The Relationship between Law and Psychology: A Study of Interdisciplinarity in Research

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Abstract

Interdisciplinary research between law and psychology is a growing field of study. However, the methodology behind such research has been subject to challenges and alternate proposals for how the two disciplines should be combined. This thesis undertakes an in-depth methodological analysis of the relationship between law and psychology, seeking to clarify the reasons, methods, and benefits of bringing these two disciplines together. The thesis engages with case studies of psycho-legal and interdisciplinary research, and with the literature on the methodology of psycho-legal and interdisciplinary research. A comparative analysis of how these sources have addressed the relationship between law and psychology will highlight the debates and conflicts which have arisen regarding the important question of how these two disciplines can interact. The thesis will demonstrate how the writings of Max Weber on the methodology of social sciences and the relationship between normative and empirical statements, and the more recent discussion on the value neutrality of research allow these debates and conflicts to be answered.

This will lead to the establishment of a new methodological framework for psycho-legal research. This framework will provide answers to the challenges that have been made towards interdisciplinary research between law and psychology, highlight weaknesses in the current methodological proposals for psycho-legal research, and provide an in-depth methodological outline for how to engage with and undertake psycho-legal and other interdisciplinary research in the future. By specifying the potential reasons, methods, and benefits of bringing law and psychology together, the thesis will emphasise the need to reformulate many of the current approaches to psycho-legal study that have been proposed and will highlight hitherto unrecognised benefits of legal interdisciplinary research.

Contents

List of Tables

List of Figures

Legislation

Police and Criminal Evidence Act 1984.

Cases

Manson v. *Brathwaite*, 432 U.S. 98 [1977].

Neil v. *Biggers*, 409 U.S. 188 [1972].

Perry v. *New Hampshire*, 565 U.S. 228 [2012].

Regina v. *Turnbull* [1976] 3 WLR 445.

State v. *Adams*, 943 A.2d 851, 860 [N.J. 2008].

State v. *Henderson*, 27 A.3d 872, 892 [N.J. 2011].

State v. *Lawson*, 291 P.3d 673 [Or. 2012].

State v. *Madison*, 109 N.J. 223, 536 A.2d 254 [1988].

Stovall v. *Denno*, 388 U.S. 293 [1967].

United States v. *Wade*, 338 U.S. 218, 228 [1967].

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Author's Declaration

I declare that, except where explicit reference is made to the contribution of others, that this dissertation is the result of my own work and has not been submitted for any other degree at the University of Glasgow or any other institution.

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Introduction

Aims and Scope of the Thesis

This thesis is motivated by the question of how legal interdisciplinary research can be carried out, concentrating on the specific example of psycho-legal research as interdisciplinary research between law and psychology. By itself, evaluating the relationship between these two separate disciplines is instinctively of interest due to the potential benefits that may arise from combining them. Many of these benefits have already been expressed by researchers involved in general or specifically psychological and legal interdisciplinary study. They include, for instance, the promise that pooling the knowledge, skills, and methods across existing disciplines will better answer current research problems, highlight and address the gaps that occur between disciplines, lead to the formation of new types of knowledge, and place research in a better position to answer the pressing issues and problems which the world currently faces today.

It is indeed, however, the wide range and variety of anticipated, and at times loosely articulated, benefits in bringing together separate disciplines such as law and psychology which leads to the question of whether all of these proposed benefits can be achieved and if so how. There are therefore several reasons that investigation into the interdisciplinary relationship between law and psychology is especially pertinent. First is the fact that conflicting answers to what the methodological approach to combining law and psychology should be have historically existed and continue to be reflected among those in the psycho-legal field today. Second is the presence of more sceptical voices which point to difficulties and challenges in the proposed approaches, casting doubt on the promise of research which seeks to combine law and psychology. Third is the observation that interest in psycho-legal studies nevertheless remains strong, with numerous scholars undertaking and encouraging such interdisciplinary research.

An evaluation of the relationship between law and psychology from a methodological perspective therefore remains of relevance not only due to the importance itself of discovering and understanding the advantages in combining legal and psychological research, but also due to indications from the existence of conflicting approaches and

critiques towards psycho-legal research that combining the two disciplines may be challenging and therefore in need of deeper analysis. Since attention and interest in psycho-legal research continues, research into the potentials of the relationship between law and psychology becomes relevant to an active field of scholarship. Such research contributes an important benchmark against which to better understand, evaluate, and engage with current and forthcoming psycho-legal research.

This thesis will thus undertake a detailed analysis of the methodology of psycho-legal research in such a way that answers the criticisms and alternate proposals which the field has faced. The ability to answer these debates lies in the sources and methods used. The thesis engages with this topic by utilising case studies of real-life psycho-legal and interdisciplinary research, by relating psycho-legal research to the wider literature on general interdisciplinary research, and by relating interdisciplinary study for the first time to the relevant debates concerning the methodology of social sciences as originally stated by Max Weber and since evolved into the contemporary discussion regarding the value neutrality of social sciences.

The central aim of this thesis is to establish a new and more accurate framework for the methodology of psycho-legal research based on this detailed analysis. This framework will emphasise that many of the anticipated goals of interdisciplinary research can be achieved by psycho-legal research, and even expanded, but that this will require a reformulation of the methods and approaches which have thus far been proposed in the psycho-legal and interdisciplinary literature. While the focus of this thesis is on law and psychology, answering the question of how the two disciplines can interact nevertheless overlaps with many issues that are relevant for interdisciplinary study in the social sciences more generally. As such, the new framework will result in conclusions that are applicable and relevant for the more general topics of interdisciplinary and legal interdisciplinary research.

Regarding the scope of this thesis, the investigation into psycho-legal research remains at the theoretical level. In other words, it is concerned not with the practical requirements of psycho-legal research in terms of the particular skills and qualifications required by psycho-legal researchers, but rather with what the potential approach or approaches to take

towards combining law and psychology are. While the practicalities involved in carrying out psycho-legal research is an important and interesting issue to consider, the reason that this thesis nevertheless does not engage with such matters is because, as will be demonstrated, there are many debates and concerns that exist at the theoretical level and which need to be addressed first. Where the thesis touches on explanations for why certain approaches to psycho-legal research may be preferred, the focus will be on theoretical rather than practical explanations. More specifically, emphasis is on understanding whether there are reasons inherent to the disciplines of law and psychology and their relationship to exclude certain approaches to psycho-legal research as impossible, rather than whether there are external reasons that would exclude certain approaches to psycho-legal research as potentially impractical.

Methodology and Chapter Outline

The aim of this thesis is to provide a new framework for the methodology of psycho-legal research which will answer the debates that have thus far arisen regarding psycho-legal interaction. This main question will be answered by considering the relationship between law and psychology from the perspective of three related sub-questions: 1) *Why* should law and psychology be integrated? 2) *How* should the disciplines be combined? 3) *To what ends* should the disciplines be combined? As will be discussed in the first chapter of this thesis, these questions highlight and reflect where the conflict arises in the proposals that have been put forward for how psycho-legal research should be carried out. These questions also provide a new and more detailed way in which psycho-legal research is analysed, one which ensures that all aspects of the interdisciplinary relationship are considered. Focus will therefore be placed on what it is about law and psychology that suggests benefits can arise from their interaction, what the particular benefits to such interaction are, and how exactly the disciplines need to interact in order to achieve these benefits.

This thesis will draw on existing sources in order to analyse what answers have already been provided to these sub-questions. These sources include the literature on psycho-legal and interdisciplinary research, where academics have engaged in debate regarding the methodology of such research. In recognition that descriptions in literature may not match

how research is carried out in practice, case studies of psycho-legal and interdisciplinary research will be analysed. This will ensure that the thesis covers not only the academic debates that exist around the topic but also the concerns that arise through real-life research. The thesis will evaluate and compare the ways in which the three sub-questions are answered by these sources, identifying where they conflict with regard to the approaches they propose or take in real-life towards psycho-legal research. The important question that arises from these conflicting positions is which, if any, are correct and are indeed possible approaches to psycho-legal research. To solve these conflicting positions and answer this question, the literature on the methodology of social sciences and in particular the value neutrality debate as originally identified by Max Weber will be drawn on as relevant.

It is noted that translating the literature on interdisciplinary research to the specific example of psycho-legal research may be problematic. An empirical analysis in Chapter 6 of the methods used by psycho-legal research on the topic of juror decision making will therefore be carried out in order to test whether there are any specific features of law and psychology which mean that interdisciplinary approaches that may be possible for other disciplines are not possible for psycho-legal research. When analysing interdisciplinary case studies in Chapter 7, this thesis will also select case studies which include interaction with law and psychology specifically, thus indicating that such interdisciplinary approaches are possible for the legal and psychological disciplines.

Chapter One

This chapter will establish the main issues and concerns that exist regarding the relationship between law and psychology, as derived from an analysis of the current and historical literature on psycho-legal research. The purpose of this is to discover the particular debates that have arisen and need to be responded to in order to provide an answer to what the possible and potential approaches to psycho-legal research are. An overview of the existing literature will enable investigation into whether the proposals for psycho-legal research demonstrated in psycho-legal literature correspond with those proposed by general interdisciplinary literature and how psycho-legal research in reality is carried out, or whether there is a disconnect between these. The chapter will identify four

proposals to psycho-legal research that differ in terms of how they answer the three sub-questions regarding the relationship between law and psychology. These will be termed the Mainstream, Alternate, Empirical Alternate, and Psychological Perspective Proposals.

Chapter Two

Psycho-legal research as a branch of more general interdisciplinary research will be the focus of this chapter. The literature on interdisciplinary research will be drawn on in order to compare the proposals for interdisciplinary research with those for psycho-legal research. It will demonstrate that there are three main proposals for the methodology of interdisciplinary research: the Inter-Disciplinary Proposal, the Multi-Disciplinary Proposal, and the Trans-Disciplinary Proposal. It will further demonstrate that the general psycho-legal literature has thus far only considered the Inter-Disciplinary Proposal as the way in which law and psychology can be combined. This will indicate that psycho-legal research at the moment is omitting other possible ways in which law and psychology can interact.

Chapter Three

In order to examine how psycho-legal research is carried out in practice, this chapter will investigate psycho-legal research on eyewitnesses as a case study. The topic of eyewitnesses is chosen because it serves as an example of a legal issue for which even psycho-legal sceptics consider appropriate for psycho-legal research. The chapter will analyse the ways in which law and psychology are combined in practice, what answers this suggests for the potential methods of psycho-legal research, and how it compares to the proposed approaches identified in the previous chapters.

Chapter Four

This chapter will evaluate the example of psycho-legal research on criminal retributive practices as a case study of an area which is contended by psycho-legal sceptics to be less appropriate for psycho-legal study. As well as furthering evidence of how psycho-legal research is carried out in practice, it will also shed light on how and whether the distinction between different types of legal issue affects the interaction between law and psychology.

The approach that is taken by psycho-legal research in this area will be compared to the approach taken by psycho-legal research in the case study of Chapter 3, and against the proposals identified in Chapters 1 and 2.

Chapter Five

The literature on the methodology and value neutrality of social sciences will be used in order to answer the questions that have arisen from the first four chapters regarding the relationship between law and psychology. The chapter will lead to the re-formulation of the Mainstream, Empirical, and Empirical Alternate Proposals into this thesis' establishment of an Inter-Disciplinary Approach as one method through which law and psychology can be brought together in psycho-legal research. The chapter will also provide justifications for why the Multi-Disciplinary and Trans-Disciplinary Proposals for psycho-legal research remain important to consider.

Chapter Six

This chapter will emphasise that the mainstream proposals for psycho-legal research which are promoted in the general psycho-legal literature focus on only one possible branch of the Inter-Disciplinary Approach, which is to use psychology to contribute to legal issues. An analysis of the other possible branch, combining law and psychology through law's relevance to psychological issues, will therefore be the focus of this chapter. The chapter will establish the two possible branches of the Inter-Disciplinary Approach - the Legal Perspective Branch and the Psychological Perspective Branch. It will clarify what each branch of psycho-legal research involves, how they differ from each other, and use the case study of jury decision-making in order to empirically test for the first time whether, and if so why, the Psychological Perspective branch of the Inter-Disciplinary Approach tends to be omitted in real-life psycho-legal research.

Chapter Seven

This chapter will analyse the two remaining proposals to psycho-legal research as identified from the interdisciplinary literature - the Multi-Disciplinary and Trans-

Disciplinary Proposals, currently omitted from psycho-legal literature. It will draw on examples of interdisciplinary research and the findings of Chapter 5 in order to analyse whether these approaches are possible and if so what such approaches to psycho-legal research would involve. The chapter will argue that the Multi-Disciplinary and Trans-Disciplinary Proposals need to be reformulated into the Additive and Third Perspective Approaches. The Additive and Third Perspective Approaches will be established and developed by this thesis as different methodological approaches that are available to psycho-legal research, on top of the Inter-Disciplinary Approach established in Chapter 5 of the thesis.

Chapter One – Psycho-Legal Literature

1.1 Overview of the Growth and Development of Psycho-Legal Research

Interest in combining psychology and law, from now on referred to as psycho-legal research, has a history, and many point to the works of psychologists such as Hugo Münsterberg, Hans Gross, William Stern, and George Arnold, writing at the turn of the 20th Century on issues including jury decision making, prevention of crime, causation and intention in law, as the beginning of this tradition.[1] Today, there exist numerous academic journals (*Law and Psychology Review, Law and Human Behaviour, Journal of Psychiatry, Psychology and Law, Behavioral Sciences & the Law, Psychology, Public Policy and Law, Psychology, Crime, and Law, Legal and Criminological Psychology*) university programs (for instance, the Psychology-Law program at the University of Nebraska first established in 1974), as well as monographs and edited books dedicated to combining legal and psychological research.[2]

A sample of these books can demonstrate the range of psycho-legal research that is being carried out. In Anne Dailey's recent book, *Law and the Unconscious*, a psychoanalytic perspective is applied to diverse areas of law including contract law, children's rights, and the criminal justice system.[3] The emerging field of Law and Emotion often draws on psychological evidence to examine topics such as family law, undue influence, judicial decision making, and healthcare law.[4] Another recent book, *The Psychology of Tort Law*,

[1] J. H. Davis, "Psychology and Law: The Last 15 Years," *Journal of Applied Social Psychology*, 19(3) (1989), pp. 199–230; F. Lösel, "Psychology and Law: Overtures, Crescendos, and Reprises," in F. Lösel, D. Bender, and T. Bliesener (eds.), *Psychology and Law: International Perspectives*, (De Gruyter, 1992), pp. 3-21; B. H. Bornstein and S. D. Penrod, "Hugo Who? G. F. Arnold's Alternative Early Approach to Psychology and Law," *Applied Cognitive Psychology*, 22(6) (2008), pp. 759–68.

[2] For overviews of the growth of psycho-legal research see J. Shaw, L. Öhman, and P. van Koppen, "Psychology and Law: The Past, Present, and Future of the Discipline," *Psychology, Crime & Law*, 19(8) (2013), pp. 643–647; A. Kapardis, *Psychology and Law: A Critical Introduction*, (Cambridge University Press, 2009), pp. 1-4.

[3] A. C. Dailey, *Law and the Unconscious: A Psychoanalytic Perspective*, (Yale University Press, 2018).

[4] H. Conway and J. E. Stannard, *The Emotional Dynamics of Law and Legal Discourse*, (Oxford: Hart Publishing, 2016).

uses lessons learnt from cognitive psychology to consider tort law standards such as causation and negligence.[5]

Likewise, turning to the publications of psycho-legal journals, the editorial introduction to the first edition of the journal *Psychology, Crime, & Law*, states one aim for the journal to be to publish research covering the etiology of criminal behavior, crime detection, psychology in the courtroom, and the management and treatment of offenders.[6] Eighteen years later, the new editor-in-chief highlighted the top five cited articles published in the journal. These articles encompassed research on cognitive interview, child sexual abuse, rehabilitation theory, sexual offenders' cognitive distortions, and detection of deception.[7] Special collections of the journal include research into personality disorder and offending, offender cognition and emotion, forensic research in offenders with intellectual and developmental disabilities, treatment programs for high-risk offenders, and the role of belief and expectancies in legal decision making.

A content analysis review of the articles published in *Law and Human Behaviour* demonstrates too the span of topics that have been published since its establishment four decades ago.[8] These include criminal jury/judicial decision making, eyewitnesses/memory and competency/criminal responsibility, sex offenders, domestic violence, civil jury/decision making and procedural justice. The authors note that the research is being cited by articles that are published elsewhere, indicating that there is high impact outside of the journal itself. Similarly, an empirical analysis into the publications from 2010-2016 by three leading psycho-legal journals finds research covering prisoners and offending, jury decision making, eyewitness, mental health, policing, interrogations and judicial decision making.[9]

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[5] J. K. Robbennolt and V. P. Hans, *The Psychology of Tort Law*, (New York University Press, 2016).
[6] C. Hollin, P. van Koppen, and A. Lind, "Psychology, Crime, & Law; Editorial Introduction to the First Edition," *Psychology, Crime & Law,* 1(1) (1994), pp. i-ii.
[7] T. A. Gannon, "A Message from the Incoming Editor: Long Live Psychology, Crime & Law," *Psychology, Crime & Law,* 18(3) (2012), pp. 229-230.
[8] L. E. Wylie et al., "Four Decades of the Journal Law and Human Behavior: A Content Analysis," *Scientometrics,* 115(2) (2018), pp. 655–93.
[9] K. Reed et al., "An Empirical Analysis of Law-Psychology Journals: Who's Publishing and on What?," in M. K. Miller and B. H. Bornstein (eds.), *Advances in Psychology and Law: Volume 3*, (Cham: Springer International Publishing, 2018), pp. 285–99.

Whilst this account demonstrates the growth and development of psycho-legal research, several observations emphasise that questions remain regarding the nature of the relationship and interaction between psychology and law. A first observation is that, seeming to belie claims of law and psychology as 'natural partners', it has taken a relatively long time to start bridging the gap between the disciplines. The explanatory factors pointed to for this go beyond experimental psychology's relative youth as a discipline compared to law, and instead stress the differences that exist between the approaches that the two disciplines take. A second observation is that although growing, the field of psycho-legal research, and to a certain relevant extent neurolaw research, is subject to challenges and scepticism, as well as suggestions for alternate approaches to psycho-legal research that could be taken.[10] The fact that these challenges and proposed alternative approaches mirror similar ones that existed historically and are arising again now indicates that they need to be addressed.

Emerging from these observations, three general questions can be identified that arise regarding the relationship between psychology and law: 1) *Why* bring the two disciplines together? Consideration of what the motivations are for undertaking psycho-legal research can clarify what it is about psychology and law as disciplines that suggests the possibility and benefits of their convergence. 2) *How* should the two disciplines be brought together? Here, it is asked what roles each discipline play in psycho-legal research, and what sorts of methods should be used in terms of how the disciplines interact with each. 3) *To what ends* are the two disciplines being brought together? Questions here relate to what are taken to be the goals of psycho-legal research, and thus what could be taken as indicators of the field's successes or failures.

These questions largely inter-relate with each other. The motivation for undertaking psycho-legal research will to a great extent predict what sorts of questions are asked, what the role for psychology and law is within the research, and what the goal of the research is taken to be. Nevertheless, it will be demonstrated through this thesis that the different

[10] This thesis takes a broad approach to psychology, as any research that examines the science of human thought and behaviour. While focusing on psychology, neuroscience and neurolaw is therefore included as relevant to the extent that it also seeks to provide scientific explanation of the human mind.

approaches to psycho-legal research proposed by commentators and psycho-legal researchers at times seem to be motivated to bring law and psychology for similar reasons and yet utilise different methods or advocate different end goals for psycho-legal research. At other times, proposals for approaches to combining psychology and law suggest alternative motivations or end goals for bringing the two disciplines together, while remaining somewhat vague or abstract regarding the particular 'How' of such approaches.

One of the purposes for separating the main question of this thesis, how interdisciplinary research between law and psychology can be carried out, into these three separate questions is therefore to highlight the divergences and at times conflicting opinions that exist regarding the relationship between law and psychology. This will indicate the important issues that have surfaced and need to be answered.

The more general and main reason, however, for bringing attention to each of these questions is that it will enable a more comprehensive analysis into not only the promises but also what the viable possibilities of psycho-legal research are. The questions establish a framework whereby it is not only the, at times abstract and speculative, reasons and proposed end goals for bringing law and psychology together which are considered and evaluated but also, importantly, how and whether combining the disciplines can realise these proposed motivations and achieve these anticipated end goals. As such, committing attention to each of these aspects of psycho-legal research will allow a better answer to be provided to the central question of this thesis.

The next section of this chapter will study how contemporary psycho-legal commentators and researchers have described the 'Why', 'How', and 'To What Ends' of psycho-legal research. This will provide a basic understanding of the mainstream approach towards psycho-legal research that is advocated, to which historical and alternative proposals for how law and psychology should interact can be compared in the third section of this chapter.

1.2 The 'Why', 'How' and 'To What Ends' of Current Psycho-Legal Literature

For many psycho-legal researchers, while recognising that the interaction between psychology and law may seem "crazy", the motivations for undertaking psycho-legal research are explained by the claim that "psychology is relevant to the law all around us".[11] Commonly referred to here is the overlap of topics that are of interest to both law and psychology, including decision and judgment making, social control and regulation of behavior, and conflict resolution.[12] The interest that both disciplines have in human behavior generally seems to serve as the point of convergence between law and psychology, and results in it being taken as "natural that those within the legal system should turn to those concerned with studying human behavior".[13] The common ground between psychologists and lawyers is identified as their shared concern with predicting, explaining and controlling behaviour. Thus, law "is about the regulation of human behavior; psychology is the study of human behavior".[14] To support arguments that psychology and law overlap more than perhaps first realized, assertions such as "Law is a system that seeks to channel human behaviour, and psychology is the science of how people learn and behave"[15] can be found**.** Similarly, Oliver Goodenough sees psychology and law as sharing "a basic preoccupation: understanding the nature of human thought and action".[16]

Goodenough is known for his optimism regarding the contributions neuroscience can make to law too, and it seems that here again the interest in human behaviour for both neuroscience and law serves as the main driver for their interaction in neurolaw as a field of study.[17] Thus, neuroscience seeks "to determine how brain function affects behaviour, and the law is concerned with regulating behaviour. It is therefore likely that developments

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[11] B. Spellman, "Psychology and Law? Someone Must Be Crazy!", *Psychology Today*, 20 March 2009, retrieved from: https://www.psychologytoday.com/us/blog/just-thinking/200903/psychology-and-law-someone-must-be-crazy-0, accessed on 03/12/2018.
[12] D. Krauss and B. D. Sales, *The Psychology of Law: Human Behavior, Legal Institutions, and Law*, (Washington, D.C: American Psychological Association, 2015); J. H. Davis, "Psychology and Law: The Last 15 Years," *Journal of Applied Social Psychology*, 19(3) (1989), pp. 199–230.
[13] Davis, "Psychology and Law: The Last 15 Years," p. 120.
[14] Kapardis, *Psychology and law: A critical introduction*, p. 5.
[15] B. J. Winick, "Therapeutic Jurisprudence: Enhancing the Relationship Between Law and Psychology," *Current Legal Issues*, 9 (2006), pp. 30-48, p. 31.
[16] O. R. Goodenough, "Can Cognitive Neuroscience Make Psychology a Foundational Discipline for the Study of Law?," in B. Brooks-Gordon and M. Freeman (eds.), *Law and Psychology* (Oxford University Press, 2006), pp. 77-91, p. 77.
[17] O. R. Goodenough and M. Tucker, "Law and Cognitive Neuroscience," *Annual Review of Law and Social Science,* 6(1) (2010), pp. 61–92.

in neuroscience will increasingly be brought to bear on the law".[18] Again, sentiments can be found of the inevitability of this development, and of the naturalness of law and neuroscience as partners.[19] To provide evidence that this field too is growing, one can point to the organisations and research groups that have been formed, for instance The Neuroethics Society, The Research Network on Law and Neuroscience, and the articles, edited books and monologues that have been published on the topic of neurolaw.[20]

Basing the main reason or motivation for undertaking psycho-legal or neurolaw research on how psychology and neuroscience overlap with law in terms of each discipline's interest in human behaviour seems to carve out a particular role for psychology and neuroscience in legal interdisciplinary work. This role has a strong emphasis on using psychology and neuroscience to reveal incorrect assumptions about human behaviour that the law makes. Positioning law as a regulator of human behaviour, it therefore "follows that legal psychologists are interested in evaluating the assumptions that the law must make about human behavior".[21]

This focus on using psychology to reveal incorrect assumptions that the law makes about human behaviour is demonstrated by looking at the type of psycho-legal research that seems to be most often undertaken. Thus, Dailey focuses on legal presumptions of human rationality as a starting point for her argument that such presumptions are often incorrect, as shown by psychoanalysis, and can therefore lead to unjust legal judgments. In the field of Law and Emotion, one main goal is to draw on psychology as well as other disciplines to reveal the "implicit and explicit assumptions about emotion that are found in every area of law".[22] Psycho-legal research into jury or judicial decision making most often uses psychology to reveal the effect of extra-legal factors on their decision-making, using this to

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[18] The Royal Society, *Brain Waves Module 4: Neuroscience and the Law*, (London: The Royal Society Science Policy Centre, 2011), p. v.
[19] Goodenough and Tucker, "Law and Cognitive Neuroscience"; O. D. Jones et al., "Law and Neuroscience," *The Journal of Neuroscience: The Official Journal of the Society for Neuroscience*, 33(45) (2013), pp. 17624-17630.
[20] For an overview of the development of neurolaw, see pp. 63-5 Goodenough and Tucker, "Law and Cognitive Neuroscience."
[21] J. R. P. Ogloff, "Two Steps Forward and One Step Backward: The Law and Psychology Movement(s) in the 20th Century," *Law and Human Behavior*, 24(4) (2000), pp. 457-483, p. 467.
[22] S. A. Bandes and J. A. Blumenthal, "Emotion and the Law," *Annual Review of Law and Social Science*, 8(1) (2012), pp. 161-181, p. 162.

challenge the assumption that such decisions are always made according to the law.[23] Research into eyewitnesses and confessions similarly focuses on using psychology to challenge the law's assumptions of their accuracy or truth.[24]

Michael Pardo and Dennis Patterson's way of categorising neurolaw research highlights how neuroscience is often used in this way too.[25] Their categorisation focuses on the arguments that are commonly made for how neuroscience can be applied to legal issues. What is noteworthy is that many of these arguments are based on using neuroscience to uncover incorrect assumptions the law makes about human behaviour. Pardo and Patterson categorise neurolaw research into proof, doctrine, and theory. In the first category, neuroscience is used to provide evidence for the existence or non-existence of a fact that the law has identified as legally relevant to the legal dispute. Importantly for Pardo and Patterson, "neurolaw claims in this category are not about *changing the law*; they are about improving the application of already-established legal categories".[26] In the second, neuroscience is used to analyse legal doctrine. Typically, claims are made here that neuroscience can demonstrate that the legal doctrine relies on false assumptions, and therefore the law should be changed by modifying legal criteria. The third category, theory, involves claims that neuroscience can contribute to abstract theoretical issues that are of relevance to law. Some of the arguments in this area include those related to free will and responsibility, morality, and theories of criminal punishment.[27] The claims under this last category also work within a framework of using neuroscience to reveal incorrect legal assumptions and therefore argue for change to legal requirements.

This categorisation is informative for the relationship between psychology and law, where claims for the application of psychology to law follow similar arguments, as demonstrated

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[23] See for example C. L. Ruva, "From the Headlines to the Jury Room: An Examination of the Impact of Pretrial Publicity on Jurors and Juries," in M. K. Miller and B. H. Bornstein (eds.), *Advances in Psychology and Law: Volume 3*, (Cham: Springer International Publishing, 2018), pp. 1–39. Psycho-legal research on jury decision making is discussed on more detail in Chapter 6.
[24] See Chapter 3 which analyses such research in more depth.
[25] D. Patterson and M. S. Pardo, "Introduction to Philosophical Foundations of Law and Neuroscience," in D. Patterson and M. S. Pardo (eds.), *Philosophical Foundations of Law and Neuroscience* (Oxford University Press, 2016), pp. 1-8.
[26] Patterson and Pardo, "Introduction to Philosophical Foundations of Law and Neuroscience", p. 3.
[27] For an example see J. Greene and J. Cohen, "For the law, neuroscience changes nothing and everything," *Philosophical transactions of the Royal Society of London. Series B, Biological sciences*, 359(1451) (2004), pp. 1775-1785.

above and as commentated on by Mark Small who undertook an analysis of articles appearing in *Law and Human Behavior* from 1988 to 1993.[28] Small's findings were that the majority of the articles were concerned with testing the validity of an assumption that the law or legal process makes about human behaviour, with very few of the articles engaging in descriptive theories or explanatory accounts of the observed behavior.

Observable is how revealing incorrect legal assumptions using psychology or neuroscience often forms the basis for an argument to be made that the legal requirements should therefore be changed or reformed. Following the usage of the term 'legal reform' within the psycho-legal literature, this thesis also uses the term legal reform to refer to any change in legal requirements. Thus, research that finds pre-trial publicity to have a biasing effect on jurors draws as a conclusion that the courts need to find a way to reduce or eliminate this influence.[29] Returning to an example from Dailey's book, an exploration of how the law relies on inaccurate presumptions of human rationality leads to her argument against recent court cases that treat prenuptial agreements, where the influence of unconscious factors is greater, as similar to any other contract that can be entered into by rational actors.

In fact, the goals of psycho-legal and neurolaw research are often stated specifically as discovering how psychology can contribute to legal reform or improvement. Articles that consider the relationship between psychology and law often start with statements such as "psychology and psychologists have made an enormous contribution to the legal system"[30], and focus on the "many areas of psychological research that have bearing on legal practice", framing the issue as revealing how "psychology has much to offer the law".[31] The American Psychology-Law Society states its aim to be working to "advance the contributions of psychology to the understanding of law and legal institutions".[32] Similarly, whilst the journal *Psychology, Public Policy, and Law* describes itself as providing a forum "in which to critically evaluate the contributions of psychology and related disciplines

[28] M. A. Small, "Legal Psychology and Therapeutic Jurisprudence," *Saint Louis University Law Journal*, 37(3) (1993), pp. 675-700.
[29] Ruva, "From the Headlines to the Jury Room."
[30] Winick, "Therapeutic Jurisprudence", p. 30.
[31] J. McEwan, "Breaking down the Barriers," in B. Brooks-Gordon and M. Freeman (eds.), *Law and Psychology* (Oxford University Press, 2006), pp. 10-29, pp. 22-24.
[32] K. S. Douglas, "Welcome from our President", *American Psychology-Law Society*, 2018, retrieved from: https://www.apadivisions.org/division-41/index.aspx, accessed on 03/12/2018.

(hereinafter psychology) to public policy and legal issues, and vice versa",[33] interestingly the categories of articles the journal states that it publishes remain focused on how psychology can be applied or contribute to public policy and legal issues.

The emphasis on using psychology to make a call for change to legal requirements is demonstrated by authors who consider that a way to enhance the relationship between law and psychology is to apply "the insights and principles of psychology to the examination of legal rules and practices and to their improvement",[34] and that "a psychology of law should have a goal of improving all of law".[35] To mark the 125th anniversary the American Psychological Association's founding, the journal *Psychology, Public Policy, and Law* published a special issue which looked specifically at where psychology has made contributions to policy and/or law, and where psychology has failed to shape policy, implying that the former is a cause for celebration whilst the latter a cause for concern.[36]

Many other commentators explicitly view it as a failure if psycho-legal research does not lead to substantive changes in the legal requirements. It is stated to be a "cynical" position to the law and psychology movement to point out that no real waves in law have been caused, and psychology's lack of impact on legal reform is seen as an obstacle for legal psychology.[37] When considering the issues for law and psychology today, one that has cropped up in the psycho-legal literature is the need to evaluate why the law has not made "concessions" to the results of psychological research.[38] This is mirrored by those who comment on the status of neurolaw, seeing it as a requirement that the field "address challenges that continue to limit the influence and growth of cognitive neuroscience in legal academia and in the world of government and public policy"[39], and starting articles with questions such as "Why has Psychology Made only Marginal Contributions to the Study of Law?"[40]

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[33] American Psychological Association, "Psychology, Public Policy, and Law", 2013, retrieved from: https://www.apa.org/pubs/journals/law/, accessed on 03/12/2018.
[34] Winick, "Therapeutic Jurisprudence," p. 31.
[35] Krauss and Sales, *The Psychology of Law,* p. 93.
[36] M. E. Lamb, "Psycho-Legal Researchers' Impact on Policies and Legal Practices: Past and Future," *Psychology, Public Policy, and Law,* 23(4) (2017), p. 397.
[37] Ogloff, "Two Steps Forward and One Step Backward."
[38] Brooks-Gordon and Freeman, "Law and Psychology: Issues for Today," p. 14.
[39] Goodenough and Tucker, "Law and Cognitive Neuroscience," p. 63.
[40] Goodenough, "Can Cognitive Neuroscience Make Psychology a Foundational Discipline?" p. 77.

The mainstream approach to psycho-legal research that is proposed by those writing about the methods of interaction between psychology and law in the psycho-legal literature therefore seems motivated by the overlap of interest that law and psychology share in human behaviour, taking this as the reason or 'Why' of bringing the disciplines together. 'How' the disciplines are proposed to be interacting is that psychology appears as scientific expert to test for behavioural assumptions that are made by the law, with the 'To What Ends' being to use psychology to push for change or reform to legal requirements where it finds that legal assumptions are inaccurate according to psychology. What is noticeable is that these answers to the 'Why', 'How' and 'To What Ends' of psycho-legal research bear a strong resemblance to the answers to these questions provided by a particular approach to psycho-legal research that was espoused by Hugo Münsterberg, often considered to be the father of psycho-legal study.

Münsterberg's book, *On the Witness Stand*,[41] is generally taken as among the first works which mark the beginning of psychology's interest in law.[42] An advocate for 'Applied Psychology', Münsterberg introduces his book as a challenge to those within the legal profession who are "sure that they do not need the experimental psychologist"[43], who "go on thinking that their legal instinct and their common sense supplies them with all that is needed and somewhat more", and who make no "concession to the spirit of modern psychology".[44] Münsterberg's topics focused on criminal law and in particular criminal trial proceedings, covering how psychology research can reveal factors that can be expected to lead to, among others, false confessions, inaccurate eyewitness memory, and suggestibility of jurors through trial and pre-trial factors. Within this book, it can therefore be seen that for Münsterberg, the main motivation for psycho-legal research is to challenge

[41] H. Münsterberg, *On the Witness Stand: Essays on Psychology and Crime,* (New York: Doubleday, 1908).
[42] E. S. Magner, "Wigmore Confronts Münsterberg: Present Relevance of a Classic Debate," *The Sydney Law Review,* 13(2) (1991), pp. 121-137; Davis, "Psychology and Law: The Last 15 Years"; Lösel, "Psychology and Law: Overtures, Crescendos, and Reprises." Also see B. H. Bornstein and J. S. Neuschatz, *Hugo Münsterberg's Psychology and Law: A Historical and Contemporary Assessment,* (New York, NY: Oxford University Press, 2019), for a recent summary of Münsterberg's work and an analysis in the first chapter of the Wigmore debate it initiated, as discussed below.
[43] Münsterberg, *On the Witness Stand: Essays on Psychology and Crime,* p. 10.
[44] Münsterberg, *On the Witness Stand: Essays on Psychology and Crime,* p. 11.

the law by using psychology to reveal where the law does not reflect psychological reality, with the end goal to ensure that the legal requirements are changed so that they follow the science of psychology.

The topics which Münsterberg focused on is reflected too by the topics of psycho-legal research that appear to be most popular today. Whilst the scope of research being undertaken is broad, reviews of psycho-legal articles show that the majority relate to issues of criminal jury and judicial decision making and eyewitness/memory, and that these are also among the most cited articles.[45] Most articles are also found to be original data reports, with much fewer concept and review papers.[46]

1.3 Challenges and Alternative approaches to Psycho-Legal Research

Münsterberg's approach as reflected in the mainstream contemporary approach in psycho-legal literature endorses what seems to be a particular way of answering the questions surrounding the nature of the relationship between psychology and law in psycho-legal research. A different consideration of the relationship between law and psychology can be seen in the critiques that Münsterberg at his time faced from the legal community and which are now mirrored by those who are more cautious and critical about some of the claims made by psycho-legal research. A consideration of alternate proposed approaches to psycho-legal research, taken then and suggested recently, also reflect different answers to the potential reasons, methods, and goals for bringing law and psychology together.

A historical overview shows that the development of psycho-legal research has not been smooth. The law and psychology movement is generally described as progressing in two stages, with the initial impetus at the beginning of the 21st Century, a lull in the 1940s/50s, before a rise from the 1960s onwards.[47] The maturity of psychology, and especially cognitive psychology, seems to be a main contributor to the rise in psycho-legal research

[45] Reed et al., "An Empirical Analysis of Law-Psychology Journals"; Wylie et al., "Four Decades of the Journal Law and Human Behavior."
[46] Reed et al., "An Empirical Analysis."
[47] Ogloff, "Two Steps Forward"; Davis, "Psychology and Law: The Last 15 Years."

from the 1960s.[48] However, an analysis of the challenges made to Münsterberg, as well as the challenges made to modern psycho-legal and neurolaw research that resembles Münsterberg's approach, suggests that the development and growth of psychology as a discipline does not answer them. Whilst the shared interest in human behaviour make law and psychology appear as natural partners, an observation of the amount of time it seems to have taken to start bridging the gap between them casts doubt on this too. Commentators explain the delay by pointing not only to experimental psychology's relative youth as a discipline compared to law and therefore its need to develop valid and reliable findings, but also to the fact that there are significant differences in the approaches of the two disciplines. For instance, differences between psychology's empirical versus law's normative approach, and the comfortable existence of multiple theories in psychology based on probabilistic findings versus the goals of uniformity and certainty in law.[49] Thus:

> The law is based on common-sense psychology which has its own model of man, its own criteria...its own values. Common-sense explanation in the law is supported by the fact that workable legal processes have evolved under close scrutiny over many centuries. It is in this sense 'proven'. But this is quite different from explanation in terms of psychological theory backed by empirical evidence of statistically significant relationships.[50]

To the extent that modern psycho-legal research takes an approach similar to Münsterberg's, the challenges that Münsterberg faced remain relevant, and unanswered by simply pointing to psychology or neuroscience's growth as disciplines. This section will therefore move on to address these.

Münsterberg's book was not warmly received by the legal profession. Among the most critical responses to *On the Witness Stand* is Wigmore's satirical article "Professor Münsterberg and the psychology of testimony: being a report of the case of Cokestone *v.*

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[48] For instance Lösel in "Psychology and Law" attributes the rise in psycho-legal research in the 1970s to the expansion in German universities of general psychology.
[49] Lösel and Kapardis, *Psychology and law: A critical introduction*, (Cambridge University Press, 2009).
[50] D. P. Farrington, K. Hawkins, and S. M. Lloyd-Bostock, "Introduction: doing Psycholegal Research" in D. P. Farrington et al. (eds.), *Psychology, Law and Legal Processes*, (London: MacMillan, 1979), p. XIII.

Münsterberg",[51] the publication of which is also credited for contributing to the decline then of research on eyewitness performance.[52] Through this article, Wigmore describes a trial where Cokestone, representing the law, on one side defends its reputation against Münsterberg, representing psychology. Depicting psychology and law on opposing sides of a legal dispute vividly demonstrates how Wigmore perceived Münsterberg's approach as an attack on the legal profession. The concluding argument made by Wigmore's plaintiffs, that they had not "brought this suit for any other purpose than the necessary one of vindicating their profession, in the eyes of the community"[53] reinforces this.

Many of the questions which Wigmore poses for Münsterberg concern the validity and reliability of the psychological findings which Münsterberg argues should be applied in legal proceedings. Thus, Wigmore emphasises the fact that not all psychologists agree with the methods Münsterberg advocates. A second challenge raised by Wigmore is whether the methods Münsterberg proposes actually help to address the legal issue. This challenge refers mainly to Münsterberg's endorsement of the association-method whereby mental associations are used to diagnose guilt.[54] Regardless of the reliability or validity of such tests, Wigmore notes that in any case the method proves only that someone knows about the facts, not how they know the facts, failing to discriminate between a guilty doer and a mere spectator. A third challenge is whether the psychological methods, such as the association-method, are practical. Issues including length of time required to administer the test and the relative difficulty of carrying it out compared with other means that seem to provide similarly secure results are mentioned.

Wigmore's criticisms over Münsterberg's approach are reflected in Morse's critical analysis of the neurolaw and psycho-legal research being carried out today. Morse argues that neurolaw research can be categorised into two main different groups; those that make

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[51] J. H Wigmore, "Professor Münsterberg and the Psychology of Testimony," *Illinois Law Review,* 3 (1908), p. 399.
[52] J. C. Yuille, M. Ternes, and B. S. Cooper, "Expert Testimony on Laboratory Witnesses," *Journal of Forensic Psychology Practice,* 10(3) (2010), pp. 238-251.
[53] Wigmore, "Professor Münsterberg and the Psychology of Testimony," p. 431.
[54] Typically, a stimulus associated with the crime is shown to the suspect and the suspect's reaction is taken to indicate whether they have a mental association with the stimulus, in this way linking the suspect to the crime.

an internal contribution to law, and those that make an external critique of law.[55] Internal contributions are described as those which contribute to law by helping to reveal incorrect behavioural assumptions made by the law and therefore suggest changing existing doctrines, the need for new doctrines, or ways in which to implement current policies more effectively. External challenges are distinguished as those that use psychology or neuroscience to argue that legal doctrines and institutions are incoherent or unjustified *ab initio*. One of the examples Morse focuses on here relates to neurolaw challenges to legal responsibility and to what he has termed the "fundamental psycholegal error".[56] For Morse, this error concerns psycho-legal studies too and refers to "the mistaken belief that if science or common sense identifies a cause for human action, including mental or physical disorders, then the conduct is necessarily excused".[57]

While Morse provides numerous counter-arguments regarding external challenges to law and remains sceptical on this front, he accepts the potential of psychology to make internal contributions. However even here, like Wigmore he also points out the need to test the practicalities of any changes that are suggested by empirical data. One internal contribution Morse considers is the ability of neuroscience to help implement criminal sentencing policies more effectively. He sees the potential relevance of neuroscience in helping to make more accurate predictions about future behaviour of defendants or about who would benefit from specific treatment programs. However, he also points to the need to ask whether using neurodata in such cases would be cost-benefit justified.

Wigmore and Morse therefore seem to accept the motivation for undertaking psycho-legal research as one based on the fact that psychology does have a role to play in testing legal assumptions. It is towards the 'How' and 'To What Ends' of psycho-legal research that Wigmore and Morse appear to have differing views to those of Münsterberg. For Wigmore and Morse, the questions psycho-legal research should ask include how practical and cost-effective psychological suggestions for reform to legal requirements are, and this will affect the goals of psycho-legal research, which are no longer necessarily to push for legal reform, but to provide data that can help to make that decision.

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[55] S. J. Morse, "Lost in Translation? An Essay on Law and Neuroscience," in M. Freeman (ed.), *Law and Neuroscience*, (Oxford University Press, 2011).
[56] S. J. Morse, "Brain and Blame," *Georgetown Law Journal*, 84(3) (1996), p. 527.
[57] Morse, "Brain and Blame," p. 531.

The differences in Wigmore and Morse's answers to 'How' and 'To What Ends' of psycho-legal research are reflected by an approach that was being taken at around the same time that Münsterberg was writing, but which was in many ways different. In 1906, two years prior to the publication of *On the Witness Stand*, Arnold published the book *Psychology Applied to Legal Evidence and Other Constructions of Law*.[58] Arnold's approach to psychology and law has been described as "tempered and moderate" in comparison with Münsterberg's "combative" tone.[59] One important way in which this is demonstrated is in Arnold's discussion of what he envisages the relationship between law and psychology to be. Rather than challenging the whole legal profession, Arnold pinpoints a particular type of legal scholarship which is the focus of his critique. Described as the "strict narrow type", the lawyer under this brand of scholarship claims that his reasonings, even if based on "presumptions which are at variance with both fact and psychological truth", are "' legal' and therefore must be right", that his "conclusions may offend both common sense and the plain man's feeling of natural justice, but they are warranted by his legal precedents and therefore are beyond dispute".[60] Against this, Arnold acknowledges and sides with another type of legal scholarship. The lawyer here neither ignores psychological insights nor "makes a concession" of law to psychology. Instead, he "allows that the law does not always aim at what is usually known as truth, but affirms that progress is being made towards placing the law of evidence on broad and scientific, and therefore practical foundations" and making "'formal truth' coincide, as far as possible, with 'real truth'".[61] Rather than conceding to psychology, Arnold states that the law should "note the possibility of the psychological view being contrary to the legal one and to explain *en passant* why the former must be rejected".[62]

Thus, it is recognised that the psychological view can be rejected by law, as long as some justification can be provided, and that the legal truth cannot coincide entirely but only to a certain extent with the truth indicated by science. Unlike the concern that Wigmore showed

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[58] G. F. Arnold, *Psychology Applied to Legal Evidence and Other Constructions of Law*, (Thacker, Spink and Company, 1906).
[59] Bornstein and Penrod, "Hugo Who?".
[60] Arnold, *Psychology Applied to Legal Evidence*, pp. 2-3.
[61] Arnold, *Psychology Applied to Legal Evidence*, p. 3.
[62] Arnold, *Psychology Applied to Legal Evidence*, p. 4.

over Münsterberg's combative approach, where psychology and neuroscience are used to argue that the law is illogical, Arnold therefore seems to encourage more of a dialogue between the disciplines, allowing explanations or justifications for why the law might not coincide with the psychological truth. This also seems closer to the role Morse views psychology and neuroscience playing for his internal contributions category, where empirical data can suggest or help inform legal change, subject to cost-benefit analyses.

Following Morse's examples of those neurolaw claims he classifies as external challenges to law, it can be seen that one of the other main concerns Morse has is that the empirical evidence which neuroscience provides has limited contributions to make to answering law's normative questions. The examples Morse provides for external challenges include neuroscience studies showing the different areas of the brain that are activated when making punishment decisions, and neuroscience studies showing that psychopaths demonstrate different brain activity when carrying out moral judgment tasks. Morse highlights that these findings by themselves have limited conclusions to provide to the normative questions of whether psychopathy should be an excuse for legal responsibility, or of how legal punishment decisions should be made.

This is a similar critique that Pardo and Patterson make in their book *Mind, Brains and Law*.[63] Throughout this book, Pardo and Patterson focus on the difference between empirical and normative or conceptual questions, using this distinction to evaluate some of the claims made by neurolaw scholars and argue that many of these claims contain inferential and conceptual errors. Taking lies as an example, the conceptual question is defined as concerned with what constitutes lying, what it means to say that someone is lying. The empirical question on the other hand is distinguished as concerned with how to measure instantiations of lying. Here, the empirical evidence of psychology or neuroscience has a role in providing criterial support, where evidence is provided of a faculty or attribute that is constitutive of the concept, and/or inductive support, where evidence is provided that is empirically correlated with the constitutive faculty or attribute. The value of empirical data therefore depends on how well it can test for or record the occurrence of lying. An inferential error would be using the existence of certain mental

[63] M. S. Pardo and D. M. Patterson, *Minds, Brains, and Law: The Conceptual Foundations of Law and Neuroscience*, (New York: Oxford University Press, 2014).

activity to prove that a person is lying, if the actual behaviour that corresponds with that mental activity is not the behaviour that constitutes the concept of lying. Inferential errors can be seen to relate back to Wigmore's second challenge to Münsterberg, of how the association-method does not test for the type of behaviour or knowledge that constitutes legal guilt, or more generally, of how the scientific information does not test for the instantiation of the legal criteria.

A conceptual error for Pardo and Patterson "may arise when an empirical claim purports to rely on a current concept (e.g., the concept expressed by the term 'depression') but the claim presupposes a changed concept or a mistaken view about the current one".[64] Therefore, while neuroscience is accepted as a way to provide inductive evidence that contributes to the measurement of a lie, Pardo and Patterson argue that it cannot provide the measure of lying, what it means to say that someone is lying, which as above is defined as a conceptual question.

The limits of empirical evidence to answer conceptual and indeed normative questions is highlighted by them in their chapter on the Concept of Mind. One claim examined by Pardo and Patterson here is Churchland's suggestion that neuroscience can show us when a brain is 'in control' by identifying the corresponding brain areas that are activated, therefore showing us when someone has acted voluntarily and can thus be held responsible for their actions.[65] However, for Pardo and Patterson this has the effect of flattening the normative questions of e.g. whether someone should also be held responsible for negligence, whether someone bears more responsibility for intentional versus accidental harm, or whether having a proclivity towards engaging in behaviour that limits how much we are 'in control' (e.g. drinking in excess) should give us a 'free pass' for any harm that occurs as a consequence.[66]

This concern that empirical data cannot answer normative or conceptual questions is also demonstrated by authors who are ambivalent about the contributions that neuroscience can make to law but accept neuroscience's potential to provide probative inductive evidence

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[64] Pardo and Patterson, *Minds, Brains, and Law*, p. xv.
[65] P. S. Churchland, "Moral Decision-Making and the Brain," *Neuroethics: Defining the Issues in Theory, Practice, and Policy*, 2006, pp. 3–16.
[66] See Ch. 2, p. 33 onwards from Pardo and Patterson, *Minds, Brains, and Law*.

for the existence of legal criteria. As an example, Buckholtz and Faigman begin by highlighting the 'fraught' nature of the relationship between neuroscience and law.[67] The rest of their article proposes three domains of engagement between neuroscience and law, all of which place neuroscience's role as a potentially more accurate tester for the instantiations of legal criteria. First, the authors point to the promise of neuroscience to objectively measure legally relevant mental states. Second, there is the promise of neuroscience to provide an objective measure of self-control as relevant for law. Lastly, there is the promise of neuroscience to help provide evidence of the likelihood of future criminal behaviour, where relevant for law. Similarly, to quell the fears of neurolaw sceptics, the arguments used are to highlight that "neuroscience evidence is typically introduced for well-established legal purposes—to provide fact-finders with more complete, reliable, and precise information".[68] Also emphasised is that neuroscience tends not to be used to determine a defendant's guilt or level of culpability, but is instead mostly used as mitigating evidence for serious sentences, such as the death penalty in the U.S, where the legal standard itself is much more flexible than the legal standard for evidence used to determine guilt.

This role for neuroscience and psychology, to provide probative inductive evidence, is linked to the emphasis placed by the mainstream psycho-legal literature on their ability to reveal incorrect assumptions the law makes about human behaviour. In this way, their relevance in legal interdisciplinary research is limited to the ability they have to more accurately and effectively measure the human behaviour that law deems relevant. Arguably however there is an approach for psycho-legal and neurolaw research that seeks to go beyond using psychology or neuroscience simply to test law's own assumptions. This approach draws away from focusing the motivation for undertaking psycho-legal research on the contributions which psychology can make to law, and instead considers how psychology as a separate discipline can interact with law.

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[67] J. W. Buckholtz and D. L. Faigman, "Promises, Promises for Neuroscience and Law," *Current Biology*, 24(18) (2014), pp. 861-867.
[68] D. W. Denno, "The Place for Neuroscience in Criminal Law," in D. Patterson and M. S. Pardo (eds.), *Philosophical Foundations of Law and Neuroscience* (Oxford University Press, 2016), pp. 69-84, p. 72.

The desire for psychology to move beyond acting as a servant to the law is demonstrated in Small's writings.[69] Small agrees with Pardo and Patterson that the majority of psycho-legal research focuses on testing legal assumptions and contributing in this way by showing when the law is or is not based on behavioural premises that align with empirical reality. He draws this conclusion from his analysis of the approaches to psycho-legal research taken by articles appearing in *Law and Human Behavior* from 1986 to 1991.[70] However, he sees this as only one side of the potential of psycho-legal research that he categorises as 'legal psychology', defined as "those theories that describe, explain, and predict human behaviour by reference to law".[71] Here, psychology "applies the scientific method of systematic observation, description and measurement to the study of behavior that is legally relevant".[72] This is contrasted to psychological jurisprudence, defined as "those theories that describe, explain, and predict law by reference to human behaviour".[73] For Small, the promise of legal psychology will only be fulfilled when carried out as a partnership with psychological jurisprudence. This sentiment is also echoed in his critique of research that stops at the stage of testing behavioural assumptions within law without engaging in further steps of providing descriptive theories or explanatory accounts of the observed behaviour.[74]

Small provides the example of therapeutic jurisprudence as one approach which better aligns with his notion of psychological jurisprudence.[75] The goal of therapeutic jurisprudence is to study the extent to which legal doctrine, theory and practice contribute to therapeutic or anti-therapeutic consequences. Beginning with an acknowledgement of the promise as well as perils in this approach, Small highlights how therapeutic jurisprudence must recognise the role of other values in law, including the rights of patients and how to balance this with the protection of mental health. A potential peril is specified in relying too much on psychological expertise regarding mental health, in

[69] Small, "Legal Psychology and Therapeutic Jurisprudence"; M. A. Small, "Advancing Psychological Jurisprudence," *Behavioral Sciences & the Law,* 11(1) (1993), pp. 3–16.
[70] Small, "Legal Psychology and Therapeutic Jurisprudence."
[71] Small, "Advancing Psychological Jurisprudence," pp. 11-12.
[72] Small, "Legal Psychology and Therapeutic Jurisprudence," p. 687.
[73] Small, "Advancing Psychological Jurisprudence," pp. 11-12.
[74] The critique of mainstream psycho-legal research that it does not develop psychological theories or explanatory accounts of legal behaviour has also been made by others, as will be discussed in greater detail in Ch6.
[75] Small, "Legal Psychology and Therapeutic Jurisprudence."

"removing mental health law from its freshly liberating position and returning it to its dark, paternalistic past".[76] He also mentions how therapeutic jurisprudence will become less relevant for law in areas not strictly related to mental health policy, pointing to the fact that other areas of law are created to "serve a variety of purposes, perhaps least (if at all) among them is that there is or should be a therapeutic outcome that is of consequence".[77]

The perils which Small points to bear resemblance to the concerns expressed by Morse, and Pardo and Patterson regarding the questions of 'How' and 'To What Ends' psycho-legal research should be carried out. Small does not encourage the ends of psycho-legal research to be making law 'concede' to psychological truths but like Arnold recognises that there is room for a discussion to take place between the two disciplines, with provisions of reasons or justifications for why the psychological view should be rejected in law. Similarly, Small recognises that psychology does not provide complete answers to the conceptual or normative questions that Pardo and Patterson distinguish. However, while Small acknowledges that empirical data from psychology needs to be balanced with other values in the legal system, Small does not rule out the possibility that psychology can nonetheless contribute to such issues. Thus, there is a balance to be made for Small between the importance of therapeutic outcomes and the importance of other purposes which the law needs to serve. By showing an awareness that law has purposes aside from ensuring therapeutic benefits, Small demonstrates agreement with one of the reasons provided by others for why psycho-legal research may have a limited impact on law, which is that a limited view of legal objectives is sometimes shown by psycho-legal research.[78] However, rather than dismissing any role for psychology in such debates, or entreating psychology to return to its limited role as testing for legal assumptions of human behaviour, Small sees promise in using psychology to at least make the therapeutic and anti-therapeutic effects of law known.

Moving away from a focus on psychology's or neuroscience's role as scientific expert on behavioural assumptions relevant to law therefore seems to lead in psycho-legal literature to either concerns such as those expressed by Wigmore, Morse, and Pardo and Patterson,

[76] Small, "Legal Psychology and Therapeutic Jurisprudence," p. 698.
[77] Small, "Legal Psychology and Therapeutic Jurisprudence," p. 699.
[78] For instance, see Lösel, "Psychology and Law," p. 3.

or to an approach similar to that of Arnold or Small. This movement points to the possibility of an interaction between law and psychology that goes beyond their overlapping interest in human behavior, and one that considers how psychology as a separate discipline can contribute to law. In this way, insight from how other disciplines engage with legal interdisciplinary study can be informative.

Guido Calabresi distinguishes two different approaches that are made to interdisciplinary research of law and economics.[79] First, there is Economic Analysis of Law, which uses economics as an Archimedean point from which to examine the law and in "its most aggressive and reformist mode...if it finds that the legal world does not fit, it proclaims that world to be 'irrational'."[80] This is compared to Law and Economics which seeks to discover if economic theory can explain the legal world and if not, does not immediately dismiss the legal world as irrational but asks if the law as it is actually represents 'worthy relationships' that should be retained. Emphasis is placed here on the value of explaining how law represents these worthy relationships in order to contribute to change in economic theory, which then becomes a more useful tool for legal reform in the future.[81] For Calabresi, "while in Economic Analysis of Law economics dominates and law is its subject of analysis and criticism, in Law and Economics the relationship is bilateral".[82]
What is noticeable is that much of what is criticised about Münsterberg's approach by Wigmore is directed at an approach taken by psycho-legal research that is similar to the approach taken by economics in Calabresi's Economic Analysis of Law. Thus, it is against Münsterberg's combative use of psychology to make an attack against the legal profession which Wigmore rallies against.

On the other hand, much of what Morse endorses regarding psychology and neuroscience's potential in 'internal contributions', their roles in helping to *suggest* change or reform and the need to nonetheless engage in cost-benefit analyses, aligns with psychology following an approach more similar to Calabresi's Law and Economics, which also seems closer to how Arnold and Small envisage psycho-legal research being carried out. Thus, both

[79] G. Calabresi, *The Future of Law and Economics: Essays in Reform and Recollection* (Yale University Press, 2016).
[80] Calabresi, *The Future of Law and Economics,* p. 2.
[81] Calabresi, *The Future of Law and Economics,* p. 16.
[82] Calabresi, *The Future of Law and Economics,* p. 6.

Arnold and Small do not expect law to concede to psychology but only to engage in a discussion with psychology, explaining or providing justifications for instances where the legal reality does not fit the psychological view. Likewise, Calabresi emphasises how it is not just law that should change because of economic insight, but economic theory can be impacted on too by observations of law, and the 'worthy relationships' found within law can create impetus for reform of economic theory that is unable to explain them. Small's distinction between legal psychology and psychological jurisprudence also addresses this conflict. While legal psychology plays a strong role in highlighting where law is based on incorrect behavioural assumptions to suggest legal reform, the goal of psychological jurisprudence is to explain law by reference to human behaviour, and in this way potentially learn from the law to contribute to changes in psychological theory of human behaviour.

Economic History can be taken as another example of how economics engages with interdisciplinary study, this time with the discipline of history. One recurring debate concerns the relationship between Economics and Economic History, and this debate can shed further light on the possibility that psycho-legal research may be able to not only draw on psychology to contribute to law but also draw on law to contribute to psychology.

Economic History looks at past economic phenomena and seeks to apply economic theory to these historical events. Many advocates and practitioners of economic history share and promote the underlying acknowledgement that economic theory cannot always explain the real world. For Robert Solow, economics cannot be a 'hard science' comparable to physics or chemistry because of the impossibility for economics to isolate the factors of interest and remove all sources of noise. For this reason, economic "models are more likely to be partial in scope and limited in applicability".[83] Analysis of events that happened in the past therefore enter as important ways to contextualise economic theory, to widen "the range of observations available to the theories",[84] and to be used as a source of natural experiment to test economic theory and to guide us to what to look out for in the data.[85]

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[83] R. M. Solow, "Economic History and Economics," *The American Economic Review,* 75(2) (1985), pp. 328-331, p. 331.
[84] Solow, "Economic History and Economics," p. 329.
[85] R. Abramitzky, "Economics and the Modern Economic Historian," *The Journal of Economic History*, 75(4) (2015); K. O'Rourke, "Why economics needs economic history", *VOX CEPR Policy*

While the relationship between law and psychology may not mirror that between economics and economic history entirely, the ways in which observations from history have been used to develop and test economic theory suggest the possibility that law can be used in the same way for psychology. Thus, the legal setting and context can be positioned as a provider of real-life examples for psychological theory in a similar way that history acts as a provider of such examples for economic theory. The law then can enter to contextualise psychological theory, widen the range of observations available, and be used as a source of natural experiment with which to test psychological theory or guide psychologists in what to look out for.

1.4 Summary and Conclusions

As a starting point for an analysis into the potential ways in which psycho-legal interdisciplinary research can be carried out, this chapter has evaluated the current state of psycho-legal literature itself, and what it proposes the relationship between law and psychology to be.

The main approach identified in the general psycho-legal literature, which bears similarities to the original approach endorsed by Münsterberg, answers the questions regarding the relationship between psychology and law in psycho-legal research as follows: 'Why' undertake psycho-legal research? Because the disciplines share an overlapping interest in human behaviour, and this overlapping interest suggests that psychology can intervene as scientific expert on human behaviour. 'How' should psychology and law interact in psycho-legal research? Psychology can act to reveal incorrect legal assumptions regarding human behaviour. 'To What Ends' should psycho-legal research be carried out? To make sure that legal assumptions align with the empirical reality that psychology indicates, pushing for legal reform where it doesn't. In line with the way in which legal reform is referred to by the literature, this thesis takes legal reform to mean any change in the legal requirements. This will be referred to by this thesis as the **Mainstream Proposal** for how psycho-legal research can be carried out.

Portal (24th July 2013), accessed at https://voxeu.org/article/why-economics-needs-economic-history.

This can be contrasted with the different answers that are indicated by alternate approaches in the psycho-legal literature that have existed and have been suggested, and that highlight debates surrounding how other disciplines interact in legal interdisciplinary study. Thus, for Arnold, while he seems to agree with the motivation that psychology and law should be brought together so that law can learn from psychology, he emphasises that this does not necessarily lead to an argument for legal reform. Instead, he sees the goal of such psycho-legal research to encourage discourse between the disciplines and so that the law can provide justification should it not align with psychological reality. Indeed, this alternate approach seems to address some of the challenges and sceptical opinions towards psycho-legal against an approach which relates inaccurate legal assumptions about human behaviour, and empirical data more generally, directly to a push for legal reform. For instance, Morse who argues that cost-benefit issues need to be considered first. For these commentators, the answers to the questions regarding the relationship between psychology and law are as follows: 'Why' undertake psycho-legal research? Because the disciplines share an overlapping interest in human behaviour, and as such it is possible that law can learn from psychology. 'How' should psycho-legal research be carried out? By revealing where the law has made inaccurate psychological assumptions. 'To What Ends' should psycho-legal research be carried out? Prompting either legal reform where the law does not follow psychological reality or prompting the law to justify why it does not follow psychological reality. This will be referred to by this thesis as the **Alternate Proposal** to psycho-legal research.

Further, there is a division that is made by psycho-legal sceptics regarding the kinds of legal issues for which the Alternate Proposal is possible. Morse makes a distinction between internal and external psycho-legal claims, remaining more sceptical of psychology's ability to contribute to the latter. More generally, the essential concern that has been voiced by Pardo and Patterson and other psycho-legal sceptics is that while psychology and law may be able to be brought together in the way in which Arnold proposes to provide probative evidence for the law's empirical questions, there may be relatively little that law can learn from psychology regarding answers to law's normative

and conceptual questions.[86] This will be referred to by this thesis as the **Empirical Alternate Proposal** to psycho-legal research.

An altogether different 'Why' of psycho-legal research has been somewhat tentatively proposed by Small and others in their suggestion that law could be used to develop psychological knowledge and theory. This contrasts with the 'Why' and the 'To What Ends' of the above proposals, which focus the interaction between psychology and law on the ability of psychology to contribute to law. Since this suggestion focuses on the possibility for psycho-legal research to contribute to psychological theory, this thesis will refer to this approach as the **Psychological Perspective Proposal** for how law and psychology can interact in interdisciplinary study.

These differing approaches which have been proposed attest to the questions and conflicts that remain regarding the relationship between law and psychology. Firstly, whether an argument for legal reform is necessarily formed when it is revealed that the law does not follow psychological reality. Secondly, if not, how exactly the law can 'justify' not taking account of psychological reality. Challengers have mentioned specifically the argument that practical and cost-benefit issues need to be taken account of. One question is whether the justifications against legal reform based on psychological evidence can be understood more clearly from a methodological perspective. Thirdly, whether psychology is only able to contribute to empirical legal issues and not normative or conceptual legal questions. Separately, while psychology contributing to legal issues appears to be the main motivation provided in the literature for combining the disciplines, several commentators have pointed to the potential for law to contribute to psychological theory and explanations. This gives rise to the question of whether alternative 'Why's to psycho-legal research potentially exist, and what the 'How' and 'To What Ends' of these approaches might be. In order to consider any broader possibilities for psycho-legal interdisciplinary research that exist beyond using psychology to contribute to legal issues, the next chapter will therefore turn to the more general literature on interdisciplinary research.

[86] It is noted that there is a difference between normative and conceptual issues. This thesis categorises them together to reflect how the commentators discussed in this chapter categorise both legal normative and conceptual issues as those which psychology is less able to contribute to in comparison to legal empirical issues.

Chapter Two – Interdisciplinary Literature

It has been demonstrated in the previous chapter's analysis of psycho-legal literature that the existing proposals for and critiques against the methodology of psycho-legal research focus largely on an approach that uses psychology to contribute to the law, with a minority of commentators arguing that law can also be used to contribute to psychological theory and knowledge. Notably, and perhaps surprisingly, the discussion around the methodology of psycho-legal research has remained specific to an analysis of the relationship between law and psychology and has not yet drawn on potential lessons that could be learnt from the more general case of interdisciplinary research. Similarly, the discussion around the methodology of interdisciplinary research also remains on the whole concerned with the question of how any disciplines can interact rather than specific disciplines. This thesis will therefore be the first attempt to relate the interdisciplinary debate to the specific example of psycho-legal research. The literature on interdisciplinary research will be shown to promote the interaction of disciplines in additional ways to those currently discussed by the psycho-legal specific literature. This chapter will further explore these insights and relate them to this thesis' investigation of the potential ways in which psychology and law can interact.

2.1 Interdisciplinary Research

Interdisciplinary research has been termed a twentieth century phenomenon, due to both the fact that this is when the term interdisciplinary itself first began to emerge[1] and when greater interest began to be shown by researchers, funding bodies, and research institutes into interdisciplinary research.[2] Thus it has been estimated that around 300-400 articles are published every year on the topic of interdisciplinarity.[3]

[1] J. T. Klein, *Humanities, Culture, and Interdisciplinarity: The Changing American Academy*, (Suny Press, 2012).
[2] On the history of interdisciplinarity, see generally S. Choi and K. Richards, *Interdisciplinary Discourse: Communicating Across Disciplines*, (London: Palgrave Macmillan UK, 2017).
[3] H. J. Graff, *Undisciplining Knowledge: Interdisciplinarity in the Twentieth Century*, (Baltimore, Maryland: Johns Hopkins University Press, 2015).

At the same time, defining what interdisciplinary means has been acknowledged to be a difficult task. The term has been described as slippery,[4] an elusive concept,[5] and as an imprecise concept which is difficult to define.[6] It has also been noted that numerous different terms and definitions of interdisciplinary exist in the literature.[7] Descriptions of interdisciplinarity remain general and abstract, providing brief definitions of interdisciplinarity as "the integration of disciplines within a research environment"[8] or as "communication and collaboration across disciplines"[9], using terms such as "convergence", "fusion", and "synthesis" when seeking to describe what interdisciplinary research is.[10]

There have been several attempts in the past to provide more detailed definitions. For instance:

> Interdisciplinary research is any study or group of studies undertaken by scholars from two or more distinct scientific disciplines. The research is based upon a conceptual model that links or integrates theoretical frameworks from those disciplines, uses study design and methodology that is not limited to any one field, and requires the use of perspectives and skills of the involved disciplines throughout multiple phases of the research process.[11]

> Interdisciplinary research is a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts, and/or

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[4] J. Moran, *Interdisciplinarity*, 2nd ed., (London; New York, N.Y: Routledge, 2010).
[5] V. B. Mansilla, "Assessing Student Work at Disciplinary Crossroads", *Change (New Rochelle, N.Y.)*, 37(1) (2005), pp. 14-21, p. 16.
[6] J. Qin, F. W. Lancaster, and B. Allen, "Types and Levels of Collaboration in Interdisciplinary Research in the Sciences", *Journal of the American Society for Information Science*, 48(10) (1997), pp. 893–916.
[7] T. Sakao and S. A. Brambila-Macias, "Do We Share an Understanding of Transdisciplinarity in Environmental Sustainability Research?", *Journal of Cleaner Production*, 170 (2018), pp. 1399–1403.
[8] Qin, Lancaster, and Allen, "Types and Levels of Collaboration".
[9] J. A. Jacobs and S. Frickel, "Interdisciplinarity: A Critical Assessment", *Annual Review of Sociology*, 35(1) (2009), pp. 43-65, p. 43.
[10] D. B. Pedersen, "Integrating Social Sciences and Humanities in Interdisciplinary Research", *Palgrave Communications*, 2(1) (2016), p. 4.
[11] S. W. Aboelela et al., "Defining Interdisciplinary Research: Conclusions from a Critical Review of the Literature", *Health Services Research*, 42(1) (2007), pp. 329–346.

> theories from two or more disciplines or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.[12]
>
> An adjective describing the interaction among two or more different disciplines. This interaction may range from simple communication of ideas to the mutual integration of organising concepts, methodology, procedures, epistemology, terminology, data, and organisation of research and education in a fairly large field. An interdisciplinary group consists of persons trained in different fields of knowledge (disciplines) with different concepts, methods, and data and terms organised into a common effort on a common problem with continuous intercommunication among the participants from the different disciplines.[13]

These descriptions provide more elaboration on what may be integrated between disciplines, such as theoretical frameworks, data, techniques, perspectives etc., and the general aims of such research as solving common problems or increasing understanding. Nevertheless, questions remain regarding how theoretical frameworks between different disciplines can be integrated, and how exactly bringing disciplines together can help to solve common problems.

The noted difficulty in definition perhaps arises specifically from the fact that there are multiple different ways in which disciplines can be brought together. Thus, the reason that Moran views the term as slippery is exactly because it can "suggest forging connections across the different disciplines; but it can also mean establishing a kind of undisciplined space in the interstices between disciplines, or even attempting to transcend disciplinary boundaries altogether".[14]

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[12] National Academies, *Facilitating Interdisciplinary Research*, National Academy of Sciences, National Academy of Engineering, and Institute of Medicine, (Washington, DC: The National Academies Press, 2005), p. 2.
[13] Organization for Economic Cooperation and Development, *Interdisciplinarity: Problems of Teaching and Research in Universities*, (Organization for Economic Cooperation and Development, 1972), pp. 25-26.
[14] Moran, *Interdisciplinarity*, p. 14.

Reflecting this is the fact that many different forms and typologies of interdisciplinarity have been proposed, each suggesting different ways in which disciplines can interact with each other. A distinction has been made for instance between broad and narrow interdisciplinarity.[15] This distinction relates to the nature of the disciplines themselves and the extent to which they have compatible methodologies. Another distinction noted is between using interdisciplinary research to integrate knowledge together or to more simply encourage some form of interaction or communication between disciplines. Several authors have created distinct categories of interdisciplinary research. Andrew Barry and Georgina Born for instance separate interdisciplinary research into three categories.[16] In one, disciplinary components are integrated in relatively symmetrical form. In another, one discipline plays the role of servant to the others. In the third, interdisciplinary research is motivated by antagonism towards existing forms of disciplinary knowledge or practice. Lisa Latucca too has proposed three different types of interdisciplinarity.[17] Informed interdisciplinarity uses other disciplines to help answer the questions of another discipline. Synthetic interdisciplinarity concerns questions which exist at the intersection or in the gaps between disciplines. Transdisciplinarity as the third category involves applying theories, concepts, or methods across disciplines. The aim here is to develop an overarching synthesis across disciplines.

As such, it can be seen that "multiple 'interdisciplinarities' exist"[18] and that interdisciplinary research can be used to promote several different proposals, be it, for example, using the tools of one discipline to answer the questions of another or to challenge the boundaries of existing disciplinary knowledge.[19] The main differences that these proposed categories indicate is the extent to which integration occurs between

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[15] Choi, and Richards, *Interdisciplinary Discourse*, p. 45.
[16] A. Barry, and G. Born, "Interdisciplinarity: Reconfigurations of the Social and Natural Sciences," in A. Barry and G. Born (eds.), *Interdisciplinarity: Reconfigurations of the Social and Natural Sciences*, (Oxford: Routledge, 2013), pp. 1-57.
[17] L. R. Lattuca, *Creating Interdisciplinarity: Interdisciplinary Research and Teaching among College and University Faculty*, (Vanderbilt University Press, 2001).
[18] K. Huutoniemi et al., "Analyzing Interdisciplinarity: Typology and Indicators", *Research Policy* 39(1) (2010), pp. 79–88, p. 80.
[19] Also see R. Frodeman and J. T. Klein, "Typologies of Interdisciplinarity: The Boundary Work of Definition," in R. Frodeman (ed.), *The Oxford Handbook of Interdisciplinarity*, 2nd edn., (Oxford University Press, 2017), pp. 21-33.

disciplines[20] and whether the questions that are sought to be answered are 'disciplinary', in other words within disciplinary perspectives, or instead are questions that belong outside of disciplines; existing at the 'gaps' between disciplines, or seeking to challenge existing disciplinary boundaries or to synthesise disciplines together.

These differences are encapsulated best by the categories that are most often used in the literature when discussing the different ways in which disciplines can be brought together in interdisciplinary research. These are the categories of multi-disciplinary, inter-disciplinary and trans-disciplinary research.[21]

Broadly, multi-disciplinary is used to refer to research in which two or more disciplines are brought together around the same topic or issue but not integrated. As such, they each contribute their separate perspectives on the same topic but do not combine or integrate these in any way. This has been described as being an additive rather than integrative approach. Each discipline in the multi-disciplinary approach remains separate and unchanged by the research, with the role of the researcher being to describe how different disciplinary perspectives engage with a particular topic or issue. Julie Klein therefore describes multi-disciplinary research as when serial views of a topic or problem are addressed separately by each discipline.[22]

An example can be to consider the topic of unemployment. A multi-disciplinary approach to this topic can seek to provide summaries of how each discipline has engaged with and addressed this topic. From the perspective of psychology, the questions of interest concern

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[20] J. D. Aram makes a similar point in "Concepts of Interdisciplinarity: Configurations of Knowledge and Action", *Human Relations (New York)*, 57(4) (2004, 2016), pp. 379–412.
[21] For instance, see Sakao and Brambila-Macias, "Do We Share an Understanding of Transdisciplinarity?"; P. Blackmore and C. B. Kandiko, "Interdisciplinarity within an Academic Career", *Research in Post-Compulsory Education*, 16(1) (2011), pp. 123–34, p. 125; F. Darbellay, "Rethinking Inter- and Transdisciplinarity: Undisciplined Knowledge and the Emergence of a New Thought Style", *Futures: The Journal of Policy, Planning and Futures Studies*, 65 (2015), pp. 163–174, p. 165; Choi, and Richards, *Interdisciplinary Discourse*, pp. 51-52; Klein, *Typologies of Interdisciplinarity*; R. Frodeman, *Sustainable Knowledge: A Theory of Interdisciplinarity*, (Basingstoke: Palgrave Macmillan, 2013), p. 3; Aboelela et al., "Defining Interdisciplinary Research", pp. 337-340; Klein, *Interdisciplinarity: History, Theory, and Practice*, pp. 56-73; M. H. Strober, "Habits of the Mind: Challenges for Multidisciplinary Engagement", *Social Epistemology*, 20(3–4) (2006), pp. 315–331; A. Barry, G. Born, and G. Weszkalnys, "Logics of Interdisciplinarity", *Economy and Society*, 37(1) (2008), pp. 20–49.
[22] Klein, *Typologies of Interdisciplinarity*.

how unemployment may be able to be explained through individual thought and behaviour. For instance, whether certain individual traits such as motivational levels, personality differences, or childhood experiences can explain instances of unemployment. Psychological research may also have studied the effect of unemployment on human thought and behaviour, for instance how the experience of unemployment may affect interpersonal relations or individual motivational levels. On the other hand, from the perspective of law, the questions of interest around unemployment concern the legal rights and obligations of those concerned. For instance, the legal rights protecting employees against unfair dismissal, or the legal rights of the unemployed to state benefits. The current interdisciplinary literature proposes that a multi-disciplinary approach would present the psychology research on unemployment, followed by the legal research on unemployment. This method would 'add' together in a serial fashion the different ways in which each discipline engages with the topic, with each discipline remaining unchanged.

Inter-disciplinary[23] research on the other hand is proposed by the literature to bring two or more disciplines together in a way which integrates them but where the disciplines nevertheless remain distinguishable. The method of such an approach is to use one discipline to answer the question posed by another. An example used by Klein is that of a geographer drawing on economic concepts and knowledge of development in order to feed this into regional analysis.[24] Rather than adding different perspectives together as is done in the proposals for the multi-disciplinary approach, the perspective of one discipline is integrated into the perspective of another, creating change within the latter discipline. Thus, the economic concepts around development are integrated into a geographer's regional analysis.

The example of unemployment can again be drawn on this time in relation to how the same topic gives rise to the possibility of inter-disciplinary research. For instance, evidence from psychology regarding the behaviour of the employee or employer may be relevant in

[23] Following the common usage of these terms in the literature, the terms interdisciplinary and inter-disciplinary are used by this thesis as separate concepts. Interdisciplinary is the broader concept that refers to any research that deals with two or more disciplines. The hyphenated term inter-disciplinary refers to a particular type of interdisciplinary research that is proposed by the literature.

[24] Klein, *Interdisciplinarity: History, Theory, and Practice*, p. 58.

testing the legal criteria for whether unfair dismissal has occurred. As such, psychological information would feed into the legal question of whether an employee has been unfairly dismissed. The psychological information, in other words, becomes integrated into the legal requirements, while both disciplines nevertheless still remain separate and distinguishable.

Lastly, trans-disciplinary research has perhaps most abstractly been described as an approach which seeks to go beyond disciplines themselves by providing an overarching synthesis of unified knowledge such that it is difficult to identify any individual discipline. Disciplines instead become subordinate to a larger framework.[25] There are three consistently mentioned aspects of trans-disciplinary research in the literature.[26] These are firstly an emphasis on using trans-disciplinary research to solve 'real-world' problems.[27] Examples of problems which are usually provided as particularly suitable for trans-disciplinary research include global poverty, reducing obesity, and addressing climate change issues. Trans-disciplinary research is considered to be required for addressing these issues due to the complexity of these topics and the fact that they tend to overlap to a great extent with existing disciplines. Secondly, an emphasis on the involvement of non-academic actors in the production of knowledge.[28] Thirdly, the view that trans-disciplinary research is a movement which is critical of existing disciplinary perspectives or boundaries. Frodeman thus emphasises trans-disciplinary as a "shift away from elevating

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[25] Klein, *Interdisciplinarity: History, Theory, and Practice*, pp. 65-66.
[26] Klein, *Typologies of Interdisciplinarity*, pp. 29-31.
[27] P. O'Campo et al., "Introducing a Transdisciplinary Approach to Applied Urban Health Research", in M. Kirst et al. (eds.), *Converging Disciplines: A Transdisciplinary Research Approach to Urban Health Problems*, (New York, NY: Springer New York, 2011), pp. 3-11, pp. 7-8; A. L. Carew and F. Wickson, "The TD Wheel: A Heuristic to Shape, Support and Evaluate Transdisciplinary Research", *Futures: The Journal of Policy, Planning and Futures Studies*, 42(10) (2010), pp. 1146–1155; C. Pohl, "Transdisciplinary Collaboration in Environmental Research", *Futures: The Journal of Policy, Planning and Futures Studies*, 37(10) (2005), pp. 1159-1178, pp. 1160-1161; G. H. Hadorn et al., "The Emergence of Transdisciplinarity as a Form of Research", in G. H. Hadorn et al. (eds.), *Handbook of Transdisciplinary Research*, (Dordrecht: Springer Netherlands, 2008), pp. 19-39; Jacobs and Frickel, "Interdisciplinarity: A Critical Assessment", p. 47; Klein, *Interdisciplinarity: History, Theory, and Practice*, p. 196; Aboelela et al., "Defining Interdisciplinary Research"; Darbellay, "Rethinking Inter- and Transdisciplinarity", p. 164.
[28] Frodeman, *Sustainable Knowledge: A Theory of Interdisciplinarity*, p. 3; M. Kirst, J. Altenberg, and R. Balian, "In Search of Empowering Health Research for Marginalized Populations in Urban Settings: The Value of a Transdisciplinary Approach", in M. Kirst et al. (eds.), *Converging Disciplines: A Transdisciplinary Research Approach to Urban Health Problems*, (New York, NY: Springer New York, 2011), pp. 23–37; Sakao and Brambila-Macias, "Do We Share an Understanding of Transdisciplinarity?".

the pursuit of disciplinary goals…and towards an engagement with broader responsibilities to society".[29]

While these aspects are often emphasised separately, it is noted that the aim of solving real-world problems is often mentioned as the primary goal of trans-disciplinary research. In turn, the other aspects have been positioned as subordinate to this goal. Collaboration with non-academic actors has been linked with the broader aim of using trans-disciplinary research to solve real-world problems. Thus, the importance of engaging with the community or those outside of academia is considered to lie in its ability to "facilitate the action-oriented nature of [trans-disciplinary] research".[30] For others, in order for problems to be 'real-world', they have to be formulated together with non-academics.[31] Indeed, some have specifically stated the aims of trans-disciplinary research to be limited to addressing 'real-world' issues. As such, it has been questioned whether participation with non-academics is required, or whether an overarching synthesis and unity of knowledge is required in order to do this.[32]

These categories can therefore be seen to point to the important questions that are asked when considering 'Why', 'How', and 'To What Ends' disciplines should be brought together. While the definitions and ways in which authors tend to portray these categories remain abstract and loosely operationalised,[33] they nevertheless indicate several questions that arise when considering the potential ways in which law and psychology can be combined.

2.2 Relating the Interdisciplinary Literature to Psycho-Legal Research

The interdisciplinary literature proposes three main approaches to interdisciplinary research which can now be related to the specific example of psycho-legal research.

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[29] Frodeman, *Sustainable Knowledge: A Theory of Interdisciplinarity*, p. 39; Choi, and Richards, *Interdisciplinary Discourse*.
[30] Kirst, Altenberg, and Balian, "In Search of Empowering Health Research", p. 25.
[31] C. Landström, "Conclusion: Transdisciplinarity in Practice", in C. Landström (ed.), *Transdisciplinary Environmental Research: A Practical Approach*, (Cham: Springer International Publishing, 2017), pp. 101-110, p. 106.
[32] Hadorn et al., "The Emergence of Transdisciplinarity as a Form of Research", p. 29.
[33] See for instance Huutoniemi et al., "Analyzing Interdisciplinarity: Typology and Indicators", listing other authors who make the same observation on p. 80.

The inter-disciplinary approach proposed by the interdisciplinary literature suggests that law and psychology can interact either through using psychology to answer legal questions or by using law to answer psychological questions. Following how this approach to interdisciplinary research is described in the literature, this thesis will term this general approach as the **Inter-Disciplinary Proposal** for how psycho-legal research can be carried out.[34]

Through the multi-disciplinary approach, what is proposed by the interdisciplinary literature is that psycho-legal research can 'add' legal and psychological research together on a particular topic or issue, with the disciplines remaining unchanged and without any disciplinary integration. In line with how this approach is described by the interdisciplinary literature, this thesis will term this as the **Multi-Disciplinary Proposal** for how psycho-legal research can be carried out.

The trans-disciplinary approach, on the other hand, proposes that psycho-legal research can transcend or synthesise law and psychology in order to better address 'real-world' problems and to critique the perspectives assumed by law and psychology. In line with how this approach is described by the interdisciplinary literature, this thesis will term this as the **Trans-Disciplinary Proposal** for psycho-legal research.

It can be seen that the approaches thus far identified in Chapter 1 from the psycho-legal literature remain within only the Inter-Disciplinary Proposal and therefore omit engagement with the possibilities of the Multi-Disciplinary and Trans-Disciplinary Proposals. The Mainstream, Alternate, and Empirical Alternate Proposals emphasise using psychology to answer legal questions. The Psychological Perspective Proposal emphasises using the law to answer psychological questions. In each case, the one discipline is used to answer the questions of the other. They are distinguishable from the Multi-Disciplinary and Trans-Disciplinary Proposals because there is no suggestion to add psychology and

[34] As specified in note 23, the thesis will continue to follow common terminology. The term interdisciplinary continues to refer to the broader concept of any research that brings two or more disciplines together. Inter-Disciplinary (hyphenated) will refer to the proposal from the literature for a particular type of interdisciplinary research that seeks to use one discipline to answer the questions of another.

law together or to synthesise psychology and law for the purpose of critiquing the disciplines themselves or addressing ‘real-world’ problems.

The challenges that have thus far been raised towards psycho-legal literature can also be re-phrased as all addressing questions that concern research which is carried out under the Inter-Disciplinary Proposal. One of the questions is what type of integration occurs when one discipline is used to answer the questions of the other. While the Mainstream Proposal contends that law should concede to psychology, the Alternate Proposal argues that integration of psychological information into law depends on potential justifications which the law may provide against such integration. The second concern arising from the Empirical Alternate Proposal is whether there are particular types of disciplinary issues for which inter-disciplinary research is not possible. The last issue from the Psychological Perspective Proposal concerns whether the inter-disciplinary approach is possible in both directions, whether instead of focusing only on psychology’s ability to answer legal issues, law can also contribute to psychology.

The main proposals and debates in psycho-legal literature regarding the relationship between law and psychology can therefore be subsumed as questions that arise regarding the proposal that psychology and law can be brought together under the Inter-Disciplinary Proposal. What this leaves omitted from the psycho-legal literature is engagement with the more general interdisciplinary literature. This suggests on top of inter-disciplinary research the possibility that disciplines can be combined through multi-disciplinary or trans-disciplinary approaches. The main question of interest that arises from the interdisciplinary literature with regard to the relationship between law and psychology is therefore whether these two disciplines can be combined not only under the Inter-Disciplinary but also under the Multi-Disciplinary and the Trans-Disciplinary Proposals.

2.3 Outstanding Questions Regarding the Interdisciplinary Approaches

While the interdisciplinary literature has contributed to the investigation of the potential approaches for psycho-legal research by suggesting two additional approaches beyond the one usually promoted in the psycho-legal literature, it again seems to raise more questions than answers. This is in particular questions regarding how such approaches can be carried

out in practice, in other words how the Multi-Disciplinary and Trans-Disciplinary Proposals can be operationalised. More detail therefore needs to be sought regarding 'Why', 'How', and 'To What Ends' disciplines can be brought together under the different proposed categories. It also remains to be seen whether through an attempt to articulate more concretely the proposals made by the interdisciplinary literature it is found that some of the proposed goals or methods of interdisciplinary interaction are in fact unattainable in their current form and therefore need to be re-conceptualised in order to contribute to the possible ways in which law and psychology can interact.

As above, these questions extend to all the categories of interdisciplinary research, including the Inter-Disciplinary Proposal. Thus, as in the psycho-legal literature which has been identified as centred around this approach, questions have been consistently raised regarding whether there are normative and conceptual legal issues to which psychological knowledge cannot contribute, what types of justifications the law can provide for not taking account of psychological reality, and whether the law can also contribute to psychological issues.

In turn, the Multi-Disciplinary Proposal suggests that law and psychology can be 'added' together through research which provides serial views of legal and psychological research on a particular topic or issue. The interaction between the disciplines does not rely on one answering the questions of the other as the inter-disciplinary approach does. While the 'How' of this approach is relatively well-defined, what requires more elaboration is the 'Why' and 'To What Ends' of this approach. What are the benefits that are achieved by 'adding' disciplines in this manner, and what is it about disciplines which suggests that they can be 'added' together in this way?

Contrasting with the Multi-Disciplinary Proposal, the Trans-Disciplinary Proposal establishes quite clearly particular 'To What Ends' of bringing disciplines together while remaining more ambiguous regarding how its proposed goals can be achieved. It states that trans-disciplinary research can be used to address 'real-world' problems in a better way than current disciplines can and to critique existing disciplinary boundaries. It proposes that these benefits occur through research that transcends or synthesises disciplines. However, it is unclear what it means for disciplines to be 'transcended' to produce an

overarching synthesis of disciplines and how this can be achieved in practice. In comparison with the Multi-Disciplinary Proposal, a question that arises is how synthesising disciplines differs from the multi-disciplinary approach of 'adding' different disciplines together. It is also unclear how exactly the goals of addressing 'real-world' problems or critiquing existing disciplinary boundaries can be achieved through the synthesis or transcendence of disciplines.

Indeed, similarly to the Inter-Disciplinary Proposal in the psycho-legal literature, the Trans-Disciplinary Proposal has generated several critiques and challenges which reflect the questions identified above. One of the main challenges made towards the Trans-Disciplinary Proposal relates to the difficulties in synthesising or unifying different disciplines in a way that differs from the additive approach. Donald Richards, for instance, identifies the "most serious short-coming" of approaches which seek to synthesise of unify disciplinary perspectives to be that "none really specifies an adequate methodology".[35] He draws on the example of the relationship between the social sciences and the humanities to highlight the problems involved. Thus,

> In the one case the type of knowledge may be analytical-deductive and in the other subjective-evaluative. Each may bring something valuable to the discussion of the issue at hand. Each may condition and qualify our final determinations and judgements. The combination of analytical-deductive (i.e., scientific) knowledge and subjective-evaluative (i.e., humanistic) knowledge may well complement one another. It may not be the case, however, that their joint utilization significantly modifies the truth-value of their individual disciplinary insights. What results from interdisciplinary cooperation is an accumulation of different types of knowledge about a particular issue.[36]

[35] D. G. Richards, "The Meaning and Relevance of 'Synthesis' in Interdisciplinary Studies," *The Journal of General Education*, 45(2) (1996), pp. 114–128, pp. 121-122.
[36] Richards, "The Meaning and Relevance of 'Synthesis'"; M. Albert et al., "Problematizing Assumptions about Interdisciplinary Research: Implications for Health Professions Education Research", *Advances in Health Sciences Education: Theory and Practice*, 25(3) (2019), pp. 757-767.

The problem here is that since the disciplines differ in the types of knowledge they are producing, it is difficult to see how they can be combined together beyond an 'accumulation' of the different types of knowledge that they contribute. Bringing this in relation to the multi-disciplinary approach, the problem is that the 'How' of the Trans-Disciplinary Proposal may be impossible to achieve. Therefore, beyond the Inter-Disciplinary Proposal, where disciplinary knowledge is used to answer the questions of another discipline, it may only be the Multi-Disciplinary Proposal that is possible whereby different disciplines are brought together in an additive accumulation.

Another point that is raised by challengers to the Trans-Disciplinary Proposal is to emphasise the features of disciplinary knowledge and ask what can be achieved by research which claims to produce knowledge in a way that does not fit the disciplinary structure. Within Joe Moran's critique of the notion that disciplines can be transcended or synthesised, he highlights the important role of disciplines in providing structure and order to knowledge.[37] Similarly, Jerry Jacobs justifies the existence of disciplines as a requirement to organise an academic division of labour.[38] The question that is raised by these critiques is what can be achieved if disciplinary boundaries, which provide order to knowledge and the ability to divide academic labour, are transcended. In terms of the goals proposed by trans-disciplinary literature, the question is how transcending disciplines can better answer real-world problems if it results in research which lacks the structure that disciplinary research provides, and what particular benefit to addressing 'real-world' problems is achieved by synthesising disciplinary boundaries. These questions point towards the requirement to consider whether the assumption made in the trans-disciplinary literature that transcending or synthesising disciplinary boundaries is needed to achieve the goals of addressing 'real-world' problems and critiquing existing disciplines is actually correct.

2.4 Summary and Conclusion

[37] Moran, *Interdisciplinarity*, p. 3.
[38] J. A. Jacobs, "The Need for Disciplines in the Modern Research University," in R. Frodeman (ed.), *The Oxford Handbook of Interdisciplinarity*, 2nd ed., (Oxford University Press, 2017), pp. 35-38.

Chapter 1 drew on psycho-legal literature to highlight the debates and questions concerning the relationship between law and psychology. This chapter has drawn on the broader literature on interdisciplinary research and through this has identified these debates as questions that arise for research which is being carried out under the Inter-Disciplinary Proposal. As such, it has been emphasised that the psycho-legal literature covers only one aspect of what have been suggested to be the potentials of interdisciplinary research. These additional potentials are that law and psychology can be combined in an additive way, the Multi-Disciplinary Proposal, or in a synthesising and transcending manner in order to address 'real-world' problems or critique existing disciplinary boundaries, the Trans-Disciplinary Proposal.

It has, however, been highlighted that these proposals for interdisciplinary research remain abstract and, in particular for the trans-disciplinary approach, subject to challenges. While they can be taken as starting points for an investigation into the potential methodology of psycho-legal research, more needs to be done to identify how these proposed approaches can be carried out in practice. The question that arises for the Multi-Disciplinary Proposal is what the particular benefits that occur from adding disciplines together in an accumulative fashion are. Regarding the Trans-Disciplinary Proposal, the questions are how disciplines can be transcended or synthesised in a way that differs from the multi-disciplinary additive method, and how, or indeed whether, transcending or synthesising disciplinary boundaries achieves the goals of using research to engage in 'real-world' issues or to critique existing disciplines.

A review of the psycho-legal and interdisciplinary literature has thus far highlighted the broad range of potentials that are proposed to exist for interdisciplinary research which combines law and psychology. Since the discussion has been based on proposals in the literature for interdisciplinary research, it has been noted that one of the main issues concerns how these proposals can be translated into practice. This thesis will therefore turn next to an analysis of current examples of psycho-legal research in order to consider how psycho-legal research in practice answers the questions of 'Why', 'How', and 'To What Extent' psychology and law can integrate. Of particular interest is whether these examples demonstrate different approaches to psycho-legal research to the proposals that have been identified from the literature.

The next two chapters will utilise examples of psycho-legal research which can at the same time test the distinction that the Empirical Alternate Proposal makes. Under this proposal, psycho-legal sceptics posit that a difference exists between using psychology to provide probative evidence of legal criteria, an approach that is accepted, versus using psychology to contribute to normative and conceptual legal questions, an approach that psycho-legal sceptics are more cautious of. The popular psycho-legal topic of eyewitnesses will be taken in Chapter 3 as an example of studies which focus on psycho-legal sceptic's accepted category of using psychology to provide evidence of legal criteria. Criminal retributive practices will be taken in Chapter 4 as an example of research that uses psychology to answer normative legal issues, a category which faces more challenge from psycho-legal sceptics.

Chapter Three – Psycho-Legal Research on Eyewitnesses

This chapter will analyse the psycho-legal research on eyewitnesses, as an example of a popular area of psycho-legal research, and a topic which is accepted by psycho-legal sceptics in the Empirical Alternate Proposal as one which is suitable for psycho-legal research. The topic of eyewitnesses will be used to evaluate the methodological approach that is being taken by psycho-legal scholars in this area, and whether it supports or contradicts any of the proposals for psycho-legal research which have been identified in the literature discussed in the previous chapters.

3.1 Introduction to Psycho-Legal Research on Eyewitnesses

While the first chapter highlighted the wide range of topics being covered by psycho-legal research, there are several topics that stand out as more popular. Eyewitnesses is one of these. A review in 1989 on the general development of psychology and law already described the research on eyewitnesses as a substantial accumulation, comparing this with lesser studied topics such as judicial decision making.[1] Indeed, the focus on eyewitness research once led to the then editor of *Law and Human Behavior*, Michael Saks, issuing a warning in 1986 that "The Law does not live by eyewitness testimony alone".[2] In this editorial, Saks pointed out that the majority of the articles he had seen were on the topic of eyewitnesses. He encouraged researchers to consider the behavioural assumptions that are made in other parts of the legal system too, suggesting one example of tort law and the assumptions made about foreseeability of risk, emphasising that eyewitness matters actually take up quite a small part of the legal system as a whole.

Recent psycho-legal works do cover a broader range, encompassing tort law, family law, and contract law to name a few. However, the relative popularity of eyewitness research seems to have continued. An analysis of the publications of three leading psycho-legal journals found that between the years of 2010-16, eyewitness was among the top five most

[1] J. H. Davis, "Psychology and Law: The Last 15 Years," *Journal of Applied Social Psychology*, 19(3) (1989), pp. 199–230.
[2] M. J. Saks, "The Law Does Not Live by Eyewitness Testimony Alone," *Law and Human Behavior,* 10(4) (1986), pp. 279–280.

common areas of psycho-legal research.[3] Also commenting on the interest in eyewitnesses, a psychologist expert in a New Jersey Supreme Court case concerning eyewitness identification noted that there were only four published psychology articles from the 1970s containing 'eyewitness' and 'identity' in their abstracts, compared with more than 2000 studies published in the past thirty years.[4]

Further analyses indicate that research on eyewitnesses is among the most cited. In 2012, the incoming editor of the journal *Psychology, Crime & Law* commented that among the top five cited articles during the journal's lifespan was a meta-analysis regarding the effects of the cognitive interview for witnesses of crime.[5] Looking at other journals such as *Law and Human Behavior*, a content analysis of the articles published between 1977 and 2016 finds that the six most cited articles in a court case are related to eyewitness memory and police-induced confessions.[6]

There is also evidence that psycho-legal research plays a considerable role in reform to the legal requirements concerning eyewitness. Researchers point to the example of states in America which have passed legislation or developed guidelines, based on data and input from eyewitness researchers, to change the eyewitness procedures used by law enforcement.[7] For instance, in line with recommendations from psycho-legal research, the

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[3] K. Reed et al., "An Empirical Analysis of Law-Psychology Journals: Who's Publishing and on What?," in M. K. Miller and B. H. Bornstein (eds.), *Advances in Psychology and Law: Volume 3*, (Cham: Springer International Publishing, 2018), pp. 285–299.
[4] *State* v. *Henderson*, 27 A.3d 872, 892 [N.J. 2011].
[5] T. A. Gannon, "A Message from the Incoming Editor: Long Live Psychology, Crime & Law," *Psychology, Crime & Law*, 18(3) (2012), p. 229.
[6] L. E. Wylie et al., "Four Decades of the Journal Law and Human Behavior: A Content Analysis," *Scientometrics*, 115(2) (2018), pp. 655–693. For examples of recent US cases citing research on eyewitness identification, see *State* v. *Henderson* [2011] and *State* v. *Lawson*, 291 P.3d 673 [Or. 2012].
[7] For reviews of the impact eyewitness research has had on the development of police guidelines see S. E. Clark, "Costs and Benefits of Eyewitness Identification Reform: Psychological Science and Public Policy," *Perspectives on Psychological Science*, 7(3) (2012), pp. 238–259; G. L. Wells, A. Memon, and S. D. Penrod, "Eyewitness Evidence: Improving Its Probative Value," *Psychological Science in the Public Interest*, 7(2) (2006), pp. 45–75; M. B. Moreland and S. E. Clark, "Eyewitness Identification: Research, Reform, and Reversal," *Journal of Applied Research in Memory and Cognition*, 5(3) (2016), pp. 277–283; National Research Council, *Identifying the culprit: Assessing identification evidence*, (Washington D.C.: National Academies Press, 2014), retrieved from: http://www.nap.edu/catalog/18891/identifying-the-culprit-assessing-eyewitness-identification.

states of New Jersey,[8] Connecticut, and North Carolina now require by law that police departments present eyewitness identification line-ups sequentially, rather than simultaneously. Other states, such as California, New York, and Rhode Island have developed eyewitness procedure guidelines for police and investigators based on psycho-legal research. State Supreme Courts have also started to mandate the use of science-based juror instructions in trials involving eyewitness identifications.[9]

Eyewitness identification is not the only aspect of eyewitnesses that has been of interest to psycho-legal scholars. Another example is the development of the cognitive interview, designed by psychologists R. Edward Geiselman and Ronald Fisher, which seeks to improve police interview techniques by drawing on findings by social and cognitive psychology.[10] The cognitive interview encourages the police to use interview techniques that have been proven in psychology to improve the ability of individuals to remember details of previous events accurately. One such technique within the cognitive interview is 'context reinstatement'. The interviewer using this technique should encourage the witness to create a mental picture of their personal physical and mental context of the event, for instance how they felt or where they were standing in relation to the crime. This helps to elicit more details from the witness' memory of the event. The cognitive interview has now been widely adopted within the criminal justice system in the UK,[11] and some go as far as

[8] New Jersey has been described as at the 'forefront' of the movement to integrate scientific findings into eyewitness procedures. In 2001, the then Attorney General issued a set of guidelines for 'best practices', which included selecting fillers based on the witness' prior description of the perpetrator, ensuring no information concerning previous arrests of the suspect are seen by the witness, ensuring that the suspect does not unduly stand out, using a different administrator of the lineup to the primary investigator of the case, instructions for the witness that the perpetrator may or may not be present, and taking a record of the witness' level of certainty. See *State v. Henderson* [2011], 912-914.

[9] J. Epstein, "Irreparable Misidentifications and Reliability: Reassessing the Threshold for Admissibility of Eyewitness Identification," *Villanova Law Review,* 58(1) (2013), pp. 69-102, p. 94.

[10] See R. P. Fisher, and R. E. Geiselman, *Memory-enhancing techniques in investigative interviewing: The cognitive interview*, (Springfield, IL: C.C. Thomas, 1992) which describes the basic principles of the cognitive interview.

[11] C. Hollin, P. van Koppen, and A. Lind, "Psychology, Crime, & Law; Editorial Introduction to the First Edition," *Psychology, Crime & Law,* 1(1) (1994).

to say that the cognitive interview "is perhaps one of the most successful developments in psychology and law research in the last 25 years".[12]

Psycho-legal research into eyewitnesses has therefore been described as progressing in three stages.[13] First, an emphasis that psychological research on memory recall is applicable to the law. Second, psychology highlights that current eyewitness procedures do not allow for the accurate memory retrieval of eyewitnesses to crime and this therefore indicates a shortcoming in the legal system. Generally psycho-legal research here distinguishes between two categories of variables that have been found in experimental studies to influence the accuracy of memory retrieval. System variables are those that actors in the criminal system can 'control', and include factors involved in the eyewitness procedures that investigators and police are responsible for undertaking. Examples of these are sequential versus simultaneous identification procedures, the type of instructions given to witnesses prior to identification procedures, and the similarity in appearance between the suspect and the foils chosen who make up the rest of the line-up or photographic array. Estimator variables are those that actors in the criminal system cannot control, and generally include factors which were present at the actual time of the eyewitness' observation. Examples of these are how long the witness saw the perpetrator for, whether the witness is of a different race to the perpetrator/suspect, the stress levels of the witness when they witnessed the crime, and whether the perpetrator was holding a weapon.[14] Another prominent area of eyewitness research considers whether the eyewitness' self-reported confidence in their identification or memory of events is a reliable predictor of its accuracy.[15] Thirdly, psychology is used to provide solutions to help the legal system achieve more accurate memory retrieval or better evaluate the reliability of eyewitness evidence. Changing the legal rules for eyewitness identification procedures is one example, as is changing the legal rules regarding admissibility of eyewitness evidence.

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[12] A. Memon, C. A. Meissner, and J. Fraser, "The Cognitive Interview: A Meta-Analytic Review and Study Space Analysis of the Past 25 Years," *Psychology, Public Policy, and Law,* 16(4) (2010), pp. 340–372, p. 340.

[13] Hollin et al., "Psychology, Crime, & Law".

[14] See *Eyewitness Identification: Research, Reform, and Reversal*, n.7 for a summary of the recent psycho-legal research on eyewitnesses.

[15] J. T. Wixted and G. L. Wells, "The Relationship Between Eyewitness Confidence and Identification Accuracy: A New Synthesis," *Psychological Science in the Public Interest,* 18(1) (2017), pp. 10–65; J. T. Wixted et al., "Initial Eyewitness Confidence Reliably Predicts Eyewitness Identification Accuracy," *The American Psychologist,* 70(6) (2015), pp. 515–526.

Calls for eyewitness reform based on psychological findings can thus be seen as an example of the type of psycho-legal research which general psycho-legal sceptics accept as a possible way in which law and psychology can be brought together under the Empirical Alternate Proposal. It is an example of what Morse identifies as an 'internal' challenge to the law. Psychology is responding to a particular part of legal practice (to do with eyewitness evidence), to the particular behavioural assumption within that legal practice (that eyewitnesses are reliable), and hoping to help implement current eyewitness policy more effectively by using psychology to contribute to a legal issue. Contrary to external challenges, psychology is not disputing the aims or goals of eyewitness policy (both law and psychology share an aim of achieving reliable eyewitness evidence) and is not arguing that legal institutions or practices as a whole are unjustified. More generally, it serves as an example of using psychology to provide probative evidence of legal criteria since psychology is testing for the accuracy of eyewitness testimony, thus falling under the category which Pardo and Patterson as well as other general psycho-legal sceptics accept as a potential role that psychology plays in contributing to empirical legal issues.

3.2 Analysing the Psycho-Legal Claim for Eyewitness Reform

This chapter will analyse the example of eyewitness research in order to test how in practice psychology and law have been combined in this category, and what answers are suggested for the questions regarding psycho-legal research raised in the previous chapters. It will be shown that there is an overall emphasis within psycho-legal research on eyewitnesses to focus on using psychology to make a claim for legal reform. The following sections of the chapter will identify and evaluate four factors that are relied on by eyewitness research to make this claim: Firstly, that the inaccurate assumption leads to an injustice, secondly that reform measures based on correcting the assumption of accurate memory retrieval are required because they are 'no-cost' and because, thirdly, the traditional safeguards are inadequate, and fourthly, that there is a particular way to define the problem that arises from the inaccurate assumption made regarding eyewitness identification and memory.

3.2.1 Reliance on the Inaccurate Assumption leading to a Matter of Injustice

The common starting point for psycho-legal studies in the area of eyewitnesses is to place the research in the context of a problem for the legal system. What is interesting is that the problem emphasised is not that an inaccurate behavioural assumption per se has been made by the law. The Mainstream Proposal and the three-stage description that has currently been offered implies that it is due to psychology's scientific expertise revealing inaccurate behavioural assumptions that a legal shortcoming or problem can be revealed and an argument for change to legal requirements therefore made. Instead, however, what is emphasised by many psycho-legal studies in this area is the problem of convicting a defendant who did not commit the crime, based on mistaken eyewitness identification.[16] This is more commonly referred to as an example of wrongful conviction, and this thesis will also use the term 'wrongful conviction' to mean the conviction of a defendant who is factually innocent. The justification for using eyewitness research to promote legal reform therefore seems to lie for these studies not only in the fact that the legal system makes incorrect assumptions about the accuracies of eyewitnesses, but that these assumptions lead to unjust consequences.

With the advancement of forensic technology, recent DNA analysis of previous cases shows that these consequences are real. It is the way that this DNA evidence has "dramatically" established the unreliability of identifications that is seen as giving "energy" to the psycho-legal movement to reform police and legal procedures that deal with eyewitness matters.[17] To support the link between mistaken identifications and wrongful convictions, studies have gone on to show that eyewitness testimony often played a pivotal role in the conviction of the original innocent suspects. For instance, it has been

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[16] This emphasis is found in studies looking at psycho-legal research on eyewitnesses generally; Clark, "Costs and Benefits of Eyewitness Identification Reform"; R. A. Wise et al., "An Examination of the Causes and Solutions to Eyewitness Error," *Frontiers in Psychiatry,* 5 (2014), p. 102; as well as studies investigating line-up procedures; C. A. Meissner et al., "Eyewitness Decisions in Simultaneous and Sequential Lineups: A Dual-Process Signal Detection Theory Analysis," *Memory & Cognition,* 33(5) (2005), pp. 783–792; studies investigating eyewitness research and jurors; K. A. Martire and R. I. Kemp, "The Impact of Eyewitness Expert Evidence and Judicial Instruction on Juror Ability to Evaluate Eyewitness Testimony," *Law and Human Behavior,* 33(3) (2009), pp. 225–236; and studies which focus on the relationship between eyewitness confidence and reliability; Wixted et al., "Initial Eyewitness Confidence"; Wixted, and Wells, "The Relationship Between Eyewitness Confidence".

[17] Moreland and Clark, "Eyewitness Identification".

found that more than 75% of the first 200 wrongful convictions in the United States which were overturned by the Innocence Project involved cases where the main evidence against the accused was eyewitness identification.[18] This statistic aligns with the findings from a wider study of 2000 exonerations in the United States between the years of 1989 and 2012, where it was demonstrated that 76% of these cases involved mistaken eyewitness identifications.[19] These studies are often referenced in the introductions of psycho-legal studies on eyewitnesses, demonstrating the emphasis that psycho-legal scholars in this area place on the fact that the unjust consequence of unreliable eyewitness evidence does occur in the real world on a frequent basis.[20]

The consequence itself, of innocent suspects being convicted for a crime they did not commit, is easily identifiable as one of the prototypical examples of a miscarriage of justice and has been highly publicised as such. It has been pointed out that almost 1000 print media articles, as well as 131 news and television programs, addressed the issue of DNA exonerations between the years of 1996 and 2012, thus keeping the issue well within the public eye.[21]

The gravity and reality of the consequences, as well as the public attention that exists around such issues, also appears as perhaps the main reason that recognition of the problem exists for actors involved in the criminal system too. A historical review of eyewitness identification and the English courts by Graham Davies and Laurence Griffiths demonstrates how high-profile cases of wrongful convictions based on mistaken

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[18] G. Davies, and L. Griffiths, "Eyewitness Identification and the English Courts: A Century of Trial and Error," *Psychiatry, Psychology and Law,* 15(3) (2008), pp. 435–449.
[19] S. R. Gross, and M. Shaffer, "Exonerations in the United States, 1989–2012: Report by the National Registry of Exonerations," (2012, June), retrieved from http://www.law.umich.edu/special/exoneration/Documents/exonerations_us_1989_2012_full_report.pdf, p. 51).
[20] See for instance the introductions of A. D. Yarmey, "Expert Testimony: Does Eyewitness Memory Research Have Probative Value for the Courts?," *Canadian Psychology/Psychologie Canadienne,* 42(2) (2001), pp. 92–100; Meissner et al., "Eyewitness Decisions"; J. M. Fawcett et al., "Of Guns and Geese: A Meta-Analytic Review of the 'Weapon Focus' Literature," *Psychology, Crime & Law,* 19(1) (2013), pp. 35–66, stating that stating that eyewitness testimony is one of the most important sources of evidence that leads to a conviction; G. L. Wells and E. A. Olson, "Eyewitness Identification: Information Gain from Incriminating and Exonerating Behaviors," *Journal of Experimental Psychology: Applied,* 8(3) (2002), pp. 155–167, stating that mistaken identifications are responsible for more cases of wrongful conviction by juries than all other causes combined.
[21] Epstein, "Irreparable Misidentifications and Reliability".

identifications often provided the impetus for legal actors and others involved in the criminal legal system to start looking into eyewitness procedures and potential reform.[22] They point to two instances in the early 20th Century where Courts of Enquiry were set up to consider eyewitness issues, and a third instance in 1974 where the then Home Secretary appointed Lord Devlin, High Court Judge, to review the law and procedures regarding eyewitnesses. All three of these investigations were a response to the discovery of misidentification cases, and all three reports highlighted the unreliability of eyewitness testimony and identification, with only the latest making particular reference to the recent relevant psychological findings. That actors involved in the criminal justice system recognise the problem of inaccurate eyewitness testimony is also demonstrated by the fact that the development of the cognitive interview was a response to requests from police and legal professionals who wanted to improve witness interviews.[23]

Turning to the experience of other countries, a similar pattern emerges. After a reinvestigation into the Canadian case of Thomas Sophonow, wrongly convicted of murder, it was found that another suspect was responsible. Again, Sophonow's case included eyewitness identifications, and again due to the later discovery and proof that this was a case of mistaken identity, an inquiry, led by a former Supreme Court Justice, was set up to look into the police investigations, including the use of eyewitnesses.[24] Whilst recent cases particularly in the United States are increasingly citing findings from psycho-legal studies, it has been noted that "judicial recognition of the problem is over a century old", with juror instructions on the unreliability of eyewitness identifications found in cases heard in the late 1800s.[25]

What can also be highlighted is that the U.S. Supreme Court was hearing cases on eyewitnesses and considering the impact of unreliable eyewitness identifications on the rights of defendants just before or at the most at the start of the 1970s-onwards upsurge of psycho-legal interest in this area. Thus in 1967, the U.S. Supreme Court in *United States* v

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[22] Davies, and Griffiths, "Eyewitness Identification and the English Courts".
[23] Memon, Meissner, and Fraser, "The Cognitive Interview".
[24] K. C. Bruer et al., "Judicial Discussion of Eyewitness Identification Evidence," *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement,* 49(4) (2017), pp. 209–220.
[25] Epstein, "Irreparable Misidentifications and Reliability," p. 87.

Wade identified the problems that arise from inaccurate eyewitness testimony, proclaiming that "The vagaries of eyewitness identification are well-known; the annals of criminal law are rife with instances of mistaken identification",[26] and holding for these reasons that a criminal defendant has a constitutional right to counsel at a line-up identification procedure. Another eyewitness case in the same year confirmed that eyewitness identifications warrant special protections under the constitution to protect the due process rights of defendants.[27] In 1972, the same Court held that the reliability of eyewitness identification was deemed a relevant factor in determining its admissibility,[28] and the importance of reliable eyewitness identification was again emphasised by the Court in a case five years later.[29] Similarly, in the UK, the leading case on eyewitness evidence was heard in 1977, and again considered issues of the reliability of such evidence.[30] Even after the accumulation of psycho-legal research highlighting the potential weaknesses in eyewitness testimony, the legal cases citing such research also place emphasis on DNA exonerations and review of actual police line-ups that prove that the consequences of mistaken identifications are indeed a reality.[31] DNA exonerations and archival studies that look into actual real-life cases play another related role in court cases by acting as evidence to counteract critics who argue that psycho-legal studies which demonstrate the weaknesses of eyewitness evidence lack external validity.[32]

These examples demonstrate that the criminal justice system has been aware of eyewitness issues, and that real-life, identifiable miscarriages of justice usually serve as their impetus to start considering changing legal rules or procedures. However, as will be demonstrated below, while psychology and the law may agree that mistaken eyewitness testimony is a relevant factor leading to wrongful conviction and therefore potentially to an instance of injustice, there remain questions regarding how this instance of injustice can and should be understood and addressed within the legal system. It is here that an analysis of the arguments made in this area can expose the additional factors which are relied upon by

[26] *United States* v. *Wade*, 338 U.S. 218, 228 [1967].
[27] *Stovall* v. *Denno*, 388 U.S. 293 [1967].
[28] *Neil* v. *Biggers*, 409 U.S. 188 [1972].
[29] *Manson* v. *Brathwaite*, 432 U.S. 98 [1977].
[30] *Regina* v. *Turnbull* [1976] 3 WLR 445.
[31] *State* v. *Henderson* [2011], 878.
[32] *State* v. *Henderson* [2011], 893-4.

psycho-legal scholars which sometimes appear to conflict with the perspective that is taken by the law.

3.2.2 Reliance on 'no-cost' Solutions

Psycho-legal research in the area of eyewitnesses, as well as highlighting the severe consequences that can occur as a result of false identifications, has also emphasised that removing or correcting factors which are found to increase the probability of false identifications will have no significant reduction in the probability of correct identifications occurring. This view has been described by Clark as the 'no-cost' view.[33]

One example of this is the research surrounding unbiased instructions in identification procedures. It has been stated by psycho-legal scholars that providing 'unbiased' instructions to witnesses can help to decrease false identifications whilst having no or minimal effect on correct identifications of the perpetrator.[34] Unbiased instructions are those that tell eyewitnesses that the perpetrator may or may not be present in the identification procedure. Biased instructions are those that state or imply that the perpetrator is present, and the witness should be able to identify them.

Following such research, the recommendation of unbiased instructions has been endorsed by the New Jersey Supreme Court and by the state's Attorney General.[35] The UK Code of Practice for the identification of persons by Police Officers also includes such recommendations, stating that for both video identification and identification parades, "Immediately before the images are shown, the eye-witness shall be told that the person

[33] Clark, "Costs and Benefits of Eyewitness Identification Reform." In this article, Clark also points to research that focuses on false identifications without mentioning the impact on correct identifications e.g., L. Hope, "Eyewitness testimony," in G. J. Towl, and D. A. Crighton (eds.), *Forensic Psychology*, (Chichester, UK: Springer International Publishing, 2010).
[34] N. M. Steblay, "Social Influence in Eyewitness Recall: A Meta-Analytic Review of Lineup Instruction Effects," *Law and Human Behavior,* 21(3) (1997), pp. 283–297; S. M. Fulero, "System and Estimator Variables in Eyewitness Identification: A Review," in D. A. Krauss, and J. D. Lieberman (eds.), *Psychological Expertise in Court: Psychology in the Courtroom*, vol. II, (Burlington, VT: Ashgate, 2009), pp. 80-101.
[35] See *State* v. *Henderson*, [2011], 912-14.

they saw on a specified earlier occasion may, or may not, appear in the images they are shown and that if they cannot make an identification, they should say so".[36]

The focus that psycho-legal scholars place on emphasising the 'no-cost' view highlights importantly that they are aware that the problem of inaccurate eyewitness testimony is not only wrongful convictions based on false identifications, but also how to balance this with the need to ensure correct identifications so that the right criminals can be brought to justice. This provides evidence that in real-life research, psycho-legal scholars tend towards the Alternate Proposal which positions that law does not have to concede to psychology but rather that the law may in fact provide justifications against this. Here, the justification against correcting inaccurate eyewitness identifications would be that this could then decrease correct identifications from occurring. By stressing that false identifications can be reduced with little impact on correct identifications, the 'no-cost' view conveniently side-steps this debate concerning the tension between defendants' rights to "due process and crime control models of criminal justice".[37] This leads to Clark describing the 'no-cost' view as the main driver in the eyewitness reform movement.

However, Clark argues that the 'no-cost' view is, in fact, incorrect, and that the data proves a general trade-off pattern whereby false identifications are reduced at the expense of correct identifications.[38] Continuing with the example of unbiased instructions, studies have now re-examined previous findings and have concluded that correct and false identifications both decrease when unbiased instructions are used.[39] The same pattern is found for other main psycho-legal recommendations, including sequential versus simultaneous line-ups.[40]

Such evidence suggests that before reform based on psychological findings is implemented, important questions do need to be engaged with. Clark identifies the relevant questions here as how to balance the costs associated with a false identification that may

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[36] Police and Criminal Evidence Act 1984, Section D, Annex A Section 11, and Annex B Section 16.
[37] Clark, "Costs and Benefits of Eyewitness Identification Reform," at p. 239.
[38] Supra.
[39] S. E. Clark, "A Re-Examination of the Effects of Biased Lineup Instructions in Eyewitness Identification," *Law and Human Behavior,* 29(4) (2005), pp. 395–424.
[40] Clark, "Costs and Benefits of Eyewitness Identification Reform".

lead to a false conviction with the costs associated with a false nonidentification that can lead to a criminal escaping justice and committing additional crimes. These are described as questions that have "occupied philosophers and legal scholars for centuries"[41] and they go unanswered by psychological evidence of what increases or decreases the reliability of eyewitness evidence.

Some of the reasons that are identified for why the 'no-cost' view gained momentum are that a theory was developed that could account for the data lending credibility to the 'no-cost' view, that a number of data-analytic confusions were present, and that a possible publication bias may have kept disconfirming findings out of journals.[42] Overall, however, the persistence of this view can also be seen to reflect a potential pressure placed on psycho-legal scholars in this area to bring law and psychology together in order to use psychology to promote legal reform. The existence of this pressure may be likely since, as identified in Chapter 1, the mainstream literature on psycho-legal research does focus on legal reform as the end goal. Interestingly, the suggestion for how to move forward, given that the 'no-cost' view may be incorrect, is to continue engaging with the Alternate Proposal rather than the Mainstream Proposal. Those that have challenged the 'no-cost' view have simply encouraged suggestions for reform from psycho-legal research to include consideration of relevant legal factors beyond correct and false identification rates.[43] In other words, re-consideration of the potential justifications which the law may have for not conceding to psychological reality regarding the accuracy of eyewitness identification.

As will be discussed below, regardless of whether psychological solutions are 'no-cost' or not, the debate of due process versus crime control models of justice and how to understand and address the issue of wrongful convictions based on inaccurate eyewitness identification nevertheless resurfaces when issues such as how to handle eyewitness evidence in courts of law are considered.

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[41] Supra, at p. 248.
[42] S. E. Clark, M. B. Moreland, and S. D. Gronlund, "Evolution of the Empirical and Theoretical Foundations of Eyewitness Identification Reform," *Psychonomic Bulletin & Review,* 21(2) (2014), pp. 251–267.
[43] Supra, p. 262.

3.2.3 Reliance on Inadequacy of Traditional Legal Safeguards

As well as emphasising 'no-cost' solutions, another important role that psycho-legal research has played has been to challenge that traditional safeguards in the legal system are inadequate to counteract the dangers of unreliable eyewitness evidence, and therefore claim that legal reform is required. Again, this demonstrates that real-life research acknowledges that the Alternate Proposal, which allows justifications to be made against legal reform, is more appropriate than the Mainstream Proposal for psycho-legal research. Here, the justification acknowledged by the psycho-legal research is whether traditional safeguards exist such that the law does not need to be changed even if eyewitness testimony is proven to be inaccurate. However, similar to Clark's discussion of the 'no-cost' view, there are claims that it may be only weak evidence which supports the argument that these safeguards are indeed inadequate.

One traditional safeguard that has been explored is the role that is given to the jury as fact-finder and to assess the credibility of eyewitness evidence. Numerous psycho-legal studies have focused on the question of how jurors evaluate eyewitness testimony, typically testing whether jurors are aware of the factors that have recently been found by psychology to increase the likelihood of a mistaken identification. The general finding from experiments is that people rely on common-sense intuition which can often go against the psycho-legal findings on eyewitness memory and accuracy.[44] For example, experiments indicate that participants tend to accept identifications as accurate as long as the eyewitness is confident and consistent, even if the identification is circumstantial and despite evidence that eyewitness confidence can be greatly influenced by system and estimator variables. Studies also show that participants do not take account of relevant factors which indicate that an identification is accurate.[45]

Psycho-legal research has also considered whether the traditional safeguards of cross-examination and juror instructions can help jurors to identify mistaken eyewitness

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[44] T. R. Benton et al., "Eyewitness Memory Is Still Not Common Sense: Comparing Jurors, Judges and Law Enforcement to Eyewitness Experts," *Applied Cognitive Psychology*, 20(1) (2006), p. 115–129.

[45] A summary of such cases can be found in Wells, Memon, and Penrod, "Eyewitness Evidence"; Wise et al., "An Examination of the Causes".

identifications. Again, the general finding from experiments is that they cannot,[46] or that they cause jurors to become overall more suspicious of all eyewitness identification evidence.[47]

However, there are several scholars who disagree with the consensus view that traditional safeguards are inadequate, arguing that this view may be based on at best inconclusive results.[48] One major criticism is the lack of external validity that makes it difficult to make generalisations from the above studies. Here what is pointed to is the fact that experimental studies in eyewitness research tend to use mock jurors and often video-taped trials which do not and perhaps cannot replicate the real-life situation, where jurors are responsible for making a decision that will have real consequences for someone and where they are able to deliberate together in jury discussions. Whilst the real-life data on DNA exonerations may prove that jurors are indeed not always able to identify and discount unreliable evidence, it is difficult to generalise from experiments that may lack external validity what the cause and solution for this could be.

From those that accept the conclusion that traditional legal methods are unable to provide adequate safeguards against wrongful convictions, there still exist differing suggestions and opinions as to what the appropriate solution should be.

For some, the solution should be to use eyewitness experts in certain situations instead of juror instructions.[49] Psycho-legal studies can shed light on whether this will actually increase juror understanding of relevant factors when assessing eyewitness evidence, with some studies suggesting that expert testimony may not have a significant impact on juror

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[46] M. R. Leippe, "The Case for Expert Testimony about Eyewitness Memory," *Psychology, Public Policy, and Law,* 1(4) (1995), pp. 909–959; F. Leverick, "Jury Instructions on Eyewitness Identification Evidence: A Re-Evaluation," *Creighton Law Review,* 49(3) (2016), pp. 555-588; Wise et al., "An Examination of the Causes".
[47] Martire, and Kemp, "The Impact of Eyewitness Expert Evidence"; National Research Council, *Identifying the culprit: Assessing identification evidence*, Ch 3.
[48] C. Sheehan, "Making the Jurors the 'Experts': The Case for Eyewitness Identification Jury Instructions," *Boston College Law Review,* 52(2) (2011), pp. 651-694; L. Dufraimont, "Regulating Unreliable Evidence: Can Evidence Rules Guide Juries and Prevent Wrongful Convictions?," *Queen's Law Journal,* 33(2) (2008), pp. 261-326.
[49] Leippe, "The Case for Expert Testimony".

judgments.[50] However, even if psycho-legal studies prove that expert witnesses are more effective than juror instructions in explaining eyewitness issues to the jury, other factors, both psychological and non-psychological, will need to be taken account of. These can include the additional cost of expert witnesses, the risk of invading on the jury's role of testing witness credibility, and the additional time that will be added to criminal trials if using expert witnesses rather than jury instructions.[51] From the psychological side, also relevant will be the psycho-legal research which looks into ways in which to make juror instructions more effective, for instance considering the timing of the instructions or whether visual aids improve juror understanding of the relevant factors.[52] Such psycho-legal research can be used to suggest that juror instructions can be as effective as expert witnesses, if given at the right time and using clear means of communication, and should therefore be preferred in consideration of the extra-psychological factors listed.

For others, the solution is to ensure proper eyewitness interviews and identifications to prevent eyewitness errors in the first place.[53] While this can involve reform solutions that seek to address system variables, as discussed above to the extent that this will also impact on correct identifications, the balance between due process versus crime control models will become relevant. Another suggestion based on psycho-legal studies which indicate the fallibility of eyewitness evidence and inadequacy of traditional safeguards is that police should no longer use identifications as concluding and admissible evidence, only as potential leads to be supported with additional evidence. Again, however, this brings into relevance the debate on due process versus crime control models, which as above concerns normative questions that psychological evidence on the accuracy of eyewitnesses may be ill-placed to answer.

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[50] J. L. Devenport, and B. L. Cutler, "Impact of Defense-Only and Opposing Eyewitness Experts on Juror Judgments," *Law and Human Behavior*, 28(5) (2004), pp. 569–576; J. L. Devenport et al., "How Effective Are the Cross-Examination and Expert Testimony Safeguards? Jurors' Perceptions of the Suggestiveness and Fairness of Biased Lineup Procedures," *Journal of Applied Psychology*, 87(6) (2002), pp. 1042–1054.

[51] Leverick, "Jury Instructions on Eyewitness," p. 576; see also the court judgment in *State* v. *Henderson* [2011] which also addresses this issues, at 925.

[52] See National Research Council, *Identifying the culprit*, Ch 3 for a summary of the research in this area.

[53] Wise et al., "An Examination of the Causes".

3.2.4 Reliance on Defining the Problem as Wrongful Convictions: examples from case law

Indeed, this same issue, of whether to dismiss potentially unreliable eyewitness evidence unless it is supported by additional evidence, has been discussed by courts. An analysis of the case law from the UK and US will show that they too take different approaches to the problem of unreliable eyewitness evidence, providing different answers to when and how such evidence should be admissible in court. For this reason, the cases from these two jurisdictions will be chosen as examples which can highlight that the same psychological evidence regarding unreliable eyewitness testimony nonetheless leads to different legal solutions being taken by the US and UK. These different approaches to how courts have incorporated psychological findings will reveal that while psycho-legal studies tend to define the problem as wrongful conviction based on eyewitness evidence, there are other ways that the issue can be and is defined by the law.

Many legal cases which dealt with eyewitness matters before the rise of psycho-legal interest in the area do contain arguably outdated notions of the factors that can lead to reliable versus unreliable eyewitness evidence. For instance, in *R* v. *Turnbull*, the factors that were taken to indicate good quality eyewitness evidence are when there has been a long period of observation and when the identification is by someone who knows the suspect.[54] The case identified factors that signal a poor identification to include if there was only a fleeting glance or difficult situations of observation for instance dark lighting. The specific cases at issue in the *Turnbull* judgment reveal that if the eyewitness did not know the perpetrator before the crime, if the crime lasted only a few moments, if the suspect's conduct is consistent with the honesty of denial, if another witness who also had a good view was unable to identify the suspect, and if there were discrepancies and contradictions in the descriptions of the perpetrator given by the identifying witness, then this can count towards the eyewitness evidence being poor. For the US, the case of *Manson* in 1977 set out a five-part test to decide whether eyewitness evidence was reliable or not.[55] This test included what opportunity the witness had to view the criminal, the witness' degree of attention, the accuracy of the witness' prior description of the criminal, the level

[54] *R* v *Turnbull* [1976].
[55] *Manson* v. *Braithwaite* [1977].

of certainty demonstrated by the witness at the time of the identification, and the time between the crime and the confrontation.

Psycho-legal findings can be used to indicate that such factors are not reliable predictors of the accuracy of eyewitness evidence, as well as to suggest new factors that should be taken account of during evaluations of whether eyewitness evidence is reliable. This for instance occurred in the US case of *Henderson*, decided in 2011 after the proliferation of psycho-legal research on the topic, which held that courts should take account of all proven estimator and system variables that have been identified by psycho-legal research in evaluating the reliability of eyewitness evidence. [56]

However, the case law also demonstrates that courts need to develop rules that go beyond this, to provide guidance on when and in what circumstances reliability needs to be assessed pre-trial, and what should happen if elements of unreliability are demonstrated. These rules go beyond psycho-legal findings into the factors that can predict or lead to reliable versus unreliable eyewitness evidence and show that the same issue of how to balance due process and crime control models of justice reappears, as well as questions concerning what constitutes due process rights, when considering how psychological information on eyewitnesses can lead to a change in legal requirements.

The UK case of *Turnbull*, which considered instances where the main or substantial evidence against the defendant is eyewitness testimony, can be discussed first. [57] Unlike psycho-legal studies which often start by highlighting the potential problems that arise from mistaken identification, the court begins its judgment by noting that while visual identification can lead to miscarriages of justice, there is also evidence of cases where the relied upon identifications are known to be satisfactory. The court goes on to state that if no one could be convicted on eyewitness identification or testimony alone, “affronts to justice would frequently occur”, pointing to the effects this would have on the “maintenance of law and order”, and how such a rule would “gravely impede the police in their work and would make the conviction of street offenders such as pickpockets, car

[56] *State* v. *Henderson* [2011].
[57] *R* v. *Turnbull*, [1976].

thieves and the disorderly very difficult". [58] The court therefore attempts to strike a balance, holding that where the quality of the eyewitness evidence is good, the jury can assess the value of it provided that adequate warning is given about any special need for caution. Where the quality of the eyewitness evidence is poor, if there is no other supporting or corroborating evidence, the judge should withdraw the case from the jury and direct an acquittal. Thus, the court finds against the solution proposed above that all eyewitness evidence should be discounted if there is no supporting evidence, justifying this due to considerations of crime control and the burden on police work. However, to balance this with the concerns that arise from false identifications, the court provides a rule that when eyewitness evidence is poor and unsupported by other evidence, the eyewitness evidence will be removed from trial and an acquittal directed.

The argument that eyewitness evidence which demonstrates factors found to increase the likelihood of a false identification should be excluded from trial has also come before the US courts. One case which discusses this issue is *Henderson*.[59] Here, the court drew heavily on psycho-legal evidence, finding as above that such evidence is relevant when evaluating whether eyewitness evidence is reliable. However, when deciding how to handle unreliable eyewitness evidence itself, the court ruled against a total exclusion of potentially unreliable eyewitness evidence, justifying this because of the loss of reliable evidence that would occur, and the balance that has to be made between the defendants' right to a fair trial and the State's responsibility to ensure public safety.[60] The court also points to the practical consequences of such a rule, such as the possibility that the system would be overwhelmed by cases whose eyewitness evidence is not likely to be suppressed on the basis of estimator variables alone in any case.[61]

Another earlier case from the US that demonstrates how the balance between rights of the defendant and rights of the state is made is *Stovall v Denno*.[62] Here it was held that although the identification procedure was suggestive and potentially unreliable (it involved taking one suspect alone to the eyewitness for identification without a lawyer for the

[58] *R* v. *Turnbull* [1976], p.229
[59] *State* v. *Henderson* [2011].
[60] Supra, p. 922.
[61] Supra, pp. 923-926.
[62] *Stoval* v. *Denno* [1967].

suspect present), it was necessary due to the State's "responsibility to identify the attacker" and the fact that the only living witness had just undertaken major surgery, was unable to leave the hospital to attend a line-up procedure, and no one was sure how long the witness might live for.[63] By demonstrating that the requirement for eyewitness evidence to be reliable may be sacrificed if police can show there was no other way to obtain the relied upon eyewitness identification, this case therefore emphasises the valued role that eyewitness evidence plays in catching criminals, and how this can potentially override the rights of defendants in certain 'necessary' situations.

These cases have been chosen to show that while psychology may help to identify what is reliable versus unreliable eyewitness evidence, this does not tell us how the balance between due process and crime control should be made and therefore how eyewitness evidence should be treated by courts of law and what the legal requirements concerning eyewitness testimony should be. For instance, should all unsupported eyewitness evidence be excluded if this would mean that crimes such as pickpocketing frequently go unpunished? If not, how do we decide which unsupported eyewitness evidence should be excluded, and what can count as supporting evidence? The cases above demonstrate that, beyond the empirical question of whether eyewitness evidence is reliable, a separate matter is the definition of the problem itself, or how the instance of injustice can be understood. Whilst psycho-legal studies as above define the problem as wrongful conviction based on mistaken eyewitnesses, the legal cases analysed show that the courts instead define the problem as balancing the rights of the defendant to a fair trial with the responsibility of the State to ensure public safety.

Indeed, a closer analysis of the UK and US case law will reveal that what the legal rights to a fair trial are considered to be also differ and that this too impacts on how psychological information regarding the reliability of eyewitness testimony is incorporated into the law. Thus, another way that due process or rights to a fair trial can be and is defined by others and by the law focuses on the wrongfulness of police procedures involved and not on the reliability or accuracy of the outcome itself for the defendant.

[63] Supra, p. 302

Clark, for instance, emphasises the legitimacy of police procedures as a relevant factor to consider in relation to the topic of eyewitnesses.[64] The test here is whether the procedures used by police are manipulative or coercive and not whether the resulting outcome is accurate or reliable. If the problem is defined as coercive police procedures and not the actual outcome of wrongful conviction based on unreliable eyewitness evidence, many of the findings above e.g., whether a jury can sufficiently identify and discount unreliable evidence and the estimator variables that affect the reliability of eyewitness identification, potentially become irrelevant.

Clark's identification of legitimacy of procedures as a relevant factor for eyewitness issues is reflected in the approach that has been taken by US courts. The difference between the UK and US legal approach highlights that the two systems define the 'problem' of inaccurate eyewitness identifications in different ways. Although the law in both highlights that the debate between due process and crime control models of justice needs to be addressed, the US courts draw attention to the question of whether it is the unreliability of eyewitness identifications that is the problem for due process because it leads to wrongful convictions, or whether it is any improper police conduct involved in eyewitness procedures that is the problem for due process, and if it is both how to balance these. While the categories of manipulative police conduct and unreliable eyewitness identifications may seem to overlap – if an identification has been procured by improper police procedures it is likely to be unreliable – a review of US case law will show that these differences in how the issue is defined can lead to very different case outcomes and legal requirements concerning eyewitness reliability.

In the US, a two-pronged approach to the admissibility of eyewitness evidence has been used which considers both whether police suggestibility was present as well as whether the eyewitness evidence is reliable. That the balance between these two tests can have a great effect on the case outcome is demonstrated in *Perry* v. *New Hampshire*, one of the more recent cases concerning eyewitness evidence that has come before the US Supreme Court. In this case, it was emphasised that there needs to be proof

[64] Clark, "Costs and Benefits of Eyewitness Identification Reform."

of police suggestibility first before the court will consider whether the eyewitness evidence should be removed from trial due to its unreliability.[65]

The circumstances of the eyewitness identification in this case certainly appear to demonstrate many of the factors that would lead a psycho-legal scholar to classify the identification as unreliable. The identification took place in the dark, it was cross-racial with the suspect as the only African-American man in the area, and the eyewitness was unable to later identify the suspect in a photographic array.

However, drawing on previous case law, the court identifies a primary aim of excluding eyewitness evidence as to deter police use of improper identification procedures. Where the police do not engage in improper conduct, as in this case where the identification was spontaneous and therefore no police-conducted procedure was used, this "deterrence rationale is inapposite".[66] The court also relies on arguments that if all identifications made under suggestive circumstances could be excluded, this would mean trial courts would have to be involved routinely in preliminary hearings, thus pointing to the administrative burden that would occur if all identifications have to be tested for reliability.

The majority's opinion can be compared with the dissenting judgment from Justice Sotomayor. The main point of difference between the two judgments is that for Justice Sotomayor, the due process concern "arises not from the act of suggestion, but rather from the corrosive effects of suggestion on the reliability of the resulting identification".[67] Thus, defining the problem as one of unreliability of eyewitness evidence only rather than as one of police deterrence serves as the reason for Justice Sotomayor concluding in a different direction from the majority, that the eyewitness identification in this case should be inadmissible due to its unreliability.

The *Perry* case therefore highlights that where potentially unreliable eyewitness evidence is used, the evidence may still be admitted to trial on the basis that the problem with

[65] *Perry* v. *New Hampshire*, 565 U.S. 228 [2012].
[66] Supra, p. 242.
[67] Supra, p. 250.

unreliable evidence is defined as one of illegitimate police procedures rather than one of inaccurate identification itself.

An earlier US case, *Manson* v. *Braithwaite*[68], shows how this debate affects cases where the evidence is reliable but has nonetheless been procured by suggestive police procedures. Here, an officer identified the suspect from a single photo that was left on his desk as the culprit whom the officer had seen previously at a drug buy when he was acting undercover. Whilst the Court found that identifications from single-photograph arrays can be viewed in suspicion, it held that overall the identification was reliable because under the circumstances there was not a very substantial likelihood of irreparable misidentification. In a similar way, the case of *Madison* shows that although the identification procedure set up by the police was suggestive, since the defendant was shown repeatedly in the photographs and was at the centre of the photographs in quite a large number of the photograph arrays, the case was remanded to the trial court to evaluate whether the identification was nevertheless reliable enough to outweigh the suggestiveness of the police procedure.[69]

The dissent from Justice Marshall in *Manson* argues against the majority judgment, contending that all eyewitness evidence procured by police suggestiveness should be discounted despite additional factors that attest to the evidence being nonetheless reliable. What can be highlighted is that his dissent again depends on his differing definition of what 'due process' means. He defines due process as requiring the State to uphold the same standards of fundamental fairness, whether the defendant is guilty or not. Observing that a rule which permits evidence despite police suggestibility as long as it is reliable focuses only on whether the correct person is found guilty of the crime, and ignores how the correct person is found guilty, he describes the majority's interpretation of due process as 'disturbing'. Justice Marshall's emphasis on the importance of the procedure rather than the outcome reflects Clark's identification of legitimacy as a relevant factor when deciding the guidelines and legal rules concerning eyewitness evidence. His dissenting opinion can be read in contrast with the opinion from Justice Sotomayor, who

[68] *Manson* v. *Braithwaite*, [1977].
[69] *State* v. *Madison*, 109 N.J. 223, 536 A.2d 254 [1988].

instead emphasised unreliability as the main problem regarding the admissibility of eyewitness evidence.

The two-pronged test in the US therefore leads to outcomes where police misconduct in the gathering of eyewitness evidence is proven yet the evidence is still deemed admissible because other factors point to its reliability. This coincides with the outcome that would occur under the UK approach, where reliability of evidence remains the main factor to be balanced against factors such as crime control and police burdens. On the other hand, another possible outcome in the US is where eyewitness evidence may be unreliable but is nevertheless admitted because no police misconduct is proven. This can be seen to contrast with the UK approach where police misconduct does not have to be proven before courts will consider the potential that eyewitness evidence is inadmissible due to its unreliability.

The different approaches that US and UK courts have taken regarding the admissibility of eyewitness evidence, as well as the dissenting judgments in the US cases, therefore demonstrate that there is more to the legal issue of eyewitness evidence and the fact that it can lead to wrongful conviction than psychological information concerning the reliability of eyewitness memory. One of these issues as discussed above is the impact that any reform to the law or police procedures has on bringing correct individuals to justice - the crime control aspect of criminal justice systems. Due to this, both the US and UK courts agree that there should not be total exclusion of potentially unreliable evidence. Despite this, there are still different limits that are set by the legal systems, with the UK focusing on whether there is any additional supporting evidence for poor quality eyewitness evidence that could make it admissible in trial,[70] and the US including factors such as whether the way in which the eyewitness evidence was obtained indicated unreliability but was nevertheless necessary, and whether the exclusion of evidence would actually deter police from suggestive practices. This highlights another issue, which concerns whether due process means doing the best to ensure the right outcome for the defendant (reliability is the standard - as in the UK, and argued for by Justice Sotomayor), or doing the best to ensure that the correct procedures are followed (police suggestibility is the standard – as

[70] The facts of the *Turnbull* case [1976] demonstrates that supporting evidence includes circumstantial evidence such as that the defendant had the same model of car as the perpetrator in the same area at the same time.

argued for by Justice Marshall), or a mixture of both (first test if police suggestibility is present, then assess the overall reliability of the evidence – as in the US).

It is noted that defining the legal issue as one of wrongful conviction based on unreliable eyewitness evidence carves out a greater role for psychology than when the problem is defined as one of police suggestibility. Both system and estimator variables become relevant when the test is whether the eyewitness evidence is unreliable or not. However, if the problem is defined solely or partially as the use by police of suggestive practices, then only system variables become relevant. The fact that psycho-legal studies tend to define the problem as one of wrongful convictions based on unreliable eyewitness evidence again indicates perhaps potential pressure based on the Mainstream Proposal in the psycho-legal literature that psycho-legal research should lead to arguments for legal reform.

3.3 Analysing Proposed Approaches under the Topic of Eyewitnesses

An overview of psycho-legal research on eyewitnesses reveals that the mainstream approach taken is to use psychology to address a psychological inaccuracy that is made by the law, placing this in the context of an instance of injustice, in order to make an argument for legal reform. Many aspects of this approach reflect what has been identified as the Inter-Disciplinary Proposal for psycho-legal research, and in particular using psychology to contribute to legal issues. As discussed in Chapters 1 and 2, this approach is also the one which tends to be emphasised in the psycho-legal literature.

The engagement itself with research that reflects the Inter-Disciplinary Proposal is relatively unsurprising since eyewitnesses was chosen as an example that fits into the Empirical Alternate Proposal, which as discussed in Chapter 1 is in essence a proposal for how research under the Inter-Disciplinary Proposal can be carried out. However, what is more noteworthy from this chapter is the finding that psycho-legal research on eyewitnesses seems to focus only on the methods which reflect the Inter-Disciplinary Proposal, and does not engage with the Multi-Disciplinary or Trans-Disciplinary Proposals. Thus, the studies did not provide serial views of the psychological perspective on eyewitnesses and then the legal perspective. Nor did they seek to engage non-academic actors or critique the disciplinary boundaries of psychology and law. As will be discussed

later, there was some evidence that these psycho-legal studies were engaging with the topic of eyewitnesses as a real-world problem, but this seemed to focus only on eyewitnesses as a problem for the legal system.

This case study therefore provides some evidence that in reality, psycho-legal researchers do tend to engage with an approach that reflects the Inter-Disciplinary Proposal whereby one discipline is used to contribute to the other. Interestingly, contrary to the Mainstream Proposal for how such an approach should be carried out, psycho-legal research in practice does not simply expose psychological inaccuracies which the law makes in order to establish an argument that the legal requirements should be changed to correct this inaccuracy. Instead, research in this area indicates an acknowledgement that the law can provide justifications against correcting psychological inaccuracies, as the Alternate Proposal does.

This acknowledgement is found at two stages of eyewitness research. Firstly, instead of focusing only on any psychological inaccuracies which the law makes, the studies are keen to emphasise that solutions to fixing these inaccuracies is at 'no-cost'. They can thus be seen to already participate in the cost-benefit analyses which Wigmore and Morse have argued need to be taken account of when making an argument for legal reform. In essence, the work that goes into proving that solving psychological inaccuracies is 'no-cost' is an argument that the law has no justification to not follow psychological reality. By engaging with this argument, this demonstrates agreement on the part of psycho-legal scholars that there is the potential for law to provide justification against following psychological reality. Secondly, psycho-legal researchers emphasise that the law's traditional safeguards are unable to protect against the problem of wrongful convictions arising from mistaken eyewitness identification. This again demonstrates awareness that if the law were to prove that traditional safeguards are adequate, this justifies against legal reform even if psychological fact proves that eyewitness evidence is unreliable.

Nevertheless, it is of interest that there is a general tendency to define the legal issue and answer the cost-benefit questions involved in a way that coincides with the answers that would provide an argument for change to legal requirements. These choices, to define the issue as one of wrongful conviction based on unreliable eyewitness evidence, and to

emphasise that ‘no-cost’ solutions exist and that traditional safeguards are inadequate, reflect perhaps the danger of potential pressure that is placed on researchers when the success of psycho-legal study is considered to rest on whether legal reform is achieved. As discussed in Chapter 1, mainstream psycho-legal literature through the Mainstream Proposal does emphasise legal reform as the end goal of psycho-legal research. This is problematic particularly because, as this chapter demonstrated, the law can and does identify the legal issue not as how to prevent wrongful convictions but instead how to ensure due process or fair trial to the defendant while protecting the rights and responsibilities of criminal law enforcement bodies.

Indeed, the reliance that is demonstrated by psycho-legal research on eyewitnesses to prove that inaccurate eyewitness testimony leads to wrongful convictions as an instance of injustice could be taken as evidence that in reality psycho-legal scholars are more interested in the goal of combining law and psychology to solve real-world problems rather than contributing to legal issues. As discussed in Chapter 2, this goal of interdisciplinary research is associated with the Trans-Disciplinary Proposal. While this is one way in which to understand why psycho-legal research in this area tends to focus on defining the problem as one of wrongful convictions, it perhaps does not explain why the suggested solutions in this area focus on making an argument for legal reform. In other words, why the studies nevertheless focus on framing this potential real-world problem as only a legal issue. Thus, the solutions which the psycho-legal studies propose is reform to the legal requirements of expert testimony and eyewitness procedures.

When considering the issue as one of how to prevent wrongful convictions that are caused by inaccurate eyewitness identifications, it is notable that ‘fixing’ or correcting the psychological inaccuracies through legal requirements is not the only solution. In fact, one of the issues in this area could actually be the time pressure that is placed on police to solve crimes, or the availability of the material that is required to conduct best-practice eyewitness procedures. Such practical concerns were highlighted in the case of *State* v. *Adams*, where the detective testified that he was aware that the identification procedure he conducted fell below the standard practice and that he would conduct the procedure differently if he were to do it again, but that he was pressed for time and could not find

more suitable photos to use in that moment.[71] This example suggests that consideration of the issue as a real-world problem instead of as a strictly legal issue to which psychology can contribute can lead to research which is more extensive and appropriate to the question of how to prevent wrongful convictions from occurring. Thus, instead of focusing only on the fact that the law has made an inaccurate psychological assumption and that the legal system should therefore fix this, attention could be drawn to why inaccurate eyewitness identifications are likely to occur in the first place. This would encourage research to consider the wider context, and the wider range of factors that may impact on the occurrence of psychologically inaccurate eyewitness identification.[72] For example, research into the time pressures that are placed on police and how this may be one way to solve the real-world problem of wrongful convictions.

One of the questions identified in Chapter 1 concerned the possibility of the Psychological Perspective Proposal - whether law can contribute to psychological issues. While the mainstream approach that has been taken to eyewitness research is identified as using psychology to contribute to legal issues, there are some minority psycho-legal studies in this area which instead provide evidence that the Psychological Perspective Proposal is indeed a possible way for psychology and law to interact.

For instance, research that draws on evidence from the legal context has led to a re-evaluation of the psychological findings regarding the relationship between self-reported confidence and accuracy in memory. Using simulated line-ups similar to those used in the legal context, it was found that a positive correlation did not exist between confidence and accuracy, contradicting some of psychology's previous findings. Further study concluded that this was not because memory functioned differently in the legal arena but that the

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[71] *State v. Adams*, 943 A.2d 851, 860 [N.J. 2008] at p. 855.

[72] Critical psychologists highlight that this issue exists in other areas of mainstream psychology, where psychology tends to over-emphasise the individual, affecting how the problem and solution is defined. Taking the example of workplace stress, psychologists tend to see the problem as how the individual handles the stress and therefore the solution to be to help the individual through e.g., cognitive therapy, to handle the stress in a better way. However, the problem can also be defined, when we start to look at factors which are not purely psychological, as a problem with the nature of work in our societies. The solution then would be to change the nature of work to be less stressful. See Dennis Fox and Isaac Prilleltensky, "Introducing Critical Psychology" in D. Fox, and I. Prilleltensky (eds.), *Critical Psychology: An Introduction*, (London; Thousand Oaks, Calif: SAGE Publications, 1997), p. 3.

strength of the relationship between confidence and accuracy is moderated by factors often found in the legal context such as feedback from investigators or the use of similar distractor items.[73] The real-life example of line-ups from the legal context therefore helped psychology to develop theories on the relationship between confidence and accuracy by pointing out factors that can moderate this relationship.

Although these studies have not yet been carried out, there are other similar examples that can be found in the area of eyewitnesses for how the legal context could be used to suggest new factors for psychology to consider as it develops theories on memory retrieval. For instance, while Clark found most 'no-cost' claims to be incorrect, he discovered that at least for the recommendation that line-ups should be used instead of showups (where a single suspect is shown to the eyewitness), the 'no-cost' view was supported.[74] Experimental data confirms that using line-ups instead of showups will reduce the likelihood of mistaken identifications while having no impact on the likelihood of correct identifications. However, as Clark identifies, there are other issues surrounding the use of showups in real life. Generally, showups are conducted soon after the crime when eyewitness memory may be better and when there is the opportunity to catch the perpetrator near the scene before the trail runs cold. The example of how showups and line-ups are used in real-life can provide new avenues for psycho-legal research, suggesting that an important question to investigate is whether time lapses moderate or mediate the existing relationships that have been found between different variables and accurate memory retrieval.

Likewise, laboratory research has identified a potential weapons effect on eyewitness memory.[75] The findings have been that participants are more likely to demonstrate unreliable memory of a crime if the offender was carrying a weapon, compared to situations when the offender is not carrying a weapon. An explanation that has been suggested is that the presence of a weapon distracts witnesses so that they are not able to

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[73] D. Krauss and B. D. Sales, *The Psychology of Law: Human Behavior, Legal Institutions, and Law*, (Washington, D.C: American Psychological Association, 2015), p. 46.
[74] Clark, "Costs and Benefits of Eyewitness Identification Reform."
[75] For reviews of this research, see E. F. Loftus, G. R. Loftus, and J. Messo, "Some Facts About 'Weapon Focus,'" *Law and Human Behavior*, 11(1) (1987), pp. 55–62; Fawcett et al., "Of Guns and Geese."

accurately record other factors of the event, such as what the offender looks like. What is interesting is that this effect has not been found in archival records of crimes that involve weapons.[76] This has led to an emphasis again on the difference between laboratory and real-life settings, and that factors which are present in real-life settings may provide psychology with new variables that are found to impact on the weapons effect.

These examples point to the role that law can play in improving the external validity of conclusions based on psychology findings. An observation that has been made is that most eyewitness research is experimental, with few studies engaging with real-life data from the legal context.[77] John Yuille has been one of the eyewitness researchers interested in analysing examples from real-life legal cases. For him, the motivation for undertaking such research is that the study of actual witness to actual crimes enables generalisations from experimental studies to be evaluated.[78] In one of his studies, he investigated a real-life crime situation, interviewing the witnesses of an armed robbery five months after the event to test for their accuracy of the description of the event.[79] Yuille found that the witnesses were actually highly accurate, suggesting that the salience and uniqueness of the event, as well as the personal involvement of the witnesses in the event, meant that the memory remained vivid for the witnesses. These factors are identified as necessarily absent from psychological experiments, where it would be unethical to submit participants to the experience of an armed robbery. Similarly, his archival analysis of the actual victims and witnesses to robbery and fraud found that different crime types can affect eyewitness recall and recognition differently, suggesting that this is a factor that needs to be taken into account when drawing conclusions from psychology research on eyewitnesses.[80] These

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[76] B. W. Behrman, and S. L. Davey, "Eyewitness Identification in Actual Criminal Cases: An Archival Analysis," *Law and Human Behavior,* 25(5) (2001), pp. 475–91; Fawcett et al., "Of Guns and Geese."

[77] D. B. Wright, and A. T. McDaid, "Comparing System and Estimator Variables Using Data from Real Line-Ups," *Applied Cognitive Psychology,* 10(1) (1996), pp. 75–84; Behrman and Davey, "Eyewitness Identification in Actual Criminal Cases." Also observed is that the court in *State* v. *Henderson* [2011] which cited psycho-legal research could only point to four that were based on real-life cases.

[78] J. C. Yuille, and J. L. Cutshall, "A Case Study of Eyewitness Memory of a Crime," *Journal of Applied Psychology,* 71(2) (1986), pp. 291–301.

[79] Supra.

[80] P. A. Tollestrup, J. W. Turtle, and J. C. Yuille, "Actual victims and witnesses to robbery and fraud: An archival analysis" in D. F. Ross, J. D. Read, and M. P. Toglia (eds.) *Adult eyewitness testimony: Current trends and developments,* (Cambridge University Press, 1994).

studies provide indications that in this area, the legal context can be used to improve psychological theory.

3.4 Summary and Conclusions

Psycho-legal research on the reliability of eyewitnesses is generally accepted by psycho-legal sceptics as a suitable topic through which psychology can contribute to the law. This chapter's case study provides an analysis of how such psycho-legal research is carried out in practice.

Firstly, it demonstrates that for this topic psycho-legal scholars in practice tend to focus on the Inter-Disciplinary Proposal, using psychology to contribute to legal issues. Further, that psycho-legal researchers within this approach do acknowledge cost-benefit issues that need to be considered before psychological evidence is used to make an argument for legal reform. Overall, this indicates that researchers endorse the Alternate Proposal over the Mainstream Proposal. This chapter also demonstrated that psycho-legal scholars define legal problems in particular ways that tend towards providing psychology with a greater role to play in arguments of legal reform. For instance, defining the issue purely as one of preventing wrongful convictions and thus not engaging with the due process debates which the legal courts have demonstrated are relevant. This tendency indicates a reason for why the Alternate Proposal's version of Inter-Disciplinary research should indeed be preferred, and why the emphasis of the Mainstream Proposal on legal reform as a mark of success for psycho-legal research may be problematic.

Secondly, in tending to define inaccurate eyewitness evidence as a problem because it leads to a real-life instance of injustice, the chapter identified possible indication of an interest on the part of psycho-legal researchers to combine law and psychology in alternative ways to those usually identified in the psycho-legal literature. Specifically, to engage in the Trans-Disciplinary Proposal from the interdisciplinary literature, whereby disciplines are brought together in order to solve a real-world problem.

Thirdly, the topic of eyewitnesses was used to provide preliminary support for the possibility of the Psychological Perspective Proposal which suggests that the disciplines can be brought together due to the potential for psychology to learn from the law.

The next chapter will consider research on the topic of criminal retributive practices as an example of a category of psycho-legal claims which psycho-legal sceptics remain wary of. This will test whether, as indicated by psycho-legal sceptics in their Empirical Alternate Proposal, there is a difference in the methodological interaction between law and psychology depending on whether psychology is addressing an empirical or a normative/conceptual legal issue.

Chapter Four – Psycho-Legal Research on Criminal Retributive Practices

The Empirical Alternate Proposal identified in Chapter 1 argues that psychology is able to contribute to empirical legal issues but is less able to contribute to normative and conceptual legal issues.[1] This chapter will analyse the case of psycho-legal research on criminal retributive practices as an example of an area which has attracted criticism from psycho-legal sceptics. This will allow an analysis of how the distinction made by the Empirical Alternate Proposal plays out in real-life psycho-legal research, and whether as the psycho-legal sceptics suggest, the approach taken by psycho-legal research depends on the type of legal issue which is engaged with.

4.1 The psycho-legal challenge to law's retributive practices

The challenge which has been made by psycho-legal research to legal responsibility doctrines and practices has been described by Adam Kolber as the "central debate in the field of neurolaw".[2] Kolber makes reference specifically to the claims made by Joshua Greene and Jonathan Cohen in their article "For the law neuroscience changes nothing and everything" against law's retributivist practices,[3] and the counter-argument by Stephen Morse that the advances in neuroscience which Greene and Cohen point to will not and should not affect the law.[4] Michael Moore too identifies the neuroscience challenge to retributive punishment in criminal law as "*The* most common legal institution and

[1] It is noted that normative and conceptual issues are distinct. As discussed in Chapter 1, the reason that they are taken together for the purposes of this thesis is because this reflects the categorisation which psycho-legal sceptics make when they challenge the ability for psychology to contribute to either legal normative or legal conceptual issues, while accepting psychology's role in contributing to empirical legal questions.

[2] A. J. Kolber, "Will There Be a Neurolaw Revolution?," *Indiana Law Journal,* 89(2) (2014), pp. 807-846.

[3] J. Greene, and J. Cohen, "For the Law, Neuroscience Changes Nothing and Everything," *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences,* 359, (1451) (2004), pp. 1775–1185.

[4] Morse, "Lost in Translation?"; S. J. Morse, "Determinism and the Death of Folk Psychology: Two Challenges to Responsibility from Neuroscience," *Minnesota Journal of Law, Science & Technology,* 9(1) (2008), pp. 1-36; S. J. Morse, "The Neuroscientific Non-Challenge to Meaning, Morals, and Purpose," in G. Caruso, and O. Flanagan (eds.), *Neuroexistentialism: Meaning, Morals, and Purpose in the Age of Neuroscience,* (New York: Oxford University Press, 2018).

concomitant political philosophy thought to be challenged by contemporary neuroscience",[5] noting that the claim made has relevance for all desert-based schemes in other areas of law, such as corrective justice theories of tort and promissory theories of contract. The challenge to legal responsibility practices is mentioned by Oliver Goodenough and Micaela Tucker as one of the main areas of current neurolaw research.[6] Thus, similarly to the previous chapter which focused on eyewitnesses as a popular area of psycho-legal research, this chapter will focus on the psycho-legal challenge to legal responsibility and retributive punishment as one of the more popular areas of psycho-legal and neurolaw research.

Another reason the example of criminal retributive practices is chosen is because it falls under the general category of psycho-legal research which is treated with more caution by psycho-legal sceptics. Identified in Chapter 1 was the Empirical Alternate Proposal, a position which argues that psychology, while able to contribute to empirical legal issues, is less able to contribute to normative or conceptual legal issues. This thesis will henceforth term psycho-legal research which attempts to use psychology to contribute to empirical legal issues as empirical psycho-legal claims, and psycho-legal research which attempts to use psychology to contribute to normative legal issues as normative psycho-legal claims. Psycho-legal research on criminal retributive practices is taken by psycho-legal sceptics as the prime example of a normative psycho-legal claim.[7]

Thus, the psycho-legal claim which Morse focuses his scepticism on refers to the challenge that has been made by neuroscience and psychology to legal responsibility, in particular with regard to law's criminal retributivist practices.[8] Similarly, the claims which psycho-legal and neurolaw studies have made towards legal responsibility doctrines

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[5] M. S. Moore, "Responsible Choices, Desert-based Legal Institutions, and the Challenges of Contemporary Neuroscience," *Social Philosophy and Policy,* 29(1) (2012), pp. 233–279, p. 235.
[6] O. R. Goodenough, and M. Tucker, "Law and Cognitive Neuroscience," *Annual Review of Law and Social Science,* 6(1) (2010), pp. 61–92, pp. 74-75.
[7] The chapter will evaluate the Empirical Alternate Proposal by focusing on a normative psycho-legal claim, and not a conceptual due to the prominence that this particular topic has in the literature. It is noted that this means a conceptual legal issue is therefore not analysed. However, Chapter 5 will emphasise how the conclusions from this chapter's analysis also carry over to conceptual legal issues.
[8] S. J. Morse, "Lost in Translation? An Essay on Law and Neuroscience," M. Freeman (ed.) in *Law and Neuroscience: Current Legal Issues Volume 13* (Oxford University Press, 2011), pp. 529-562, p. 536.

is one focal area of Pardo and Patterson's doubt regarding the potentials of psycho-legal research. Together with other general psycho-legal sceptics, they critique the ability of data from psychology or neuroscience to answer normative questions regarding legal responsibility while remaining positive of psychology's role in testing for empirical questions concerning criterial support for the instantiation of specific legal criteria.

By analysing psycho-legal research on criminal retributive practices, this chapter will therefore be able to analyse what the approach in real-life is regarding research that attempts to use psychology to contribute to the type of legal issues which psycho-legal sceptics argue against.

Morse identifies two separate areas of empirical evidence from neuroscience and psychology that are used to make the psycho-legal challenge to criminal retributive practices. First, neurolaw research relies on recent neuroscience findings which indicate that physical events in our brains determine our behaviour and that we therefore lack free will. As Morse comments, this is similar to earlier determinism arguments which have been made by geneticists, psychologists, and/or sociologists.[9] Thus, the neuroscience and psychological evidence referenced by Greene and Cohen in their article is that which seeks to demonstrate that people are not 'in control' of their actions, because in fact human behaviour is determined by physical events that occur in the brain, as well as by genes and the environment.

Secondly, neuroscience and psychology findings are used to threaten the "law's concept of the person, which grounds its concept of responsibility".[10] Morse distinguishes four different kinds of evidence that are cited by psycho-legal and neurolaw scholars to support the claim that the law's concept of the person is inaccurate; studies which show that a lot of our activity is caused by variables which we are not aware of, studies which highlight the large amount of our activity that takes place at the subconscious level, experiments which demonstrate that participants can be misled about the causal contribution to their behaviour, and lastly studies which indicate that specific regions of the brain hold the

[9] Morse, "Lost in Translation?," p. 534.
[10] Morse, supra, p. 543.

biological substrate of psychological processes.[11] Thus, a study that has been referenced to support the argument that the law's concept of the person is empirically inaccurate is one which shows that subjects who are non-consciously exposed to a happy face rate a fruit beverage differently and drink more of the fruit beverage than subjects who are exposed to an angry face.[12] This study is an example of the type of evidence found in the first category. Other arguments can be found which focus on findings in the second category that indicate that much of our decision making is greatly influenced by unconscious factors.[13]

What can be noticed is that parallel to the case of eyewitnesses, the role of psychology in this area of psycho-legal research is to provide empirical evidence on human thought and behaviour and use this to reveal an inaccurate assumption that the law makes. Whilst for eyewitnesses this assumption was the accuracy and reliability of eyewitness memory and testimony, here the assumption which neuroscience and psychology seek to expose as incorrect is either that humans are capable of exercising free will or the folk psychological view of the person which the law presupposes.

A more in-depth analysis of the psycho-legal research in this area will show that there are additional factors that are relied on by researchers in order to make an argument for legal reform to criminal retributive practices on the basis of psychological evidence. These factors closely follow those that were identified in the previous chapter and will be discussed further in the following sections as reliance on proving that the inaccurate psychological assumption leads to a consequence of injustice in part due to the way in which the problem is defined, and reliance on proving that a 'no-cost' solution is available.

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[11] For a summary of the neuroscience and psychology findings cited, see Morse, "Determinism and the Death of Folk Psychology," pp. 25-31.

[12] P. Winkielman, K. C. Berridge, and J. L. Wilbarger, "Unconscious Affective Reactions to Masked Happy Versus Angry Faces Influence Consumption Behavior and Judgments of Value," *Personality and Social Psychology Bulletin*, 31(1) (2005), pp. 121–135, cited in P. S. Davies, and P. A. Alces, "Neuroscience Changes More Than You Can Think," *Faculty Publications* (2017) accessed at https://scholarship.law.wm.edu/facpubs/1845.

[13] K. Burns, and A. Bechara, "Decision Making and Free Will: A Neuroscience Perspective," *Behavioral Sciences & the Law*, 25(2) (2007), pp. 263–280.

4.1.1 Greene and Cohen's claim

Greene and Cohen's article is considered as an important and influential component of this debate, and has formed the basis for many of the criticisms that have been made towards the psycho-legal and neurolaw claim for reform to retributive practices. The following excerpt from their article is quoted below to provide a summary of their main claims and a starting point for an analysis of how they use the empirical findings from neuroscience to argue for legal reform:

> We argue that the law's intuitive support is ultimately grounded in a metaphysically overambitious, libertarian notion of free will that is threatened by determinism and, more pointedly, by forthcoming cognitive neuroscience. At present, the gap between what the law officially cares about and what people really care about is only revealed occasionally...We argue that new neuroscience will continue to highlight and widen this gap...The net effect of this influx of scientific information will be a rejection of free will as it is ordinarily conceived, with important ramifications for the law. As noted above, our criminal justice system is largely retributivist. We argue that retributivism, despite its unstable marriage to compatibilist philosophy in the letter of the law, ultimately depends on an intuitive, libertarian notion of free will that is undermined by science. Therefore, with the rejection of common-sense conceptions of free will comes the rejection of retributivism and an ensuing shift towards a consequentialist approach to punishment, i.e., one aimed at promoting future welfare rather than meting out just deserts. Because consequentialist approaches to punishment remain viable in the absence of common-sense free will, we need not give up on moral and legal responsibility.[14]

This quote usefully highlights how the elements of Greene and Cohen's argument mirror to a large extent the psycho-legal research on eyewitnesses in terms of the methodological approach that is used in order to position empirical evidence from neuroscience and/or psychology as a basis for legal reform.

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[14] Greene and Cohen, "For the Law, Neuroscience Changes Nothing and Everything," p. 1776.

First, Greene and Cohen start with why the inaccuracy revealed by neuroscience causes a problem for the legal system. Here, the issue pointed to is that neuroscience, by undermining belief in free will, will thus undermine people's intuitive support for the law's retributivist practices. The neuroscience findings referenced in their article include those which are increasingly proving that our actions and behaviour are determined by physical events in the brain that we lack control of. For Greene and Cohen, this evidence gives rise to a "scepticism regarding the notion of desert, grounded in a broader scepticism about the possibility of free will".[15] It affects people's moral intuitions about responsibility and free will because what it is claimed that we really care about is whether the accused or "something else" is responsible, where something else could be the accused's brain, genes or environment.[16] The more neuroscience and psychology reveal the causes of a person's bad behaviour, the less we see that person as truly deserving of punishment.[17] Later in their article, Greene and Cohen explain why this causes a problem of injustice for the law. For them, the "legitimacy of the law itself depends on its adequately reflecting the moral intuitions and commitments of society".[18] Once neuroscience changes society's moral intuitions to no longer support retributivist practices based on moral desert, this will therefore remove the legitimacy law has to engage with such retributivist practices.

Secondly, Greene and Cohen emphasise that the criminal justice system is largely retributivist, and thus there are no 'safeguards' in the legal system that act to guard against the problem. Also emphasised within their argument is that there is a 'no-cost' solution to all of this. Punishment based on consequentialist justifications, which unlike retributive justification does not rely on notions of desert, can be used instead to fulfil and legitimise the practical requirement for law to punish misdeeds and thus ensure the deterrent and containment effects of punishment.[19]

Importantly, it is not only Greene and Cohen's argument which demonstrates these elements. These factors, an explanation for why the inaccurate psychological assumption

[15] Supra, p. 1777.
[16] Supra, p. 1780.
[17] Supra, p. 1783.
[18] Supra, p. 1778.
[19] Supra, p. 1783.

made by the law in this area leads to criminal retributive systems being unjust, a reliance on the claim that the criminal justice system is largely retributivist, and a reliance on the proposal of a 'no-cost' solution, also appear in the other neurolaw and psycho-legal challenges that are made to legal retributive practices. Whilst the same 'no-cost' solution of consequentialist punishment and claim that the criminal justice system is largely retributivist are stressed by others,[20] it is noteworthy that a variety of different claims exist within the psycho-legal research as to why a problem is caused for the law. This can be compared to the psycho-legal challenge to eyewitness practices which unites around the argument that unreliable eyewitness testimony is a matter of concern for the law because it leads to wrongful convictions and therefore a case of injustice. Although a wider range of reasons why a problem is caused would seem to strengthen the challenge against legal retributive practices, an evaluation of the problems specified by psycho-legal research will indicate that their diversity to the contrary can be taken to demonstrate the lack of an existence of a strong argument that the psychological inaccuracy does actually lead to an issue for the legal system. Whereas DNA analysis and real-life examples of miscarriages of justice played the important role in eyewitness research of establishing that inaccurate and unreliable eyewitness testimony is a real concern, such a driving force may be absent here as will be discussed below.

4.2 Reliance on the Inaccurate Assumption leading to an Instance of Injustice

For one author, an argument based on compassion is relied upon. Evidence of the great influence of unconscious factors on our decision making is used to argue that a compassionate response would be to realise that current legal responsibility and legal punishment practices based on retributivism are unjustified.[21] This section will focus on evaluating the most common and frequently used reasons for why the empirical evidence

[20] See for instance Burns and Bechara, "Decision Making and Free Will", where the authors argue that we can still engage in punishment even if retributive punishment is removed, by using scientific findings to create e.g. more effective deterrence; also A. R. Cashmore, "The Lucretian Swerve: The Biological Basis of Human Behavior and the Criminal Justice System," *Proceedings of the National Academy of Sciences of the United States of America,* 107(10) (2010), pp. 4499–4504, who argues that incarceration of individuals can be rationalized through consequentialist justifications such as protecting society, acting as a deterrent, or alleviating the pain of the victim.
[21] Burns and Bechara, "Decision Making and Free Will."

causes a problem for the law. In most cases, as Moore identifies, the problem specified by those arguing for legal reform is that the desert-based schemes featured in law, most prominently retributive punishment in criminal law, can no longer be justified.[22] Under the first ground this is because it is claimed that retributivist theories depend on the existence of free will, and under the second ground this is because it is claimed that retributivist theories depend on the folk psychological view of the person being accurate.[23] In other cases, the common problem specified is that retributive practices simply do not work and for this reason should be reformed. The above argument from Greene and Cohen, that the neuroscience findings will affect peoples' moral intuitions about responsibility and therefore the legitimacy of retributive practices, will also be analysed because their article is generally considered as influential in this debate.

4.2.1 Neuroscience Proves we have no Free Will

Taking the first ground, empirical evidence is used here to prove that our behaviour is determined by physical events in the brain and that we therefore lack free will and are not able to be held responsible for our actions as retributivist practices require. However, it has been argued that such evidence does not in any case challenge the law's responsibility or retributive practices.

Morse emphasises that "none of the law's general criteria for responsibility or excuse refers to free will or its absence",[24] and that therefore the existence of free will is legally irrelevant. Thus, the criteria that need to be proven to demonstrate criminal responsibility are that the defendant acted intentionally, consciously, and with the required mens rea. Conversely, to avoid criminal responsibility, the defendant must prove that they did not act intentionally, consciously or with the required mens rea, or they must establish a legally recognised defense. None of these criteria are affected by the proof that free will is absent. This critique of the neurolaw claim reflects the challenge Wigmore made

[22] Moore, "Responsible Choices."
[23] See Morse, "Determinism and the Death of Folk Psychology."
[24] Supra, p. 9.

to Münsterberg concerning whether the empirical data actually helps to address the legal issue.[25]

It is noted that the more general threat to responsibility that is posed by determinist biological causes of human behaviour are similar to challenges that have been made by non-biological or social causes. Compatibilist responses against such determinist arguments thus remain plausible. The counter-argument which Morse, as well as Pardo and Patterson, focuses on is therefore that retributivism and the attribution of moral desert can still be justified on the basis that the folk psychological view is correct, and that people are at least capable of being guided by reason and exercising practical rationality.[26] Even if neuroscience shows that mental states have underlying neurological correlates and are accompanied by the physical activity of the brain, this does not mean that mental states become illusory.[27]

As Morse comments, "no analysis of the determinism/responsibility problem could conceivably persuade everyone. There are no decisive, analytically incontrovertible arguments to resolve the metaphysical question".[28] Indeed, by claiming that neuroscience will cause people to form new beliefs about this issues, Pardo and Patterson argue that Greene and Cohen are simply highlighting how this would be a cognitive mistake where people are persuaded by neuroscientific evidence for reasons other than any epistemic support which the evidence actually provides.[29] That this may be a real concern is indicated by studies which discuss the 'seductive allure' of neuroscience. These studies show that people can be unduly influenced by logically irrelevant neuroscience information that is used to support arguments,[30] with a recent study suggesting that this is

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[25] Wigmore, "Professor Münsterberg and the Psychology of Testimony," p. 399, as discussed in Ch 1.
[26] Morse, "Lost in Translation?", p. 543; M. S. Pardo, and D. Patterson, "Neuroscience, Normativity, and Retributivism," in T. A. Nadelhoffer (ed.), *The Future of Punishment* (Oxford University Press, 2013), pp. 133-154.
[27] Supra, "Neuroscience, Normativity, and Retributivism," pp. 150-1.
[28] Morse, "Determinism and the Death of Folk Psychology: Two Challenges to Responsibility from Neuroscience," 15.
[29] Pardo, and Patterson, "Neuroscience, Normativity, and Retributivism," pp. 144-145.
[30] D. S. Weisberg et al., "The Seductive Allure of Neuroscience Explanations," *Journal of Cognitive Neuroscience*, 20(3) (2008), pp. 470–477.

because people prefer explanations that contain reductive information.[31] Thus, when shown explanations of psychological phenomena, participants who are shown explanations which include logically irrelevant neuroscientific information find these explanations more satisfying than those who are shown the same explanations but which do not include any neuroscientific information.

4.2.2 Neuroscience Proves that the Folk Psychological View is Inaccurate

Whilst the first ground faces critiques regarding the relevance of neuroscience and psychology findings to legal practices and doctrine, the second ground faces critiques regarding the reliability and validity of empirical evidence relied upon by neurolaw or psycho-legal claims.

Thus, Morse acknowledges that if the folk psychological view of the person which the law presupposes is mistaken, then this would indeed impact on the "foundational facts" for responsibility ascriptions in the law.[32] However, Morse argues that empirical evidence from neuroscience or psychology has not, as yet, provided enough evidence to prove that the law's presupposed conception of the person is false.

In order to counteract neurolaw's challenge to the legal person, critics such as Morse and Moore clarify first what exactly the folk psychological view of the person is which the law presupposes:

> The legal view of the person does not hold that people must always reason or consistently behave rationally according to some preordained, normative notion of rationality. Rather the law's view is that people are capable of acting for reasons and are capable of minimal rationality according to predominantly conventional, socially constructed standards. The type of rationality the law requires is the ordinary person's common-sense view of rationality, not the technical notion that

[31] E. J. Hopkins, D. S. Weisberg, and J. C. V. Taylor, "The Seductive Allure Is a Reductive Allure: People Prefer Scientific Explanations That Contain Logically Irrelevant Reductive Information," *Cognition*, 155 (2016), pp. 67–76.
[32] Morse, "Determinism and the Death of Folk Psychology," p. 19.

> might be acceptable within the disciplines of economics, philosophy, psychology, computer science, and the like.[33]

The critique against the psycho-legal challenge is therefore that the evidence does not prove that this view of the person, of someone who is capable of reason and who generally acts as an intentional and not mechanical creature, is inaccurate.

To take an example of a set of experiments that is often cited by neurolaw studies to support their claims on this second ground, Morse evaluates the experiments of Benjamin Libet and the conclusions that have been made based on his findings.[34] Libet was interested in the relationship between neural activity and conscious decisions to act. His experiments involved participants being asked to perform a simple motor task, such as pressing a button or flexing a finger. The participants were to choose when they would engage in this act within a certain timeframe, and to make a note of when they had decided to act. The interesting finding was that a type of neural activity known as the 'readiness potential', which is associated with intentional actions, occurs in the brain before participants themselves become conscious of wanting to act. These studies have thus been used to prove that conscious decisions to act are influenced by unconscious activity that occurs in the brain, and more broadly that these unconscious factors do all the work so that free will plays no role in initiating voluntary action.[35]

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[33] Morse, "Lost in Translation?," p. 532; Also see Morse, "Determinism and the Death of Folk Psychology," pp. 4-5, and Moore, "Responsible Choices," pp. 237-242 for an exposition of the properties that are required for the folk psychological view of the person.

[34] B. Libet, "Unconscious Cerebral Initiative and the Role of Conscious Will in Voluntary Action," *Behavioral and Brain Sciences,* 8(4) (1985), pp. 529–539; B. Libet et al., "Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness-Potential). The Unconscious Initiation of a Freely Voluntary Act," *Brain: A Journal of Neurology,* 106 (3) (1983), pp. 623–642; B. Libet, E. W. Wright, and C. A. Gleason, "Readiness-Potentials Preceding Unrestricted 'Spontaneous' vs. Pre-Planned Voluntary Acts," *Electroencephalography and Clinical Neurophysiology,* 54(3) (1982), pp. 322–335; B. Libet, "Do we have free will?." *Journal of Consciousness Studies,* 6(8-9) (1999), pp. 47-57.

[35] D. M. Wegner, D. Gilbert, and T. Wheatley, *The Illusion of Conscious Will*, 2nd edn., (Cambridge: MIT Press, 2017), pp. 49-52, claiming at p. 51 on the basis of Libet's experiments that "Clearly, free will or free choice of whether to *act now* could not be the initiating agent"; C. S. Soon et al., "Unconscious Determinants of Free Decisions in the Human Brain," *Nature Neuroscience,* 11(5) (2008), pp. 543–545.

However, as Morse points out, these experiments do not prove that the folk psychological view of the person is incorrect. Even if non-conscious factors in the brain precede action, this does not mean that conscious intentionality is no longer necessary for action. Indeed, recent neuroscience studies have been focusing on the existence of a 'veto' power, finding that a person is able to cancel the motor action even after the readiness potential for action has arisen in the brain.[36] This suggests that readiness potential is not itself sufficient for action to occur, providing support for the role that conscious intentionality plays in voluntary action.

Libet's studies also suffer from external validity critiques. Morse challenges whether such trivial acts as flexing a finger, that involve no deliberation or rational motivation on the part of the participant, can be generalised to the concerns involved in criminal law contexts. The same critique of lack of external validity can also be posed to many other experiments that are cited by neurolaw studies in this area. One example commented on above investigated how exposure to happy or sad faces can affect the amount of fruit beverage that participants drink.[37] Again, it can be argued that the tested outcome of drinking fruit beverages is an example of a 'trivial' act which cannot easily be generalised to criminal actions.

In fact, psychology can be used to support the law's folk psychological view of the person. For instance, 'theory of mind' in psychology emphasises the importance of understanding human behaviour in terms of our mental states. Theory of mind refers to the ability that is developed by humans to understand that others have independent mental states and use this to explain and predict the behaviour of others.[38] Evidence demonstrates that children develop this skill from an early age.[39] Whilst there may be some cultural variation in the

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[36] For an overview, see K. Fifel, "Readiness Potential and Neuronal Determinism: New Insights on Libet Experiment," *The Journal of Neuroscience : The Official Journal of the Society for Neuroscience,* 38(4) (2018), pp. 784–786.
[37] Winkielman, Berridge, and Wilbarger, "Unconscious Affective Reactions."
[38] The theory has its origins in the works of D. Premack, and G. Woodruff, "Does the Chimpanzee Have a Theory of Mind?," *Behavioral and Brain Sciences,* 1(4) (1978), pp. 515–526; and H. Wimmer, and J. Perner, "Beliefs about Beliefs: Representation and Constraining Function of Wrong Beliefs in Young Children's Understanding of Deception," *Cognition,* 13(1) (1983), pp. 103–128.
[39] H. M. Wellman, D. Cross, and J. Watson, "Meta-Analysis of Theory-of-Mind Development: The Truth about False Belief," *Child Development,* 72(3) (2001), pp. 655–684.

chronological development, experiments support the conclusion that theory of mind itself is consistently developed across the world by infants, leading to its description as a "universal milestone of development".[40] Numerous studies also demonstrate that those who lack this ability often experience difficulties in everyday social life and relations, and that these theory of mind deficits are commonly observed in people suffering from mental disorders such as autism or schizophrenia.[41]

Morse comments that additional evidence for the folk psychological view can be found from an evolutionary psychology perspective. Having evolved as highly social creatures, to be successful in such a setting would require abilities to understand the intentions of others, partly in order to predict potentially harmful behaviour from others but also to create complex social groups that would inevitably need to be ordered by rules.[42]

These empirical findings from psychology, which indicate that mental states do have an important role in explaining and predicting behaviour, do not conclusively prove that the folk psychological view is correct. However, it is used here to highlight how different psychology and neuroscience studies exist to lend some support to both claims for or against the folk psychological view. By relying on perhaps inconclusive empirical evidence against the folk psychological view and not referring to other empirical evidence that supports it, the psycho-legal and neurolaw challenge again seems to suffer from potential pressure to engage with the Mainstream Proposal advocated in psycho-legal literature which focuses on using psychology to make a claim for legal reform.

4.2.3 Retributive Practices do not Work

A general problem that is sometimes identified by psycho-legal claims for reform to retributive practices is that these practices do not work and therefore are unjustified. Greene and Cohen for instance claim within their article that the US penal system is highly

[40] T. Callaghan et al., "Synchrony in the Onset of Mental-State Reasoning: Evidence from Five Cultures," *Psychological Science,* 16(5) (2005), pp. 378–384.
[41] S. Baron-Cohen, A. M. Leslie, and U. Frith, "Does the Autistic Child Have a 'Theory of Mind'?," *Cognition,* 21(1) (1985), pp. 37-46; C. Pedreño et al., "Exploring the Components of Advanced Theory of Mind in Autism Spectrum Disorder," *Journal of Autism and Developmental Disorders,* 47(8) (2017), pp. 2401–2409.
[42] Morse, "Lost in Translation?," p. 553.

counter-productive from a consequentialist perspective. In the conclusion of an article that attempts to rebut Morse's scepticism that neuroscience and psychology have no relevance to legal responsibility practices, the authors similarly rely on arguments of how conceptions of retribution in the criminal law system result in more crime and more unnecessary human suffering.[43] Indeed, the criticism that the US criminal system is not working as well as people would like has been identified as the main reason for why much neurolaw activity focuses on fields that relate to criminal law. Judges and others involved in the legal system are included as those who are "eager to find better approaches for dealing with mental health, drug, and youth offender problems that are implicated in such a large part of the criminal dockets".[44] Like the problem of wrongful convictions, these issues are often reported in the news. For instance, a recent news article comments that imprisonment is society's "retribution against the wrongdoer", describing it as a "lingering echo of medieval torture" which "makes rehabilitation harder and increases reoffending".[45]

However, unlike the problem of wrongful convictions which has been proven through real-life cases and DNA analysis to be strongly linked to false eyewitness identifications, it is not clear that the use of retributive practices in criminal justice systems are so strongly linked to inaccurate assumptions about the ability of humans to act with free will or about the folk psychological view of the person.

In fact, from a sociological perspective, David Garland tracks the changes in criminal justice practices and argues that the rise in retributive practices can be partially explained by the "collapse of faith" in rehabilitation, itself caused by wider economic and social developments.[46] He points to the late 1970s as the turning point and uses this to claim that it is the cultural adaptations to the underlying social forces of late modernity and the free market that have caused this shift in attitude towards criminal retributive punishment.[47] For

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[43] Davies, and Alces, "Neuroscience Changes More Than You Can Think."
[44] Goodenough and Tucker, "Law and Cognitive Neuroscience," p. 73.
[45] S. Jenkins, "Prisons do damage. Is the British government finally waking up to this?" *The Guardian,* April 2019, accessed at https://www.theguardian.com/commentisfree/2019/apr/06/prisons-damage-british-government-reform-short-sentences on the 30th April 2019.
[46] D. Garland, *The Culture of Control: Crime and Social Order in Contemporary Society*, (Oxford University Press, 2002).
[47] Supra, pp. 75-100.

instance, late modernity is demonstrated to lead to an increase in crime rate due to factors such as increased opportunity of crime (e.g. consumer boom leading to an increase in the number of circulating commodities), reduced situational controls (e.g. increasingly 'self-service' shops, dense neighbourhoods being replaced by anonymous city tower blocks, more empty houses during the day as both husband and wife are out working), an increase in the population "at risk" (e.g. teenage males – most prone to criminal behaviour- enjoying greater freedom as both parents would be at work), and reduced efficacy of social and self-controls (e.g. social space become more anonymous and less supervised, increased questioning of traditional authorities). Garland also considers what effect the rise in crime rates has on the reaction of state agencies, arguing that as the worsening of crime becomes a social problem, crime policy will predictably focus more on tackling the harmful effects, focusing on addressing the requirements of the victims, rather than intervening in ways to address the crime itself.[48] The shift is described as 'strategic', reflecting the fact that any claim from criminal justice agencies that they can address the root of criminality will now appear increasingly empty due to the actual, or perceptions of, rising levels of criminal activity.

Garland's example of the development of the US and UK criminal justice systems can be used to demonstrate that in real-life situations, it appears that what gives rise to the actual use of retributive practices in criminal legal systems is not necessarily the accuracy or inaccuracy of the 'foundational facts' that justify retributive practices but a range of wider considerations, such as the existence or perception of rising crime rates. While the case study of eyewitnesses showed that there is relatively strong evidence for the link between inaccurate eyewitness testimony and wrongful convictions, there seems to be a lack of the same evidence here to link inaccurate assumptions about the folk psychological view of the person to the use of criminal retributive practices.

4.2.4 Neuroscience will Change Moral Intuitions

Greene and Cohen's main claim is that neuroscience will change peoples' moral intuitions about responsibility and free will, leading them to oppose retributive practices. Since the

[48] Supra, p. 121.

law's legitimacy depends on its following moral intuitions, it is argued that this will therefore remove the law's legitimacy for engaging with retributive practices and its continued endorsement of these practices becomes unjustified. This claim faces both normative challenges as well as critiques regarding the reliability and validity of empirical evidence relied upon.

Firstly, it can be challenged whether Greene and Cohen are correct in arguing that the law's legitimacy depends on its reflecting the moral intuitions of society. As Pardo and Patterson comment, the intuitions of society do not answer the normative questions of whether criminal punishment is justified or how it should be distributed. Even if neuroscience leads to a change in retributive intuitions, this does not tell us whether following this change will lead to more just punishment decisions.[49] This is similar to the challenge Pardo and Patterson made to Churchland's claims that neuroscience, by revealing which areas of the brain are involved when a person has acted voluntarily, can help the law to identify when someone acted in control and therefore responsibly, regarding how this claim flattens the normative questions that are involved in attributions of responsibility.[50]

Secondly, the strength of the empirical data that their claim relies on can be challenged. Greene and Cohen make an assumption that belief in free will is linked to retributive intuitions. Their argument relies on the fact that the more that neuroscience leads us to disbelieve in free will, the less we will be inclined to engage in retributive intuitions. Several recent studies appear to support this assumption. One study has found that exposing participants to anti free-will arguments diminishes support for retributive punishment, as does exposing participants to neuroscience findings that imply a mechanistic basis for human action.[51] The link between belief in free will and support for retributive punishment is reinforced by another study which demonstrates that this link is not influenced by a country's institutional integrity, unlike the link between belief in free

[49] Pardo and Patterson, "Neuroscience, Normativity, and Retributivism," p. 144.
[50] Pardo, and Patterson, *Minds, Brains, and Law*, discussed in Ch 2.
[51] A. F. Shariff et al., "Free Will and Punishment: A Mechanistic View of Human Nature Reduces Retribution," *Psychological Science*, 25(8) (2014), pp. 1563–1570.

will and harsh attitudes towards unethical behaviour.[52] This study found that participants from countries with an experience of widespread corruption and lax governance decoupled their free will beliefs from their attitude towards unethical behaviour. This differed from residents of countries with average to high institutional integrity, where stronger belief in free will did predict stronger intolerance of unethical behaviour. The fact that the link between free will beliefs and support for criminal punishment is however unaffected by the institutional integrity of the country leads the authors to concluding that the link appears to be relatively strong and consistent.

However, others point to evidence which suggests that neuroscience will not have the effect on moral intuition that Greene and Cohen envision. Kolber for instance points out that similar neurolaw experiments in the past have not led to neurolaw revolutions, and that in fact as more neuroscience data in support of Greene and Cohen's position emerges, the US legal system seems to be becoming more retributivist in its practices.[53]

Others point to experimental evidence which indicates that people intuitively still hold people morally responsible and blameworthy when given concrete examples of wrongful actions, even in an explicitly deterministic world.[54] For instance, one study suggests that responsibility judgments are driven more by emotion than by abstract questions such as whether the fact that our behaviour has been determined means that we lack free will and therefore cannot be held responsible.[55] Participants were given either a hypothetical high-affect scenario which involved judging whether Bill who stalks and rapes a stranger is fully morally responsible for raping this stranger, or a hypothetical low-affect scenario which involved judging whether Mark who cheats on his taxes is fully morally responsible for doing so. Half of the participants in each scenario were told that the agent was in a determinist universe, and the other half were told that the agent was in an indeterminist universe. In an indeterminist universe, participants held that both Mark and Bill could be

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[52] N. D. Martin, D. Rigoni, and K. D. Vohs, "Free Will Beliefs Predict Attitudes toward Unethical Behavior and Criminal Punishment," *Proceedings of the National Academy of Sciences of the United States of America,* 114(28) (2017), pp. 7325–7330.
[53] Kolber, "Will There Be a Neurolaw Revolution?"
[54] A. Roskies, "Neuroscientific Challenges to Free Will and Responsibility," *Trends in Cognitive Sciences,* 10(9) (2006), pp. 419–423.
[55] S. Nichols, and J. Knobe, "Moral Responsibility and Determinism: The Cognitive Science of Folk Intuitions," *Noûs,* 41(4) (2007), pp. 663–685.

held responsible for their behaviour. The interesting result is what was found regarding the determinist universe. Here, a majority of the participants still held that Bill, the rapist, could be held morally responsible whilst it would not be possible to hold Mark, the tax cheater, responsible.

Another line of experimental data suggests that revealing that physical events in the brain cause behaviour, or that behaviour can be perfectly predicted using neural information, does not itself threaten people's intuitions and beliefs about free will. Instead, what affects belief in free will is whether or not someone has been manipulated.[56] Thus, participants who are told that neuroscientists can predict human behaviour 100% by detecting neural activity make no changes to their attributions of free will or responsibility. However, when participants are told that scientists can manipulate your brain to change behaviour, this does undermine attributions of free will and responsibility.

Others suggest that it is the perceived choice capacity of agents that matters in responsibility attributions. In one study, participants' belief in free will was decreased by exposing them to statements that stressed a determinist universe (e.g., "All behaviour is determined by brain activity, which in turn is determined by a combination of environmental and genetic factors").[57] The participants were shown a video of two individuals in a competitive game to increase their payment. In the first version of the video, one player would have the chance to steal money from the other player and choose how much money to take. In the second version, whether to steal anything and, if so, how much was determined by a dice roll rather than being chosen by the player. It was found that decreasing belief in free will had no effect on moral judgments of the participants. There was only a significant difference between the participants who were shown the first or second version. Those who were shown the first version attributed greater levels of blame to the player than those who were shown the second version.

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[56] E. Nahmias, J. Shepard, and S. Reuter, "It's OK If 'My Brain Made Me Do It': People's Intuitions about Free Will and Neuroscientific Prediction," *Cognition,* 133(2) (2014), pp. 502–516.
[57] A. E. Monroe, G. L. Brady, and B. F. Malle, "This Isn't the Free Will Worth Looking For: General Free Will Beliefs Do Not Influence Moral Judgments, Agent-Specific Choice Ascriptions Do," *Social Psychological and Personality Science,* 8(2) (2017), pp: 191–199.

While Greene and Cohen's central claim is that neuroscience will undermine people's retributivist intuitions and therefore the legitimacy of legal practices that reflect these, it is unclear how grave this 'problem' is taken to be. Interestingly, towards the end of their article, they suggest that the problem for the law's legitimacy can be set aside for other reasons that would justify the criminal law nevertheless endorsing counter-intuitive truths. They consider a counter-claim that perhaps it is humanly impossible to deny retributivist intuitions because these intuitions run too deep in human nature. They go on to argue that even if it is impossible for humans to dismiss these retributivist intuitions, criminal law should nevertheless be seen as one of the "special situations, analogous to those routinely encountered by 'rocket scientists', in which the counter-intuitive truth that we legitimately ignore most of the time can and should be acknowledged".[58] This argument alludes to Greene and Cohen's belief that neuroscience has indeed proven that individuals lack free will or are unable to act as the folk conception of the law requires. However, the discussions above indicate that these other main claims for how such neuroscience evidence can be used to argue that retributive practices are not justified are themselves subject to a number of challenges which need to be addressed.

4.3 Reliance on 'no-cost' Solutions

The psycho-legal and neurolaw studies in this area, similarly to the example of eyewitnesses, often stress that an alternative solution is possible for the law, so that it can remove the instance of injustice that is caused by inaccurate psychological assumptions without sacrificing the role or function played by that particular legal doctrine or practice. This demonstrates again that psycho-legal researchers in practice seem to align more with the Alternative Proposal than the Mainstream Proposal, because they show awareness that there are potential justifications which the law may have for not conceding to psychological reality.

Here, as Greene and Cohen's article demonstrates, the general claim made is that while the law should cease engaging with retributive practices, it can still carry out its role of maintaining order in society by engaging in consequentialist punishment. Thus, for Cashmore, what is important is that the law can continue to rationalise legal punishment

[58] Greene and Cohen, "For the Law, Neuroscience Changes Nothing and Everything," p. 1784.

even if retributive justifications are removed, by relying on ‘pragmatic’ claims that legal punishment is required to protect society, act as a deterrent, alleviate the pain of the victim, etc.[59]

However, again the argument that consequentialist punishment is a ‘no-cost’ solution for the law can be critiqued on empirical and normative grounds. This bears similarities to the example of eyewitnesses, where it was demonstrated that psycho-legal research faces criticism, for instance, that studies have not adequately shown that eyewitness practices can be changed without impacting on the frequency of correct identifications and that such claims therefore bypass the necessary due process versus crime control debate.

4.3.1 Punishment Decisions Motivated on Consequentialist Grounds

Taking the criticisms that the ‘no-cost’ solution lacks strong empirical support first, several psychology studies suggest that punishment decisions are motivated by retributivist concerns, rather than consequentialist concerns as the psycho-legal studies seem to claim. Such studies distinguish between the two motivations by emphasising the seriousness of the crime or the criminal intent of the offender to test for retributive motivations in decisions to punish the offender, versus the dangerousness of the wrongdoer or the deterrent effect of the punishment to test for consequentialist motivations. In one study, it was found that participants were more likely to impose punishment based on crime seriousness and not dangerousness, indicating that retributive concerns rather than consequentialist concerns such as prevention of future danger seem to motivate punishment.[60] Another study shows that participants continue to persist in punishment of a transgressor who is stricken by paralysis after the act, thus arguably posing no danger to society.[61]

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[59] Cashmore, “The Lucretian Swerve.”
[60] J. M. Darley, K. M. Carlsmith, and P. H. Robinson, “Incapacitation and Just Deserts as Motives for Punishment,” *Law and Human Behavior,* 24(6) (2000), pp. 659–683.
[61] K. M. Carlsmith, J. M. Darley, and P. H. Robinson, “Why Do We Punish? Deterrence and Just Deserts as Motives for Punishment,” *Journal of Personality and Social Psychology,* 83(2) (2002), pp. 284–299.

In a more recent study, it is noted that these previous studies potentially conflate retributive and consequentialist concerns or neglect other consequentialist motives that may be present.[62] Thus, the seriousness of the crime can be taken as a predictor for the future dangerousness of the offender. Although the transgressor themselves may be unable to carry out further violations, consequentialist justifications of general deterrence (deterring others from violations through the example of punishment) could still be present in punishment motivations. This study therefore used experiments which assessed whether criminal intent (taken as an indicator of retributive concern) influenced participants' punishment sentences even when the two main consequentialist concerns of offender dangerousness and publicity of punishment were minimised. It was found that criminal intent did indeed have this effect, again supporting the proposition that punishment decisions are motivated by retributive rather than consequentialist concerns. Interestingly, participants demonstrated difficulty in justifying the reasons for their punishment decisions. The authors conclude from this study that punishment is motivated largely by retributive concerns, and that these motivations may be better explained by fallible, heuristic processes rather than abstract moral principles.

These studies indicate that arguments from psycho-legal studies for legal reform may have downplayed the empirical assumptions involved in the progression from removing retributive punishment to endorsing consequentialist punishment, and thus in positioning consequentialist punishment as a 'no-cost' solution. Firstly, the last study suggests that intuitions to engage in retributive punishment may arise from heuristic processes and therefore be less likely to be removed by abstract principles, such as whether or not it is possible to hold people responsible in a deterministic world. This aligns with findings from the studies mentioned above which suggest that people's belief in a deterministic world will nevertheless have little effect on their responsibility attributions for concrete examples of wrongful behaviour. Secondly, these studies suggest that there exists a lack of motivation to punish others purely on consequentialist grounds.

[62] E. Aharoni, and A. J. Fridlund, "Punishment without Reason: Isolating Retribution in Lay Punishment of Criminal Offenders," *Psychology, Public Policy, and Law,* 18(4) (2012), pp. 599–625.

4.3.2 Punishment Decisions Justified on Consequentialist Grounds

Also generally minimised by those who propose consequentialist punishment as a suitable alternative are the normative questions involved in such a proposal. Greene and Cohen do consider these issues but seem to take a particular perspective on the debate that allows for their continued support of consequentialism as a 'no-cost' solution to removing retributive practices.

Greene and Cohen present the argument as follows.[63] They first note that consequentialism as a complete normative theory of punishment is controversial, making reference to the common challenge that without restricting punishment to those who 'deserve' it, consequentialist theories can be used to justify unfair punishment practices such as punishing an innocent or imposing overly harsh penalties, if this has a significant deterrent effect on others. Greene and Cohen then provide a standard consequentialist response to this which is that such concerns would not be realised in the real world. Thus, for them, "a legal system that deliberately convicted innocent people and/or secretly refrained from punishing guilty ones would require a kind of systematic deception that would lead inevitably to corruption and that could never survive in a free society".[64] The counter to this, according to Greene and Cohen, is that this response gets the right answers for the wrong reasons and fails to capture common-sense intuitions about legitimate punishment. These intuitions are better captured by retributivist accounts which include notions of 'desert'. At this point, Greene and Cohen go on to make their argument that these intuitions are incorrect anyway due to empirical findings that question the possibility of free will and therefore cause scepticism regarding the notion of desert.

What is observable through the way in which Greene and Cohen present this argument is the way in which it is assumed that the consequentialist response that unjust punishment practices would not occur in the real world is an effective rebuttal to those who argue that punishment cannot be purely justified on consequentialist grounds. For Greene and Cohen, the only counter to address towards consequentialist punishment is therefore the last one, that it fails to capture common-sense intuition, which can then be disproven by

[63] See Greene and Cohen, "For the Law, Neuroscience Changes Nothing and Everything," p. 1776
[64] Supra.

neuroscience. However, it is arguable that Greene and Cohen dismiss the first counter against consequentialist punishment too easily. Pardo and Patterson for instance rely on criminal-sentencing practices in the US to demonstrate that the imposition of harsh sentences for drug crimes, or of "three strike" laws under which prison sentences of "50 years to life" for shoplifting videotapes have been upheld, are justified not on retributive notions of desert but rather the consequentialist grounds of deterrence and incapacitation.[65]

Similar to Pardo and Patterson, Morse seems sceptical that the dangers of a purely consequentialist approach to legal punishment would definitely not be realised in the real world. He points to existing legal practices such as recidivist sentencing enhancement, which, in some ways similar to the three-strike rule, mandates that as a particular defendant accumulates more offences, increasingly severe sentences should be imposed each time. This practice is justified on consequentialist grounds of protecting public safety, even though commentators have condemned the practice as abusive of basic rights. For Morse then, punishment justified on both retributive and consequentialist grounds provides at least some limit on state overreach, which would otherwise be missing without the requirement for retributive justification.[66]

4.4 Reliance on Defining the Problem as Justification for Punishment

By positioning consequentialist punishment as the 'solution', there is also an assumption made by the psycho-legal argument for legal reform that the only problem in removing the folk psychological view of the person and therefore retributive legal practices is how the law can continue to justify its role in imposing legal punishment. However, as in the case of eyewitnesses where the problem was defined solely as how to prevent wrongful convictions, this is only a particular way to define the problem.

Morse for instance makes the argument that the folk psychological experience is so central to human life that there is no good reason to give it up.[67] The question for Morse then is not only whether punishment can still be justified on some other grounds, for instance

[65] Pardo and Patterson, "Neuroscience, Normativity, and Retributivism," pp. 133-135.
[66] Morse, "The Neuroscientific Non-Challenge," p. 355.
[67] Morse, "Lost in Translation?"; Morse, "Determinism and the Death of Folk Psychology."

consequentialism, but whether we would want to live in such a world that does not allow for reactions of anger or blame towards wrongful actions.

This argument is also taken up by Chris Kaposy.[68] Kaposy points out that there are many areas where "methods that reveal the truth are not always the best indicators of what we ought to believe".[69] For instance, in criminal law proceedings, there are rules which will not allow evidence from improper police searches to be used in court. Whilst this evidence might prove the truth of what happened, the rule is justified because of other values such as the control of police power. This reflects the arguments made in the previous chapter regarding eyewitness evidence and whether impermissibility of evidence should be based on unreliability of the evidence itself or the occurrence of police suggestibility during the acquisition of the evidence. Kaposy argues that in a similar way, even if our concepts of free will and personhood are not the scientific truth, they are "indispensable to our moral worldview, and thus highly valued".[70]

Recent psychology studies which look into the effects of disbelieving in free will seem to offer some support for such claims. Thus, exposing participants to a message that most scientists believe that free will is an illusion decreased their self-reported belief in free will and also led to them engaging more in cheating behaviour than participants who were not exposed to the anti-free will message.[71] An experiment which tests the effect disbelief in free will has on neural activity finds that weakening free will belief reduces the neural correlates of intentional action preparation, and this can decrease cognitive control mechanisms in cognitive tasks.[72]

Other studies provide evidence that belief in free will leads to positive outcomes. It has been found that belief in free will predicts better job performance, beyond the variance that is accounted for by locus of control (a measure which tests how much people believe they

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[68] C. Kaposy, "The Supposed Obligation to Change One's Beliefs About Ethics Because of Discoveries in Neuroscience," *AJOB Neuroscience,* 1(4) (2010), pp. 23–30.
[69] Supra, p. 27.
[70] Supra, p. 28.
[71] K. D. Vohs, and J. W. Schooler, "The Value of Believing in Free Will: Encouraging a Belief in Determinism Increases Cheating," *Psychological Science,* 19(1) (2008), pp. 49–54.
[72] D. Rigoni, and M. Brass, "From Intentions to Neurons: Social and Neural Consequences of Disbelieving in Free Will," *Topoi,* 33(1) (2014), pp. 5–12.

have control over the events that happen in their lives).[73] In another experiment, some participants were exposed to determinism sentences such as "Science has demonstrated that free will is an illusion" or "All behavior is determined by brain activity, which in turn is determined by a combination of environmental and genetic factors". Other participants were exposed to free will sentences such as ""I am able to override the genetic and environmental factors that sometimes influence my behavior," or "I have feelings of regret when I make bad decisions because I know that ultimately I am responsible for my actions." What was found was that participants exposed to the determinism statements were less likely to help others in an assortment of situations compared to participants who were exposed to the free will messages.[74]

Such studies are subject to similar external validity concerns. Thus, the above study which looked at the neural correlates of action preparation tested the effects of disbelief in free will on relatively small-scale controlled cognitive tasks such as responding to colours on a computer screen.[75] However, the main point is that the argument that consequentialist punishment is a suitable solution that the law can adopt does not address these issues. By defining the legal problem as how the law can continue to justify legal punishment, what is neglected is investigation into reasons why, beyond their psychological accuracy, the legal system may be founded on such psychological assumptions of free will and human agency.

4.5 Analysing Proposed Approaches under the topic of Criminal Retributive Practices

Overall, this case study has demonstrated that psychology and law are being brought together in very similar ways to how psycho-legal research on eyewitnesses combines the two disciplines. Both indicate that, in real-life research, the interaction between the disciplines focuses on using psychology to contribute to legal issues, in other words the Inter-Disciplinary Proposal, and that for both similar arguments and challenges against

[73] T. F. Stillman et al., "Personal Philosophy and Personnel Achievement: Belief in Free Will Predicts Better Job Performance," *Social Psychological and Personality Science,* 1(1) (2010), pp. 43–50.
[74] R. F. Baumeister, E. J. Masicampo, and C. N. DeWall, "Prosocial Benefits of Feeling Free: Disbelief in Free Will Increases Aggression and Reduces Helpfulness," *Personality and Social Psychology Bulletin,* 35(2) (2009), pp. 260–268.
[75] Rigoni and Brass, "From Intentions to Neurons."

these arguments are made. Here, psychology and neuroscience are used to contribute to the legal issue of criminal responsibility, by identifying inaccurate psychological assumptions that are made by the law in this area. These similarities in real-life research suggest that, unlike what is indicated by the Empirical Alternate Proposal, there may be relatively little difference from a methodological perspective of how psychology and law interact when psychology is contributing to empirical versus normative legal issues.

That psycho-legal research on criminal retributive practices does engage with an approach that reflects the Inter-Disciplinary Proposal is perhaps not surprising since the topic was chosen in order to analyse the claims made by the Empirical Alternate Proposal, which as identified in Chapter 1 is essentially a proposal for how to carry out research under the Inter-Disciplinary Proposal. The noteworthy aspect lies in the observation that for this topic, there seemed to be no other engagement from psycho-legal research into the Multi-Disciplinary and Trans-Disciplinary Proposals. There was no study that produced serial views of the psychological and then the legal perspective view of the topic. There was also no study that engaged with non-academic actors or sought to critique the existing disciplinary boundaries. Similar to the case study on eyewitnesses, there did seem to be some indication of researching criminal retributive practices as a real-world problem, but as discussed below, the psycho-legal research nevertheless remained very much within the scope of seeing this as a problem for the legal system and therefore fundamentally as psychology contributing to a legal issue.

The topic of criminal retributive practices will be analysed first in terms of the Inter-Disciplinary Proposal. It was identified in Chapter 1 that there is a difference between the Mainstream Proposal which argues that the law should concede to psychology if an inaccurate assumption is proven and the Alternate Proposal which addresses some of the criticisms that have been made to this and instead argues that the law can justify itself against conceding to psychology. Similar to the example of eyewitnesses, here psycho-legal research on criminal retributive practices indicates that in practice, there is an acknowledgement that demonstrating a psychological inaccuracy made by law does not itself establish an argument for legal reform. Thus, here, psycho-legal studies did not only attempt to show that the law has made inaccurate assumptions, but they engaged further with the argument that consequentialist punishment can be used by the law instead of

retributive punishment and therefore removing retributive punishment is ‘no-cost’. This indicates that here too psycho-legal research reflects an approach to combining law and psychology which is closer to the Alternate rather than the Mainstream Proposal.

Indeed, the potential dangers that exist in stating legal reform to be the end goal of psycho-legal research, as the Mainstream Proposal does, is again demonstrated in this area of research and perhaps to a greater extent. This could explain why normative psycho-legal claims are faced with greater scepticism than empirical claims in the general psycho-legal literature. The case study of criminal retributive practices mirrors the same tendencies and dangers arising from potential pressure to make an argument for legal reform which were observed for eyewitness research. One of these is to answer any normative or conceptual legal issues involved in a way which promotes psychology’s role in arguments for legal reform. For example, here psycho-legal and neurolaw scholars seem keen to argue that justifying legal punishment practices purely on consequentialist grounds, rather than retributive, is a suitable alternative solution. Another is to rely on empirical evidence which lacks external validity or is inconclusive. These dangers occurred to a greater extent for criminal retributive practices than for eyewitness research. Thus, for eyewitness research there was agreement from the legal system that inaccurate eyewitness testimony is indeed likely to lead to wrongful convictions, as proven by recent DNA evidence, and that wrongful convictions is an issue that is relevant for the law to consider. The areas of potential conflict between law and psychology mainly concerned what the legal solution to this issue should be. However, for criminal retributive practices, there is a lack of similar consensus that empirical evidence has proven an instance of injustice to exist in the first place and therefore that there is even a problem for the law that needs to be solved. The greater scepticism that exists for the criminal retributive practices claim seems to therefore result from differences in the substantive evidence which psychology provides rather than differences in the approaches through which law and psychology are being combined. In Chapter 3, there was relatively strong substantive evidence that inaccurate eyewitness evidence does lead to wrongful convictions. In this current chapter, there was relatively less conclusive evidence that the assumptions made by law are indeed inaccurate, as demonstrated by the challenges faced at each stage of the criminal retributive claim.

These tendencies, to define problems in particular ways that may conflict with the legal view, potentially indicate an interest in using psychology not only to test for assumptions which the law is making but in combining psychology and law in order to reveal and address what are considered to be separate instances of injustice, ones which may not align with how the legal system views the issue. For instance, authors that rely on an argument that the legal system should be more compassionate or that criminal retributive justice systems lead to unnecessary human suffering and therefore should be reformed. This is similar to the interest identified in the previous chapter, and arguably indicates that psycho-legal researchers are not only interested in engaging in the Inter-Disciplinary Proposal as promoted in the general psycho-legal literature. Instead, they may be interested in engaging with the Trans-Disciplinary Proposal outlined in Chapter 2. Under this approach, disciplines are brought together in order to better address real-life problems, such as instances of injustice, not necessarily to answer legal or psychological questions as would be done under the Inter-Disciplinary Proposal.

However, again, psycho-legal research in this area seem nevertheless to engage with these real-world problems only as issues for the law and legal systems. In other words, to focus mostly on the Inter-Disciplinary Proposal whereby psychology can be used to suggest legal reform. This is shown by the general emphasis by psycho-legal studies on legal reform as the solution which needs to be enacted and the neglect in psycho-legal studies in this area of the wider factors that may be at play if considering retributive punishment as a real-world problem. Mentioned above was the work of David Garland which looks at a broader range of factors and suggests that the use of criminal retributive practices may not be linked to psychologically inaccurate assumptions about the person which the law makes but instead a collapse of faith in rehabilitation due to wider economic developments. The main way in which to solve the ‘problem’ of criminal retributive practices may therefore not be to engage in legal reform but instead to engage in reform that can restore people’s faith and confidence in rehabilitation as an alternative punishment system.

While the main psycho-legal approach for this topic is to use psychology to contribute to legal issues, the topic itself of criminal retributive practices can be taken as an example of where it may be possible for psychology to learn from law, in other words the Psychological Perspective Proposal. For instance, using the legal context to investigate the

psychological factors involved in the relationship between rising crime rates and criminal retributive legal systems. Whilst psychology has focused as above on which out of retribution and consequentialist concerns are the motivating factor for punishment, insight into how retributive and consequentialist justifications often work together in real-life legal systems to justify punishment suggests that psychology could also consider how these two concerns interact in decisions to punish. Another line of enquiry could be whether the psychological factors involved in the decision to punish someone are the same factors that are involved in decisions to accept the justifications that the legal system provides to engage in punishment. These examples demonstrate how it may be possible for the Inter-Disciplinary Proposal to move in the direction of law contributing to psychology.

Since criminal retributive practices is an example of a normative psycho-legal claim, it is of interest that it nevertheless demonstrates a very similar approach to psycho-legal research to that demonstrated by eyewitness research; using psychology to expose an inaccurate psychological assumption which leads to an instance of injustice and emphasising how incorporating psychological accuracies into the legal system is at 'no-cost'. Indeed, many of the problems which psycho-legal sceptics cite to challenge the ability of psychology to answer legal normative issues are demonstrated to exist for psycho-legal research which focuses on empirical legal questions. As seen in the previous chapter, these included the same challenges of whether the psychological fact is addressing the correct legal issue and whether there are justifications against incorporating psychological accuracy or reality into the legal system. This opposes the Empirical Alternate Proposal discussed in Chapter 1 which indicates that different problems exist for normative or conceptual and empirical psycho-legal claims. An analysis of eyewitnesses and criminal retributive practices therefore suggests that the type of legal issue which is being addressed by psychology does not impact on the ways in which it is possible that law and psychology can interact.

4.5 Conclusion

The example case study of psycho-legal research on criminal retributive practices provides further support for the indications that were reached following the case study of eyewitnesses in Chapter 3. These are that in reality, psycho-legal research does seem to

focus on an approach that reflects the Inter-Disciplinary Proposal. Within this, there is acknowledgement that potential cost-benefit issues are involved when claims are made that psychological knowledge should be incorporated into legal issues. This indicates again that real-life research endorses the Alternate over the Mainstream Proposal with regard to inter-disciplinary research. The case study further emphasises that problems do exist in the Mainstream Proposal which argues that the end goal of psycho-legal research should be legal reform. The issue is the creation of potential pressure which leads to research defining legal issues in a particular way so that psychology has a more significant role in arguments for legal reform, and potentially overreaching with empirical data in order to support arguments for legal reform.

This chapter has also demonstrated the similarities in the approaches taken between psycho-legal research on eyewitnesses and criminal retributive practices, thus indicating that differences in the approaches to combining law and psychology do not depend on the type of legal issue which is being considered, in contrast to the position of the Empirical Alternate Proposal.

Accepting that psycho-legal research does not always lead to legal reform may seem to carve out a smaller role for psychology in psycho-legal research. Instead, as demonstrated by this chapter, both psychology's and law's roles can be extended through an openness to other potential end goals that are reflected in the alternative proposals to psycho-legal research identified in Chapters 1 and 2. Indeed, similarly to the eyewitness example, there may be some indication that researchers here are not only interested in the Inter-Disciplinary Proposal from the general psycho-legal literature, but also in the Trans-Disciplinary Proposal which encourages disciplines to be brought together to solve real-world problems that exist outside of current disciplinary frameworks.

These case studies have provided valuable insight into how psycho-legal research is carried out in practice, and the extent to which the approaches used in real-life reflect or contrast with the approaches to psycho-legal study that are proposed in the literature. The next chapter will draw on the literature concerning the methodology of social sciences. This will be done in order to provide reasons for why the indications from real-life psycho-legal research concerning the relationship between law and psychology are on the whole correct

and thus provide some definitive answers to the questions that have been thus far identified in Chapters 1 and 2 regarding ‘Why’, ‘How’, and ‘To What Ends’ law and psychology can be brought together.

Chapter Five – The Methodology of Social Sciences and Disciplinary Relevance

This chapter will highlight how the questions identified regarding the relationship between law and psychology have in fact already been considered by the wider debate regarding the role of social science and the fact-value distinction. This thesis will be the first to relate this debate to the discussion concerning the methodology of psycho-legal research. Building on arguments originally made by Max Weber and by later interpretations of the issues he raised, this chapter will demonstrate that the indications from the case studies analysed in Chapters 3 and 4 are correct and further will provide reasons for why this is so. It will explain why and how law can justify itself against correcting psychological inaccuracies, why there is relatively little difference between empirical and normative or conceptual psycho-legal claims in terms of how psychology can contribute to legal issues, why there are problems in promoting legal reform as an end goal of research, and provide reasons for why the Trans-Disciplinary and Multi-Disciplinary Proposals are important to consider.

5.1 The Fact-Value Distinction and its Methodological Implications

The distinction between fact and value concerns a distinction that is made between 'factual' descriptive statements, which concern what 'is', and 'value' prescriptive statements, which concern what 'ought to be'. What is interesting about this divide and relevant to psycho-legal research is the way it has influenced thought about the appropriate role of science, its ability to remain objective and unbiased, and the relation of empirical science to normative statements.

One of the main strands of thought that the fact-value distinction has led to is that there is a separation between fact and value such that only 'factual', 'is', statements are capable of being 'objective'. By contrast, 'value', 'ought' statements are 'subjective' and outside the realm of 'objective' scientific study. What have been taken as implications from this distinction is that 'factual' statements are, due to their 'objectivity', unbiased and appropriate for empirical scientific study while 'value' statements are not. While the linking of 'factual' statements with 'objectivity' and 'value' statements with 'subjectivity'

has been successfully broken down as will be discussed below, it will be argued that elements of these implications are nevertheless reflected in some of the current psycho-legal proposals and thus need to be addressed.[1]

It is therefore from this angle that the writings of Max Weber on the 'subjectivity' of factual statements and its implications for social science will be analysed, in order to make the case that while successful in the unlinking of 'factual' statements with 'objectivity', more work can be done with regard to what this means for the methodology of social science from an ethical perspective. This will lead to important implications for psycho-legal research as will be discussed in the second section of this chapter. Indeed, this understanding of Weber's arguments are reflected in the ways in which his conclusions have been interpreted and challenged. While his arguments that 'factual' statements are 'subjective' in similar ways to 'value' statements have been accepted, it is his conclusions of what this means for the ability of research to remain value neutral and unbiased and his emphasis that 'value' disagreements are incapable of rational resolution that have been critiqued.

There are two main conclusions that Weber argued for regarding the relationship between fact and value. First, that fact is not able to provide answers to 'evaluative' questions.[2] In his words, it is "absolutely indisputable" that science cannot give an answer to the "only question of importance for us: 'What shall we do? How shall we live'?"[3] For Weber, "it can never be the task of an empirical science to provide binding norms and ideals from

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[1] On the history of the debate in particular in relation to the methodology of social sciences, see H. Putnam, *The Collapse of the Fact/Value Dichotomy: And Other Essays*, (Harvard University Press, 2002); P. S. Gorski, "Beyond the Fact/Value Distinction: Ethical Naturalism and the Social Sciences", *Society*, 50(6) (2013), pp. 543–553; J. Jacobs, "The Fact/Value Distinction and the Social Sciences", *Society*, 50(6) (2013), pp. 560–569; A. Sayer, "Values within Reason", *Canadian Review of Sociology/Revue Canadienne de Sociologie*, 54(4) (2017), pp. 468–475.

[2] M. Weber, *The Methodology of the Social Sciences*, (London; New York: Free Press, 1949); M. Weber, and S. Kalberg, *Max Weber: Readings and Commentary on Modernity*, vol. 3, (Oxford; Malden, MA: Blackwell, 2005); M. Weber et al., *From Max Weber: Essays in Sociology*, (London: Routledge, 2009). For commentary see M. Betta, and R. Swedberg, "Values on Paper, in the Head, and in Action: On Max Weber and Value Freedom Today", *Canadian Review of Sociology/Revue Canadienne de Sociologie*, 54(4) (2017), pp. 445–455; S. Eliaeson et al., "Max Weber's Methodology: An Ideal-type", *Journal of the History of the Behavioral Sciences*, 36(3) (2000), pp. 241–263; S. P. Turner, and R. A. Factor, *Max Weber and the Dispute over Reason and Value: A Study in Philosophy, Ethics, and Politics*, (London: Routledge & Kegan Paul, 1984).

[3] Cited by J. Derman, *Max Weber in Politics and Social Thought: From Charisma to Canonization*, vol. no. 102, (Cambridge University Press, 2012), p. 56.

which directives for immediate practical activity can be derived".[4] Second, that scholars should restrict themselves to making 'factual' statements, and make sure to keep these separate from 'evaluative' statements.[5]

A closer analysis of the evidence and reasons which Weber provided for these conclusions demonstrates that they should not be taken as emphasising the fact-value divide and the 'subjectivity' of 'value' statements, but instead as statements for what the role of social science and social science researchers should be due to the fact that the divide between fact and value statements does not turn on the former being objective and the latter subjective.

Thus, Weber's insistence that 'factual' statements should be kept separate from 'evaluative' was based on his argument that there are too many different and conflicting viewpoints or value orders that exist in the world, and no rational way to choose which one is 'correct'.[6] Questions such as

> the extent to which an end should sanction unavoidable means, or the extent to which undesired repercussions should be taken into consideration, or how conflicts between several concretely conflicting ends are to be arbitrated, are entirely matters of choice or compromise. There is no (rational or empirical) scientific procedure of any kind whatsoever which can provide us with a decision here. The social sciences, which are strictly empirical sciences, are the least fitted to presume to save the individual the difficulty of making a choice, and they should therefore not create the impression that they can do so.[7]

One of Weber's main concerns was therefore to emphasise the "clash of political ethics and the ethics of religious salvation; the values of aesthetic beauty, erotic love, scholarly truth, moral goodness, and economic profitability",[8] and thus the inability of empirical

[4] Weber, *The Methodology of the Social Sciences*, p. 52.
[5] See for instance Weber, *The Methodology of the Social Sciences*, p. 60.
[6] See Derman, *Max Weber in Politics and Social Thought*, p. 56.
[7] Weber, *The Methodology of the Social Sciences*, p. 19.
[8] Derman, *Max Weber in Politics and Social Thought*, p. 57.

science to provide directives for how life should be lived. This clash between such values leads Weber to describe them as warring gods that exist in a value polytheism.[9]

This conclusion has been challenged, as will be discussed in greater detail below. However, Weber's initial observations regarding the existence of different viewpoints and the subjectivity of factual statements has generally been accepted, as well as the acknowledgement that this does lead to methodological implications that extend to questions regarding the significance of disciplinary knowledge, the multiple perspectives that can be taken to the same topic, and the 'adequacy' of a scientific explanation.

Indeed, Weber discusses the issue from the perspective of disciplines, arguing that each discipline's 'worth' relies on general presuppositions which cannot be proven by the discipline itself. An example he provides is that of medicine, which relies on a general presupposition that life should be maintained, and human suffering should be reduced to the greatest degree possible. As such, the knowledge that is produced by medicine as a discipline has meaning only for those who agree with this presupposition, i.e., those who share this common viewpoint. However, Weber argues that this does not answer questions such as whether life is worth living and when, i.e., questions which do not necessarily share medicine's presuppositions.[10]

It is the existence of these differing perspectives that Weber takes as supporting evidence for his more general statement that there can be no "absolutely objective scientific analysis of…'social phenomena' independent of special and 'one-sided' viewpoints according to which expressly or tacitly, consciously or unconsciously they are selected, analyzed and organized for expository purposes".[11] Thus, "all knowledge of cultural reality…is always knowledge from particular points of view".[12]

For this reason, 'objectivity' within social sciences for Weber does not exist at the stage of selecting, analysing or organising data, and is therefore limited. Nevertheless, social sciences can retain a type of contingent objectivity. Thus, Weber maintains that social

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[9] Weber et al., *From Max Weber: Essays in Sociology*.
[10] Weber et al., *From Max Weber: Essays in Sociology*, pp. 138-145.
[11] Weber, *The Methodology of the Social Sciences*, p. 72.
[12] Weber, *The Methodology of the Social Sciences*, p. 81.

science can provide objective answers, but only "where it is a question of a means adequate to the realization of an absolutely unambiguously given end".[13] He articulates the functions of social science as: Science can help to analyse the means used to achieve a given end, can provide information on the consequences and side-effects, and can offer insight into the significance of the desired object. Science can also judge the desired ends and the ideals which underlie them. It can aid in self-clarification, by assisting us in becoming aware of the ultimate standards of value which we do not make explicit to ourselves.[14]

What this means is that the "problems" of social science are "selected by the value-relevance of the phenomena treated", and have no meaning outside of this.[15] The significance or "meaningfulness" of an empirical study therefore is not to be found within the data or empirical findings itself but rather in the presuppositions which exist in deeming the data selected as significant and as a worthy object of investigation.[16] In Weber's words,

> The *objective* validity of all empirical knowledge rests exclusively upon the ordering of the given reality according to categories which are *subjective* in a specific sense, namely, in that they present the *presuppositions* of our knowledge and are based on the presupposition of the *value* of those *truths* which empirical knowledge alone is able to give us. The means available to our science offer nothing to those persons to whom this truth is of no value.[17]

With the 'fact-value' problem defined as one of conflicting viewpoints with no rational means to choose between them, the 'solution' which Weber therefore provided to the problem of what role science can play is one which recognises the contingent role which scientific fact contributes within common viewpoints, while challenging its ability to

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[13] Weber, *The Methodology of the Social Sciences*, p. 26.
[14] See Weber, and Kalberg, *Max Weber: Readings and Commentary on Modernity*, pp. 335-336; Weber, *The Methodology of the Social Sciences*, pp. 52-60.
[15] Weber, *The Methodology of the Social Sciences*, p. 21.
[16] Thus, "We cannot discover, however, what is meaningful to us by means of a 'presuppositionless' investigation of empirical data. Rather perception of its meaningfulness to us is the presupposition of its becoming an *object* of investigation." (Weber, *The Methodology of the Social Sciences*, p. 77.)
[17] Weber, *The Methodology of the Social Sciences*, p. 77.

answer ‘evaluative’ questions which take place outside of these viewpoints. This has also been described as the production of ‘intersubjective’ knowledge.[18]

On the whole, it has generally been accepted that there are multiple perspectives that can be taken to any topic and that this does lead to the type of ‘subjectivity’ of ‘factual’ statements which Weber emphasised.[19] This indeed can be given further support by observations that have been made since.

Recently, Martyn Hammersley’s endorsement of the methodological implications that follow from Weber’s insights draws on perhaps more nuanced examples of the existence of different perspectives than those which Weber originally relied on.[20] He cites the work of Alan Garfinkel in *Forms of Explanation* to emphasise the argument that the ‘gap’ between fact and value exists at the stages of framing a research question and of deciding what would count as an adequate answer to this question.[21] An example provided is that of a study which seeks to provide a causal explanation of unemployment. It is possible that an explanation might be provided of the difference that exists between the attributes that employed people have over the unemployed, for instance perhaps the achievement of academic qualifications. It might thus be stated that the level of academic achievement ‘explains’ unemployment. Garfinkel points out that another explanation may instead focus on explaining why unemployment exists in the first place, i.e., rather than explaining why certain people are employed rather than others, an explanation is sought for why anyone is unemployed. It might thus be stated that the lack of government intervention has led to a decrease in available jobs and this therefore ‘explains’ unemployment. While both explanations may be empirically accurate, which one is seen as an adequate explanation or

[18] M. Ekström, "Causal Explanation of Social Action: The Contribution of Max Weber and of Critical Realism to a Generative View of Causal Explanation in Social Science", *Acta Sociologica*, 35(2) (1992), pp. 107–122; Eliaeson et al., "Max Weber’s Methodology".
[19] On this see Ekström, "Causal Explanation of Social Action"; Gorski, "Beyond the Fact/Value Distinction"; M. Hammersley, *The Limits of Social Science: Causal Explanation and Value Relevance*, (Los Angeles: SAGE, 2016).
[20] M. Hammersley, *The Limits of Social Science*.
[21] A. Garfinkel, *Forms of Explanation: Rethinking the Questions in Social Theory*, (Yale University Press, 1981).

as an explanation that is relevant to the question of what should be done regarding unemployment, will depend on presupposed value frameworks.[22]

As Hammersley remarks, multiple perspectives to the same topic therefore do exist. Indeed, this point has also been observed from within the legal discipline where it has been emphasised that multiple approaches can be taken to 'the law', and that is it important to recognise this. Hart's distinction between the internal and external perspective is one of the more famous examples of this issue.[23] He emphasised that with regard to social practices such as the law, it is possible to identify as least two different ways in which such practices can be described or understood. One of these ways he defined as the 'external' perspective, and the other as the 'internal'. Broadly, this distinction draws inspiration from a similar distinction that exists within the social sciences and relates to the difference between explaining human behaviour in terms of external observations of its statistical frequency and observed consequences, or in terms of the meaning which the human actor gives to their behaviour.[24] An example which Hart uses is the difference between describing a traffic light system as one in which drivers tend to stop when the lights turn red (an external description that focuses on describing externally observed behaviour), as opposed to a description which takes account of the fact that the light turning red is perceived as a reason by the driver to stop (an internal description which focuses on the human actor's meaning behind their behaviour).

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[22] While Garfinkel proposes that explanations can be argued to be 'superior' over other explanations, this is through two ways; either an argument that one explanation proceeds from values which are superior, or that one explanation serves purposes which are more appropriate to the context (p. 159). This again points us to Weber's conclusions regarding the challenge of choosing which perspective is superior, or which explanation should be seen as appropriate. The challenge regarding the relation between perspectives will be discussed later in this chapter.

[23] H. L. A. Hart, *The Concept of Law*, 3rd edn., (Oxford University Press, 2012), pp. 88-91.

[24] It is thus noted that Hart cites Peter Winch's writings on the 'internal' perspective in social sciences, *The Idea of a Social Science and Its Relation to Philosophy*, (London: Routledge & Kegan Paul, 1958). This is a simplified version of the internal/external divide - see B. Z. Tamanaha, "A Socio-Legal Methodology for the Internal/External Distinction: Jurisprudential Implications", *Fordham Law Review*, 75(3) (2006), pp. 1255-1274; B. Z. Tamanaha, "The Internal/External Distinction and the Notion of a 'Practice' in Legal Theory and Sociolegal Studies", *Law & Society Review*, 30(1) (1996), pp. 163–204; N. MacCormick, *H.L.A. Hart*, 2nd ed., (Stanford, Calif: Stanford Law, 2008), pp. 46-59; J. Raz, *The Authority of Law: Essays on Law and Morality*, (Oxford: Clarendon, 1979), pp. 155-157, and the relevant further observations on this divide will be discussed later.

While Hart introduced the importance of the 'internal' perspective mainly in order to critique theories of law which focus purely on providing an 'external' understanding of law, this distinction again serves as an example of the more general theme that the selection and analyses of fact rests on presuppositions of what is important to explain and is therefore only knowledge from a particular point of view. In these terms, Hart's critique of purely external understandings of law, that focus on explaining statistical regularities of behaviour and not what this behaviour means from the participant's point of view, is that it is only knowledge about law from a particular point of view, and necessarily misses out on the facts, or on certain understandings of what these facts mean, that are significant and relevant if law is to be understood from an internal perspective.

As has been commented, methodologically, both perspectives are valid ones to take by a researcher.[25] The importance of being aware of the different perspectives is that, for one, when it comes to explaining human behaviour as opposed to explanations in the natural sciences, it is likely that a purely external description will necessarily exclude facts which are present and available to be described regarding the meaning of human behaviour. In Weber's terminology, an external understanding of law is only an understanding from a particular perspective and thus cannot claim to be the only or 'correct' understanding of law.

Analysing Weber's writings and how he came to his conclusions, it can be seen that at its basis there appear to be two separate, although related, concerns which Weber was seeking to solve. Firstly, a concern with the false illusion that factual statements are objective and the dangers that can follow from this if this illusion is assumed by researchers. From this concern follow Weber's conclusions that science's objectivity is limited in the sense that it only has meaning within the value frameworks and perspectives which have been chosen by the researcher. Its role is thus to provide answers within particular perspectives e.g., the means to achieve a particular end, the consequences and side-effects of using these means, clarifying presuppositions that are made by particular perspectives. Secondly, a concern over how to 'solve' value conflict due to the multiple perspectives that exist with regard to

[25] Tamanaha, "A Socio-Legal Methodology"; C. L. Barzun, "Inside-Out: Beyond the Internal/External Distinction in Legal Scholarship", *Virginia Law Review,* 101(5) (2015), pp. 1203–1288; MacCormick, *H.L.A. Hart*, pp. 51-52.

what is valuable. From this concern follows Weber's conclusions that 'value' conflicts cannot be rationally resolved and are simply 'choices' that must be made, and for which empirical sciences hold no conclusive answer.

It is with this in mind that the main challenges and criticisms which have been made towards Weber can be addressed. This will be done to emphasise two points. Firstly, that while Weber emphasised particular problems which arise from an assumption that factual statements are objective, he also underemphasised other problems, leaving his position open to the criticism that it does not adequately account for the ethical implications of research. It will be argued that his articulation of the roles of social science go some way towards answering these critiques, but that they also indicate that, once it is acknowledged that research reflects presuppositions that are made by the researcher, in order to pursue research ethically and to maintain the position of researchers as providers of unbiased knowledge, a solution has to be reached not only by the individual researcher but at the research community level. Secondly, that he overemphasised the concern over how to 'solve' value conflict, leaving him open to the criticism that there are rational ways to solve such conflicts. Again, it will be argued that the roles he specified for social science provide some answers but that the criticism also validly indicates the requirement to carry out research not only within individual perspectives but also on how perspectives relate to each other. As will be discussed below, these points have implications for the way in which the relationship between law and psychology should be understood from a methodological perspective.

5.1.1 Research Bias as a Community Issue

Weber's articulation of the roles of social science has been described as helping researchers acquire better knowledge about the topic they are researching. Michela Betta and Richard Swedberg note that it is by using science, as Weber encouraged, to clarify presuppositions made, to look not only into the means to achieve particular ends but also what the side effects and consequences may be and whether this will affect the 'ends' that

are desired, that the researcher will acquire better, more nuanced, knowledge about the topic they are researching.[26]

However, it is argued that a better interpretation of Weber's position might be to see his proposals of what science's roles are as ways in which researchers can not only acquire 'better' knowledge but also knowledge that is protected against the dangers that arise once it is acknowledged that 'factual' statements cannot claim 'objectivity'. It is in this way that included in Weber's writings, although underemphasised, can be found the beginnings of an answer to the critiques that have been raised against him.

While accepted that 'factual' statements are not 'objective', and that therefore the meaning of social science is limited by the presuppositions that are made by the researcher, one of the main debates as will be discussed below that this has given rise to is how then to ensure the 'value neutrality' of research. The problem identified is that statements made by research, if they cease to be objective and are instead subject to the presuppositions that have been made by the researcher in their choice of topic, level of analysis, and type of explanation, will end up both telling us more about the researcher themselves than the actual topic of investigation and will always have 'ethical colouring' or ethical implications.[27]

The concept of 'value neutrality', as used in this thesis, will follow the current literature's usage of the term as a more modern interpretation of the issues which Weber first highlighted. 'Value' corresponds to the particular value judgment that is made by researchers when they engage in research. Specifically, a value judgment of what is important and significant to be researched. This includes disciplinary value judgments, for instance the example of medicine discussed above. More broadly, it refers to the value judgments that are made by any research that is carried out and therefore 'new' perspectives that may be presupposed by researchers but are not yet present in existing disciplines. An example of this will be discussed in Chapter 7 where research that presupposes the 'new' value of researching real-world problems will be analysed.

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[26] Betta and Swedberg, "Values on Paper".
[27] See for instance Putnam, *The Collapse of the Fact/Value Dichotomy*, p. 63; F. Parkin, *Max Weber*, (London; New York; Chichester; E. Horwood, 1982), pp. 30-33.

‘Neutrality’ corresponds to the problem of how to nevertheless ensure that research remains unbiased, considering that research is carried out under such presupposed value judgments.

Sharon Gewirtz and Alan Cribb provide an example of the value neutrality issue which can be used to expand on the type of ethical implications which arise.[28] They consider the research that has been undertaken around inequalities in the attainment of students in schools. They note that the research has singled out black boys as an issue of special concern, resulting in studies that suggest the solution to be eradicating racist policies in schools or helping students to change their attitudes and behaviours. As Gewirtz and Cribb highlight, it is difficult to say how much can be explained by school-level effects and how much by peer-level effects, and how these effects may interact with each other. Due to this, the researcher must decide which aspects to emphasise, the same way in which Weber emphasised that any description or explanation is subject to perspectives presupposed by the researcher. Importantly, whichever emphasis is chosen will have implications for the way in which responsibility for the ‘problem’ is constructed. This is the same for Garfinkel’s example discussed above; the element which is decided by the researcher to ‘explain’ unemployment has implications on who may be considered to be responsible for unemployment – the individual for not having the correct qualifications, or the state for not providing a job that is suitable for the individual’s capabilities.

At another level, Gewirtz and Cribb point to the fact that identifying the under-attainment of black boys as the issue of significance for research has ethical and political implications too. By focusing on the under-attainment of black boys as the phenomenon of interest, what is potentially ignored is the existence of other, perhaps underlying, problems such as the effect of class differences on educational attainment.

This issue of the ethical implications that necessarily follow from research has appeared as both one of the main challenges that have been made towards Weber and one of the main outstanding issues with regard to the debate over the ability of researchers to remain value

[28] S. Gewirtz, and A. Cribb, "What to Do about Values in Social Research: The Case for Ethical Reflexivity in the Sociology of Education", *British Journal of Sociology of Education,* 27(2) (2006), pp. 141–155.

neutral and unbiased.[29] Evaluating the solutions to this problem which have been provided, it will be seen that similar requirements are argued for; that researchers must be more open-minded, flexible, democratic, and more ethically reflexive and critical. While this will be agreed with, it will also be emphasised that Weber himself did seem to be aware of this through his articulation of the suitable roles of social science and social science researchers. However, that these arguments continue to be made indicate that Weber's answer to the problem may not have been sufficient. Again, this will be agreed with and it will be argued that it is insufficient because it focuses the responsibility at the individual and not community level.

While Hilary Putnam in his challenge of the fact-value divide as a divide between 'objective' and 'subjective' knowledge, notes Weber's similar concern that they are in certain ways interdependent, he makes the argument that Weber did not sufficiently acknowledge the 'ethical colouring' that is therefore present in all research. Putnam identifies the illusion of 'factual' statements as 'objective' and 'evaluative' statements as 'subjective' as a problem because it leads to the danger of 'thought-stopping'. This is because it leads both to the notion that 'factual' statements are simply 'true' and not capable of being biased or holding ethical implications and that 'evaluative' statements are not capable of being rationally discussed.[30] His solution is to recognise that our statements, both factual and evaluative, can claim objective validity and still be 'subjective', but that rather than seeing this as a necessary problem, we should not give up on the possibility of rational discussion but "investigate and discuss and try things out cooperatively democratically; and above all fallibilistically".[31] Echoing the notion of 'democratic' research as a solution, Axel Van Den Berg argues that what value neutrality means is that we are not a priori biased as researchers to produce the outcomes favoured by one group

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[29] For instance see A. W. Rawls, "An Essay on the Intrinsic Relationship between Social Facts and Moral Questions", *Canadian Review of Sociology/Revue Canadienne de Sociologie,* 54(4) (2017), pp. 392–404; C. Powell, "Presentation: A Pragmatic Approach to Understanding Sociologists' Differing Views on Value-Neutrality", *Canadian Review of Sociology/Revue Canadienne de Sociologie,* 55(2) (2018), pp. 298–301; P. S. Gorski, "From Sinks to Webs: Critical Social Science after the Fact-Value Distinction", *Canadian Review of Sociology/Revue Canadienne de Sociologie,* 54(4) (2017), pp. 423–444, p. 441.

[30] Putnam's response to the notion that evaluative judgements cannot be 'rationally' discussed will be considered further below when the challenge towards Weber's argument that there is no 'rational' solution to value conflict will be evaluated.

[31] Putnam, *The Collapse of the Fact/Value Dichotomy*, p. 45.

rather than another, and that in order to do this, all parties to the dispute in question have to have their standpoints fairly represented.[32]

For Gewirtz and Cribb, a call is made for 'ethical reflexivity'.[33] This would include a responsibility on researchers to acknowledge the ethical implications of their work. They propose that ethical reflexivity should encompass:

> First, being explicit, as far as is possible, about the value assumptions and evaluative judgements that inform or are embedded in every stage of our research. Second, being prepared to offer a defence of our assumptions and judgements to the extent that either they might not be shared by others or, conversely, that they are not sufficiently problematised by others. Third, acknowledging, and where possible responding to, tensions between the various values that are embedded in our research. Fourth, taking seriously the practical judgements and dilemmas of the people we are researching. Finally, taking responsibility for the political and ethical implications of our research.[34]

While they note that the first three elements do follow from Weber's writings, they stress that the fourth and fifth elements are additions.

Philip Gorski, in his elaboration of the fact-value divide and how it is significant for social science research, argues that one implication of the unlinking of 'factual' statements with 'objectivity' which seems to have escaped Weber is that the production of knowledge will be influenced by the composition of the academic research community.[35] In other words, it will have the same problem of ethical colouring that was described by Gewirtz and Cribb's example. He proposes the solution of a 'critical social science' which would critique and systematically analyse the relationship between normative and descriptive claims. He

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[32] A. den Berg, "Of Babies and Bath Water", *Canadian Review of Sociology/Revue Canadienne de Sociologie,* 55(2) (2018), pp. 319–321.
[33] Gewirtz and Cribb, "What to Do about Values in Social Research".
[34] Gewirtz and Cribb, pp. 147-8.
[35] Gorski, "Beyond the Fact/Value Distinction".

emphasises that what is needed is “not dispassion but immersion, not passivity but intervention, not objectivity but open mindedness”.[36]

Emma Whelan in turn terms the solution as engaging in ‘value-interrogating sociology’.[37] For her, the importance of doing research includes scrutinising our own values and presuppositions as individual researchers. She emphasises similar concerns to those of Weber in using sociology to supply evidence for preconceived policy agendas, and the requirement for sociology to be ‘useful’ as if it can be known beforehand which research will become useful and in which ways.

It is argued that many of the concerns raised by the fact that ethical implications are necessarily present in all research in actual fact mirror the concerns reflected in Weber’s articulation of what the appropriate roles of social science and social scientists are. Thus, he too emphasised that science can clarify what is involved in presuppositions that are made and can investigate not only the means required to pursue particular ends but also the side-effects and consequences that arise from undertaking these means and how this impacts on decisions to pursue these particular ends. This requires a certain amount of open-mindedness and flexibility on the part of the researcher, similar to the type which is argued for by the above authors, who highlight the need to question our own presuppositions as researchers and to maintain a flexible approach which does not assume that particular ends should be pursued without clarifying the presuppositions made and the potential side-effects that might be caused. Indeed, while Weber’s insistence that researchers should not make value judgements can be read as following from his conclusion that there is no ‘rational’ answer to value conflict, it can and has been interpreted as Weber’s awareness that if researchers do make value judgements, or enter research with the mind to provide information in support of particular outcomes, they are less likely to engage in the flexibility and open-mindedness that is required to produce unbiased knowledge.[38]

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[36] Gorski, "From Sinks to Webs", p. 443.
[37] E. Whelan, "In Praise of Value-Interrogating Sociology", *Canadian Review of Sociology/Revue Canadienne de Sociologie*, 55(2) (2018), pp. 322–324.
[38] Rawls, "An Essay on the Intrinsic Relationship", p. 396.

However, it is true that there is another danger that arises from the unlinking of 'factual' statements with 'objectivity', and one which Weber's specification of the appropriate roles of for social science does not fully answer. This danger is reflected particularly in the solutions which call for 'all voices' to be represented, for 'democratic and cooperative' research, and for an acknowledgement that the composition of the academic community will influence the production of knowledge. The particular danger that these proposed 'solutions' point to can be conceived of as the danger that, since as Weber emphasised all research makes necessary presuppositions, academic research as a whole can become biased if only certain presuppositions of what is important or valuable to research are made by the research community in general.

To follow Weber's movement in articulating what this means perhaps in more concrete terms for the role of social science researchers in practice, it is argued that what is required from researchers in practice is to consider ethical implications of research not only at the individual but at the research community level.[39] As the 'solutions' above indicate, the ability to produce unbiased knowledge requires an acknowledgement that it is not only that science can be used to identify the means required to pursue particular ends, as a way to illuminate the consequences that may be involved in carrying out these means, and to illuminate the presuppositions that are involved in considering particular ends as ones which should be pursued (as Weber emphasised), but that science as a whole has to do all these things for as many perspectives as possible, without prioritising certain perspectives over others, in order to be justified in its claim of producing unbiased knowledge. It is thus because it is firstly probably impossible for one researcher to carry out all of these tasks by themselves to an adequate standard and secondly because in order to ensure that one perspective is not prioritised over another requires an awareness of what is happening in general that research bias should be seen as an issue for the research community, and not as an issue that can be completely solved at the individual level.

[39] The term research community is used by this thesis to refer to the whole body of researchers in general, and is not limited to disciplinary divisions. Thus, it can be acknowledged that even within disciplines, there may be certain branches that are prioritised over others, and that this would lead to problems of value neutrality. Since this thesis focuses on interdisciplinary research, it is the relation between disciplines that is the main issue of interest.

The general notion that while knowledge produced by individual researchers may be empirically accurate but nevertheless biased and that this becomes a particular problem when the same bias is perpetrated throughout the research community is by no means a new one, and has indeed already been reflected by academic research movements. Feminist scholarship can thus be seen as an example which emphasises that research which ignores the female perspective, while perhaps accurate empirically, can nevertheless be biased in terms of its selection of what is considered relevant data, in its choice of how to define particular problems, in its choice of what is taken as an adequate level of explanation, etc. Similarly, the argument that academic freedom from political and external influence needs to be protected follows similar lines. It is not that research which focuses on the means to pursue particular political aims is inaccurate in an empirical sense, but that if the research community as a whole is only producing knowledge geared towards investigating these aims, then research as a whole does become biased.

This issue in fact links directly to debates that occur with regard to subjects such as law and economics, which sometimes focus on the distinction between 'factual' and 'evaluative' statements as if it was simply an issue of what logically can or cannot be inferred from one to the other and not relevant to debates on the value neutrality of research. It is thus not surprising that economics is the subject which Putnam uses in his example of the dangers that occur when research seeks to separate 'factual' and 'value' statements about economics as if one was 'objective' and the other 'subjective', and perhaps more importantly as if economics is only to do with 'objective' fact.[40] Drawing on the work of Amartya Sen, the problem identified is that what this standpoint often encourages is a bias towards research into, for example neoclassical economics and questions of supply and demand, i.e. 'factual' economic questions, and against research or discourse into the ethical issues of economics, into, for example, welfare economics and questions such as fair distribution of resources, i.e. questions which necessarily have to engage with 'evaluative' issues of what is fair, or of what promotes welfare, etc. Putnam singles out law as possibly subject to similar issues, and in some ways he is partly correct. This focus, on separating 'factual' from 'evaluative' statements, as though it is only a

[40] Putnam, *The Collapse of the Fact/Value Dichotomy*, Chapters 3-5.

question of what logically can and cannot be inferred from one to the other can also be found in discussions concerning how researchers can describe and understand the law.

Thus, Hart's identification of the internal and external perspective discussed above includes his emphasis that one can research the internal perspective of a social practice such as the law without thereby expressing endorsement for the taking of this internal perspective.[41] This position has further been clarified by others such as MacCormick, who describes this position as taking the hermeneutic point of view. He stresses the possibility of a:

> viewpoint of one who, without (or in scientific abstraction from) any volitional commitment of his own, seeks to understand, portray, or describe human activity as it is meaningful 'from the internal point of view'. Such a one shares in the cognitive element of that latter point of view and gives full cognitive recognition to and appreciation of the latter's volitional element. Thus she can understand rules and standards for what they are, but does not endorse them for her part in stating or describing them or discussing their correct application.[42]

An example provided of this 'hermeneutic' position is that of someone who is not a practicing Christian but nevertheless has had enough exposure to certain Christian practices that they can give an account of the rules and articles of faith by which certain Christians conduct themselves. These are examples of how one can describe the 'internal perspective' that exists towards a social practice without thereby expressing that an internal perspective to the practice should be taken.

However, they can also be taken as examples of the more general point that one can describe a phenomena from a particular perspective, or can provide knowledge relevant to particular perspectives that could be taken to a phenomena, without the researcher themselves making a statement that these particular perspectives should be taken. In many ways, this is similar to the notion that as a researcher one can clarify the means with which to pursue an end without thereby necessarily indicating that you should pursue those ends.

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[41] Hart, *The Concept of Law*, p. 88-91.
[42] MacCormick, *H.L.A. Hart*, p. 59.

This point is indeed made by Hammersley in his objection to Gewirtz and Cribb's position that researchers need to take responsibility for the ethical implications of their research.[43] Hammersley emphasises that the ethical implications of a study are simply that; implications and not 'necessary' conclusions which point to specific value judgements regarding what ought to be done. Thus, while a study which finds that individuals who are more highly qualified are more likely to be employed implies that individuals should attempt to achieve higher qualifications, as Hammersley states, this is not a necessary conclusion regarding what individuals ought to do that follows from the factual evidence itself.

As discussed above, it can be agreed with Hammersley and Hart that it is possible, as well as important for certain research purposes, to presuppose certain perspectives as researchers without thereby expressing that these perspectives should be taken. It does however become an ethical problem in two different ways. Firstly, should it lead to the type of 'thought-stopping' identified above; towards the implication that because researchers can make factual statements that presuppose certain value frameworks without thus making statements that express support for such value frameworks, there is no responsibility on researchers to investigate or discuss the presuppositions of these value frameworks themselves. Secondly, and relatedly, should it emphasise the ability of individual researchers to make empirically accurate statements within and/or about particular perspectives to the extent that the research community as a whole ignores other potential perspectives that exist, culminating in potentially biased research. These last points re-emphasise that the 'ethical colouring' that exists around research produced within chosen perspectives is a problem that needs to be seen as a community issue.

5.1.2 The Relation Between Perspectives

The other main challenge that has been made towards Weber's conception of the fact-value distinction is with regard to his conclusion that there is no 'rational' answer to 'value' conflict.

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[43] M. Hammersley, "Reflexivity for What? A Response to Gewirtz and Cribb on the Role of Values in the Sociology of Education", *British Journal of Sociology of Education*, 29(5) (2008), pp. 549–558.

Weber's insistence that the solving of value conflict is a matter of personal choice stems from his argument that there are many different value systems that exist, which often indicate different answers to the question of what one ought to do. Since, for Weber, it is impossible to say that, for example, the value of economic profitability is any more or less valuable than the value of aesthetic beauty, this means that there is no rational answer to the question of what one ought to do.

It is by following Weber's own arguments that it can be seen that a similar issue exists for 'factual' statements. Here too, as Weber emphasises, there exist many different perspectives which sometimes and often indicate different answers to the description, evaluation or explanation of what something is. Arising from this is the possibility of the same 'factual' conflict that Weber emphasises for 'value' statements; there may be no way to decide which description or explanation of what something 'is' is any better than a different description.

What this indicates is that Weber's concern over 'value' conflict may be over-emphasised. It is an issue that is also relevant for 'factual' conflict, and can be seen as not so much a methodological issue but rather a prediction that there will be no resolution to such conflict whereby one perspective 'wins' over the other. Weber has been challenged on this, due to the identification that such 'conflict' can be resolved in many other 'rational' ways; compromise, democratic discourse, a notion that one value framework may be more appropriate to a particular circumstance.[44] It is, however, at least arguable that Weber's insistence that one value cannot 'win' over another is not against the possibility of resolving such conflict in these other ways and in fact serves as more simply a warning of the unlikelihood that there will be any 'objectively' correct or 'infallible' answer to evaluative (or factual) questions.

Interpreting Weber's insistence of the impossibility of one perspective 'winning' over the other in this way can, in fact, again be seen to bring Weber closer to the position of his

[44] See Turner and Factor who take this as the central issue in their book, *Max Weber and the Dispute over Reason and Value*; F. Vandenberghe, "Sociology as Moral Philosophy (and Vice Versa)", *Canadian Review of Sociology/Revue Canadienne de Sociologie,* 54(4) (2017), pp. 405–422.

challengers. While Weber focused on the multiple perspectives that can exist and therefore the issue of how to decide which one is 'correct', others have emphasised the fallibility of value or factual judgements through their susceptibility to change due to provision of new fact. This will be discussed further below, in order to stress that the 'solution' to this is again somewhat reflected in the roles which Weber specified for social science.

Putnam in his analysis of the fact-value distinction draws on Sen's discussion of the distinction between basic and non-basic value judgements to emphasise that it is impossible to state beforehand the irrelevance of fact to value judgements.[45] Sen describes the difference as follows:

> A value judgment can be called 'basic' to a person if no conceivable revision of factual assumptions can make him revise the judgment. If such revisions can take place, the judgment is 'non-basic' in his value system.[46]

Putnam points to Sen's argument with regard to whether one can 'test' for the basicness of a value judgement, whether one can prove that a value judgement will not ever be affected by changes in factual circumstances. Sen highlights that it is impossible for anyone to have had the opportunity to consider all conceivable factual situations that might be or become relevant, and that consideration of hypothetical revisions of factual assumptions can only establish that fact is relevant to the value judgement and never that it is irrelevant. From this, it can be seen that, as Putnam emphasises, with regard to value judgements, it is at our own peril to assume that they are infallible because it cannot be proven that a new fact will not change them.

A similar argument has been made by Jonathan Jacobs in his consideration of the fact-value distinction and how it applies to social sciences.[47] Rather than focusing on the distinction between basic and non-basic value judgements, Jacobs emphasises the issue as one of enlarging our understanding of our concepts. It is in this way that the impossibility of stating beforehand the irrelevance of fact can be seen to extend not only to evaluative

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[45] Putnam, *The Collapse of the Fact/Value Dichotomy*, pp. 75-78.
[46] A. K. Sen, "The Nature and Classes of Prescriptive Judgements", *The Philosophical Quarterly (1950-)* 17(66) (1967), pp. 46–62, p. 50.
[47] Jacobs, "The Fact/Value Distinction".

but also non-evaluative concepts. Jacobs compares the concept of fairness to that of iron to emphasise that for both, additional texture and detail can be added so that our understanding of the concept can be enlarged and developed. As Jacobs notes this is done through adding 'factual' evidence such as how fairness relates to other moral matters such as honesty or generosity, or the constituent properties of iron such that we can learn how it can be distinguished from copper or aluminium. For Jacobs, this is the important 'work' that has to be carried out.

This process of testing the 'basicness' of value judgements, or 'enlarging' our understanding of concepts, is reflected in Weber's emphasis on using social science to identify the means required to achieve particular ends, the importance of keeping an open mind and continuing to identify the side-effects and consequences that arise in pursuit of these ends, and the presuppositions that are involved in valuing particular ends. These uses of social science are, in effect, examples of the ways in which fact can be used to prove the non-basicness of our judgements or how fact can enlarge our understanding of concepts. It is, for instance, because a potential side-effect will occur in the pursuit of a particular end that may change judging the end as one that should be pursued. Thus again, while Weber's argument that there is no 'rational' answer to value or factual conflict in which one perspective can 'win' over the other has been challenged, his articulation of the roles of social science seem to provide some answers for how a different type of 'rational' answer can be provided. As above, the multiple perspectives which exist highlights the need to therefore carry out research into these perspectives without prioritising one over the other. What Putnam and Jacobs can be seen to emphasise is the requirement for researchers to be aware of how these different perspectives relate to each other in terms of how they offer different perspectives to similar topics and concepts and indeed to 'work' on clarifying the differences between these conflicting perspectives so that our judgments and presuppositions can be 'tested' and our understandings of concepts enlarged.

5.1.3 The Requirements of Value Neutrality

Weber's emphasis on the subjectivity of factual statements has been accepted and points to the important observation that such statements are still made within presupposed value frameworks. As has been discussed above, this observation can be applied to academic

research in order to emphasise that research too is also carried out under presupposed perspectives, in particular presupposed perspectives of what is and is not important to research. This is true of all research, whether referring to disciplinary research which assumes disciplinary value frameworks, or to perhaps newer branches of research which assume value frameworks that are not yet reflected by existing disciplinary perspectives.

The challenge of value neutrality very much arises from this important observation regarding the subjectivity of factual statements and addresses the particular issue of how to ensure research nevertheless remains as unbiased as possible. While Weber's writings contain the beginnings of an answer to this issue, what has been highlighted in the discussion above is that Weber himself under-emphasised the requirement to see value neutrality as a community issue and over-emphasised the conclusion that one must commit to the notion that values are irreconcilable.

Instead, the discussion demonstrates that the way in which to maintain value neutrality is to ensure that one value framework or perspective is not prioritised to the exclusion of others. Secondly, that the importance of acknowledging value frameworks is not to emphasise the conflict that exists between them but rather to emphasise the importance of engaging with these value frameworks openly in order to enlarge understandings and test the value judgments that are made. This does not preclude the possibility that value conflicts can be resolved in rational ways, but nevertheless emphasises the requirement that any attempted resolutions to such conflict engage with the different value frameworks that have been proposed, acknowledging the compromises that are made when one value is chosen over another.

The requirements of value neutrality can therefore be stated in two parts. Firstly. there is the requirement that researchers as a community do not prioritise one research perspective over another but rather that a spectrum of research perspectives is included. Secondly, there is the requirement to carry out work that engages and analyses the different research perspectives that do exist. Such work should draw on different research perspectives in order to enlarge understandings and to test the presuppositions that are made within research perspectives.

5.2 Implications for Psycho-Legal Research

The points which emerge from this discussion of the fact-value debate and how it has played out with regard to the methodology of social sciences provide answers that are relevant to the questions that have been raised towards the methodology of psycho-legal research. These points allow the questions raised regarding the Inter-Disciplinary Proposal to be addressed, so that this thesis can establish what the Inter-Disciplinary Approach to psycho-legal research is. They also provide reasons for why the Multi-Disciplinary and Trans-Disciplinary Proposals remain important to consider.

5.2.1 Establishing the Inter-Disciplinary Approach

Firstly, as Weber's writings highlight, what relevance and meaning a fact has is not found within the fact itself but in the presuppositions of particular perspectives and frameworks which provide significance and relevance to the fact. This means that if a fact is 'relevant' to a particular perspective, it is because this particular perspective has deemed it to be relevant. Also highlighted above is that all disciplines make certain presuppositions regarding what they consider to be significant and worthy to research, and it is these presuppositions which decide the information and knowledge that is relevant to the discipline and what its significance is.

These points can be translated to the questions identified in Chapter 1 regarding how psychology can contribute to legal issues. One of these questions was whether and if so how the law can justify itself against conceding to psychological fact. This chapter emphasises instead that the relevance of psychology to the law and thus its ability to contribute depends on how the law deems the psychological fact to be relevant. In other words, the law should always take account of psychological fact but only to the extent that it is relevant to the law.

That it can be difficult to clarify whether and how a fact or particular piece of information is relevant to a particular perspective is highlighted by the common critique by psycho-legal sceptics that there are 'cost-benefit' issues to consider before implementing legal changes based on psychological insight, an awareness reflected in the Alternate Proposal

and in the case studies of psycho-legal research. Following this chapter's analysis, this emphasises that while a psychological fact may be relevant to a legal issue, it is often not determinative, and how the psychological fact is incorporated into the law will then depend on how the psychological fact fits and has to be balanced against other legally relevant factors. The consideration of 'cost-benefit' issues can thus be explained from a methodological perspective as the consideration of *how* the psychological fact is relevant to the legal issue. This provides perhaps additional clarity to the Alternate Proposal because it specifies that legally relevant psychological fact should always be taken account of by the law, but that if the psychological fact is not determinative of the legal issue (as will probably be the case in most instances), then it will not necessarily lead to a change in the substantive legal requirements. This is because in this situation, as acknowledged by the Alternate Proposal and the case studies in Chapters 3 and 4, awareness needs to be shown to 'cost-benefit' issues and legal 'justifications' or what can more clearly be identified as consideration of how law considers the psychological fact to be relevant. Regarding the Mainstream Proposal, while the concern that law's psychological assumptions should be based on accurate and up-to-date psychological knowledge is valid, it is only to the extent that the psychological fact is relevant to the issue that the law must 'concede' to it.

Secondly, this chapter can also explain why there seemed to be little difference, in terms of how law and psychology were interacting, between the empirical and normative psycho-legal claims which were analysed in Chapters 3 and 4. The Empirical Alternate Proposal makes this distinction by claiming that empirical psychological fact can contribute to empirical but not normative or conceptual legal issues.

Whether fact can be relevant to normative or conceptual questions relates to the issue that has been discussed in this chapter concerning how to solve conflicting perspectives. Weber, for instance, was concerned with how to decide the normative questions such as whether economic profitability or aesthetic beauty is more important. This issue carries over to conceptual issues, such as the example from Jacobs regarding different disciplinary perspectives to the concept of fairness. However, as discussed by Putnam and Jacobs, while the conflict between presupposed perspectives may not be able to be resolved such that one 'wins' over the other, there is emphasis from both regarding the importance of not

assuming that these normative and conceptual judgments cannot continue to be tested with fact. Putnam emphasises that it is always open for a normative judgment to be changed with the appreciation of a new fact that had previously not been considered. Jacobs in turn emphasises how our understandings of concepts can be enlarged and expanded upon through the addition of new factual information. These statements were originally made to show that while conflict between perspectives may not be able to be solved, there is still an important role that social science can play in helping to understand the conflicts between these perspectives and potentially to change the judgments which have been made. However, rephrased, they are also relevant to the current issue since they emphasise the broader acknowledgement that fact is indeed relevant to normative and conceptual issues. In terms of the relationship between law and psychology, this means that an assumption that psychology is able to contribute to legal empirical questions but not to legal normative or conceptual questions is incorrect.

An example to show how psychological fact can be relevant to legal conceptual questions is with regard to the question of what the legal requirements of a specific case are. While psychology may be relevant as evidence of whether the facts of a case are instantiations of a legal concept, psychological fact may also be relevant as evidence that assists with legal interpretation and therefore with the conceptual question of what counts as an instantiation of the legal concept. To use the example of eyewitnesses again, psychology can provide evidence of whether an eyewitness identification in a specific case is reliable. This would be psychology assisting with what Pardo and Patterson term to be an empirical question. Psychology could, however, also provide evidence of what counts as a ‘reliable’ eyewitness identification according to the law, in other words what the legal interpretation of ‘reliable’ is. For instance, perhaps according to the law, the legislator’s intention is relevant for deciding what constitutes ‘reliable’ eyewitness testimony. Perhaps also psychological evidence would be relevant in determining what the legislator’s intention was. In this instance, this would be an example of how psychology can in fact assist with what Pardo and Patterson term as a ‘conceptual’ question, helping to find out what counts as ‘reliable’. In both instances, psychology plays a similar role of providing relevant information to the law.

On this point, is noted that many of the critiques from psycho-legal sceptics emphasise perhaps not that scientific fact would not be relevant in any way to normative and conceptual questions but that psychology may not be able to determine them. Thus, Pardo and Patterson's main criticism to Churchland's proposal that neuroscience may be able to tell us when a brain is in control and therefore assist with questions of responsibility is that it does not fully answer the question of legal responsibility, which includes issues of negligence, consideration of the severity of harm caused etc.[48] This consideration is also reflected in Morse's writings which seek to emphasise that scientific fact does not lead to any specific moral or legal conclusion. This is true. However, as discussed above, this is the same for 'factual' and empirical legal questions. Indeed, the criticisms from Pardo and Patterson and Morse can be taken to reinforce the argument above that awareness needs to be shown not only to whether psychological fact is relevant to the legal issues but also how it is relevant to these issues, for empirical and normative or conceptual legal issues.

This chapter also highlights the dangers that exist in the assumption that normative or conceptual legal issues are ones to which psychology, due to its empirical nature, cannot or is less able to provide relevant knowledge. These are the same dangers of bias or 'thought-stopping' that are outlined above; a bias into psycho-legal research that focuses purely on the relevance of psychology to empirical legal questions and ignores the potential of psychology to be relevant to normative or conceptual legal questions.

Thirdly, this chapter emphasises that there is a danger of biased research if research is pursued in order to provide particular substantive research findings and conclusions. The emphasis in the Mainstream Proposal of legal reform as the end goal or mark of success of psycho-legal literature is an example of such an approach. In line with the indications from this chapter, it should be emphasised that legal reform is not an outcome that can be controlled for but is instead dependent on how the psychological fact is relevant to the legal issue. While there is cause for concern if legal issues are not taking account of relevant psychological fact, the likelihood is that psychological fact is not determinative of the legal issue, and therefore by itself holds no particular legal conclusion.[49] As such, the

[48] See Chapter 1 for a discussion of this critique.
[49] The notion that psychological fact may be relevant but not determinative to a legal issue has been indicated by others too, but within the realm of explaining how psychology can have greater impact on law rather than within the realm of explaining why this is not a suitable mark of success for this

view that the end result of legal reform is a mark of success for psycho-legal research is a problem because it leads to research that over-emphasise findings that support a particular research outcome and ignore conflicting arguments or research studies. Importantly, it is not inherently biased to gear research towards the issue itself of policy goals or legal reform and use psychology to test whether or not legal reform is needed, and if so what type of legal reform is required. However, what is biased is to state beforehand a preferred substantive outcome of the research. In this case, the preferred outcome that psychology will indeed find that legal reform is required. Instead, it has to be acknowledged that testing the psychological assumptions which the law makes *can* lead to an argument for legal reform, but it can also reveal inaccurate assumptions which are nevertheless not determinative to the legal issue and therefore do not make a clear-cut case that legal requirements should be changed.

A distinction can thus be made here between what can be termed the substantive research goals of a research perspective, which reflect what the perspective considers to be important to research, and substantive research outcomes, which relate to substantive research findings and conclusions that arise from research that is carried out within a research perspective. It is presuppositions of the latter and not the former which is a cause of concern. The former makes a presupposition about what is important to research while the latter makes a presupposition of what the research findings themselves under this research perspective should be. While the former therefore remains as a research question, the latter becomes a research conclusion. For example, the substantive research goal of psychology is to understand and explain human thought and behaviour. This is simply a presupposition which reflects what the research perspective of psychology is, and what it deems to be significant and important to research. It can be phrased as a question: How can human thought and behaviour be explained? A substantive research outcome on the other hand refers to substantive findings within this perspective, for instance, a psychological finding that human thought and behaviour is genetically determined. This is not a research question and instead becomes a research conclusion. It becomes problematic if a preference for this particular research outcome is demonstrated by researchers or is taken

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type of psycho-legal research, from a methodological perspective. See G. Wells, "Helping Experimental Psychology Affect Legal Policy", in N. Brewer, and K. D. Williams (eds.), *Psychology and Law: An Empirical Perspective*, (London; New York, NY: Guilford Press, 2005).

to be the research goal because it lends itself to biased research within the chosen research perspective. For instance, the use of psychological methods or data that are more likely to find that human thought and behaviour is genetically determined.

While this issue relates to Weber's concerns, it can be seen that the importance of not presupposing substantive research outcomes is a slightly separate issue to value neutrality. This is because it is not providing a solution regarding how research as a whole can remain unbiased due to the existence of different research perspectives. It instead addresses the issue of how to carry out unbiased research within a chosen research perspective, and can be seen as part of the more general issues that all researchers face regarding how to ensure accurate and valid research within their own respective research perspectives.

Indeed, the case studies of Chapters 3 and 4 can be taken as a form of evidence of the danger that occurs when the research approach specifies beforehand a preferred research outcome, such as research findings that will support an argument for legal reform. The case studies demonstrated how potential inaccuracies made in the psycho-legal research can be traced back to pressure to use psychological fact to make an argument for legal reform. One example was an inaccurate assumption of the legal issue that provides psychology with a more significant role for the legal issue than it actually has. For instance, an inaccurate assumption that the legal issue is wrongful conviction caused by inaccurate eyewitness testimony when the legal issue is actually how to ensure the fair trial of the defendant while balancing the need to ensure effective policing of crime.

Notably, setting legal reform as the mark of success for psycho-legal research does also violate value neutrality concerns because it limits the legal issues which are considered by psycho-legal research to the legal issues of what the legal requirements are or what the legal requirements should be. It is only if psychological fact is relevant to these particular legal issues that psychology can make an argument for legal reform. What this proposed outcome for psycho-legal research excludes is therefore the possibility that psychological fact may be relevant to other legal issues. For instance, psychological fact may be relevant to the legal issue of how we can understand or describe the nature of law. Discussed above was the distinction made in law by Hart between the internal and external viewpoints that can be taken towards law. Psychology may be relevant to this issue in helping to discover

what it is that causes individuals to adopt an internal perspective to law. In this instance, psycho-legal research which addresses this legal issue may not lead to an argument for legal reform, but it may lead to a new way in which we can understand the functioning or nature of the law.[50]

Taken together, these implications from the discussion of the methodology of social sciences answer the outstanding questions identified by this thesis regarding the Inter-Disciplinary Proposal. They enable this proposal to interdisciplinary research to be clarified and established by this thesis as the **Inter-Disciplinary Approach**, which can now be outlined in terms of the 'Why', 'How', and 'To What Ends' of interdisciplinary interaction. 'Why' disciplines are brought together is because one discipline may make assumptions regarding an area of expertise and knowledge that is the focus of a second discipline. The second discipline therefore becomes relevant to the first. The method of interaction is that this second discipline will provide information that is relevant to the first. The benefits of this form of interdisciplinary interaction are that the questions of the first discipline can be answered using information provided by the second. This will lead to the improved accuracy of any assumptions that are made, and to development within the first discipline to the extent that the information is relevant.

The establishment of this Inter-Disciplinary Approach acknowledges, as the Inter-Disciplinary Proposal and psycho-legal literature does, that it is indeed possible for disciplines to integrate but nevertheless remain distinguishable from each other, through one discipline answering the questions of another. It highlights the important role interdisciplinary research has in sharing the expertise and resources of one discipline so that it can contribute to other disciplines. The established Inter-Disciplinary Approach adds important detail that this type of interaction occurs through a point of relevance, leading to change within one discipline only to the extent that information from another is relevant. It emphasises that the end-goal of the current Mainstream Proposal identified in Chapter 1 is incorrect because it leads to research bias and violates value neutrality. Further, it clarifies the Alternate Proposal identified in Chapter 1 and the indications reached by real-life psycho-legal research by emphasising that the requirement to be aware of cost-benefit

[50] Dan Priel has also considered this in more detail in, "Jurisprudence and Psychology", in *New Waves in Philosophy of Law* (Springer, 2011), pp. 77–99.

issues regarding the implementation of psychology into legal issues is in fact a requirement to be aware of how the knowledge and information from one discipline is relevant to the other. Lastly, it confirms that the Empirical Alternate Proposal is incorrect. This is because there is the possibility that psychology may be able to provide information that is relevant to both empirical and/or normative and conceptual legal issues, and the method of interaction between law and psychology is the same for both.

Because the Inter-Disciplinary Approach provides a framework for the interaction of general disciplines, it indicates the possibility that either psychology could act as the discipline providing relevant information to law, or that law could act as the discipline providing relevant information to psychology in the same way. This lends initial support to the Psychological Perspective Proposal which will also be discussed below and further in Chapter 6.

5.2.2 Justifying Consideration of Alternative Approaches to Psycho-Legal Research

The last implication from this chapter concerns the emphasis that there is a requirement for researchers as a community to both pursue different perspectives so that research as a whole does not become biased, and to 'work' on how these perspectives relate to each other so that understanding of concepts can be enlarged and the 'basicness' of value judgements tested with the addition of new and relevant factual discoveries. These points provide reasons for why psycho-legal research should be encouraged to consider engagement with the Psychological Perspective, Multi-Disciplinary and Trans-Disciplinary Proposals.

An alternative proposal identified in Chapter 1 from the psycho-legal literature was the Psychological Perspective Proposal, which suggests that it may not only be legal issues which can be improved using psychological fact but also psychological theory and knowledge that can be improved using the legal context. This chapter highlights the importance of not prioritising one research perspective over the other in order to prevent biased research from occurring. This provides a reason for why it is important for psycho-legal research to consider the possibility of the Psychological Perspective Proposal. It is

important because a focus only on using psycho-legal research to develop legal issues when such research could also develop psychological issues leads to a lack of value neutrality in psycho-legal research. Since the mainstream psycho-legal literature does not focus on this possibility and since this was also reflected in the two case studies, questions however remain regarding the Psychological Perspective Proposal, particularly whether there are reasons inherent to the specific disciplines that prevent law from contributing to psychological knowledge and theory. Chapter 6 will therefore consider in more detail the possibility of using law to contribute to psychology.

The case studies in Chapters 3 and 4 demonstrated an interest in framing topics as instances of real-world injustices, often contrasting with how the topic is seen within the legal system. This could indicate an already existing interest on the part of psycho-legal researchers to engage in the Trans-Disciplinary Proposal, which suggests that interdisciplinary study can be used to help solve real-world problems. This proposal highlights that a topic can be researched from a perspective that differs from the law, one that focuses on real-world problems. The conclusions of this chapter provide a justification for why such research under the Trans-Disciplinary Proposal would be important to undertake. By carrying out research under a different perspective to law, this can be a way to maintain value neutrality by ensuring that topics such as eyewitnesses and criminal retributive practices are not being researched solely under the perspective of the legal discipline. For instance, so that the psychological factors which are relevant in terms of how inaccurate eyewitness testimony can lead to wrongful convictions as a real-world problem are researched even if they are not relevant to what the legal issues of eyewitnesses are considered to be. While this chapter provides reasons for why the goals of the Trans-Disciplinary Proposal are important, the questions identified in Chapter 2 still remain regarding how disciplines can be brought together to solve real-world problems. Chapter 7 will therefore discuss the possibilities of the Trans-Disciplinary Proposal further.

In turn, this chapter also provides a reason for why the Multi-Disciplinary Proposal is important to consider as a possible way in which law and psychology can interact. This proposal focuses on how separate disciplines can each contribute their separate perspectives to the same topic or issue. It was noted in Chapter 2 that the literature did not detail the purpose that was served by bringing disciplines together in this way. As

discussed by this chapter, Putnam and Jacobs highlight the importance of bringing different and conflicting perspectives together, not so that they can be synthesised or so that one perspective can 'win' over the other, but so that our understandings can be enlarged and our value judgments continue to be tested. By bringing together different disciplinary perspectives, it can be seen that the Multi-Disciplinary Proposal may be able to contribute to these goals and this may be the 'To What Ends' of this interdisciplinary approach. For instance, Jacobs uses the example of the concept of fairness and how our understanding of this concept can be enlarged through the addition of 'factual' evidence regarding how fairness relates to other concepts. Bringing together different disciplines and their perspectives on fairness can contribute to this work, since each discipline will provide distinct areas of knowledge and information regarding what they presuppose to be relevant to the concept of fairness. For instance, the legal discipline may focus on how fairness relates to concepts of justice and individual rights. Conversely, the psychological discipline may focus on how fairness relates to human perception and cognitive behaviours, or how fairness affects psychological issues such as well-being or interpersonal relations. The Multi-Disciplinary Proposal has been discussed by this thesis in the least amount of detail since it has received the least attention in the psycho-legal literature and the psycho-legal case studies thus far analysed. The question of whether law and psychology can be brought together under the Multi-Disciplinary Proposal and what this would involve will therefore also be addressed in greater detail in Chapter 7.

5.3 Summary and Conclusions

An analysis of the debate concerning the methodology of social sciences has answered many of the questions identified in Chapters 1 and 2 concerning the relationship between law and psychology.

This has enabled this chapter to explain why the Alternate Proposal and the approaches taken by psycho-legal researchers in Chapters 3 and 4 which consider justifications for why psychological fact may not lead to legal reform are correct, and conversely why the Mainstream Proposal's emphasis on legal reform as an end goal of psycho-legal research is problematic. This is because it creates research bias by specifying a preferred research outcome. As highlighted by the literature on the methodology of social sciences, the

relevance and meaning of a fact is not found within the fact itself but instead in the particular perspective which is taking this fact as relevant. The relevance of psychological fact to the legal issue and therefore how it can contribute to legal reform will therefore depend on whether and how the fact is seen to be relevant by the law. The Empirical Alternate Proposal was also shown to be incorrect because, as demonstrated by this chapter, scientific fact can be relevant to both empirical and normative or conceptual legal issues in the same way.

Through these points, this chapter established the Inter-Disciplinary Approach as one possible methodological approach in which psychology and law as disciplines can interact in interdisciplinary study. This approach emphasises the possibility that there are areas which 'overlap' in the sense that one discipline can sometimes assume or rely on knowledge or information that falls under the focus and expertise of another discipline. Interdisciplinary research can therefore assist in the pooling and sharing of such knowledge. This forms the reason for why disciplines should be brought together. The method or 'How' of this approach is that one discipline will provide the relevant information to the second. The benefits or 'To What Ends' of such interdisciplinary research is that the second discipline can improve the accuracy of their assumptions and incorporate this relevant information, leading to change and development of the second discipline to the extent that the information provided by the first discipline is relevant to the second.

The debate concerning the methodology of social sciences, through emphasising the subjectivity of disciplinary knowledge, stresses the importance of maintaining value neutrality in research by, firstly, ensuring that the research community does not prioritise certain research perspectives over others and, secondly, ensuring that consideration is given by research into the conflict which exists between research perspectives. This has been argued to provide reasons for why it is important to consider in more detail other approaches beyond the one encouraged in current mainstream psycho-legal literature. This is because these other proposals engage with the possibility that psycho-legal research can contribute to research perspectives outside of the legal discipline. Thus, it is possible that under the Inter-Disciplinary Approach, instead of focusing on contributions to the legal perspective, research can be undertaken regarding law's relevance to psychology, i.e., the

Psychological Perspective Proposal. Chapter 6 will therefore consider this proposal in greater detail. The Trans-Disciplinary Proposal encourages psycho-legal research to contribute to disciplinary research perspectives outside of either law or psychology. The Multi-Disciplinary Proposal encourages research to be carried out into the conflict that exists between disciplinary perspectives so that our understandings are enlarged and the presuppositions made by existing research perspectives clarified. Both of these are ways in which to maintain value neutrality in research. Chapter 7 will further consider the possibilities of combining law and psychology through the Trans-Disciplinary and Multi-Disciplinary Proposals.

Chapter Six – The Psychological Perspective Proposal

The previous chapter established the Inter-Disciplinary Approach as one possible way in which law and psychology can interact, through the relevance of one to the other. However, it has been noted by the Psychological Perspective Proposal that psycho-legal research focuses for the most part on the relevance which psychology has for law, omitting the possibility that law may be relevant to psychology. However, the proposal as it currently exists is based on general observations of the field and detail is not provided regarding 'How' or 'To What Ends' law can be relevant to psychology. This chapter will therefore establish the two different possible branches for psycho-legal research under the Inter-Disciplinary Approach. They will be named by this thesis as the Psychological Perspective Branch, when law is contributing as relevant to psychological issues, and the Legal Perspective Branch, when psychology is contributing as relevant to legal issues. The chapter will provide greater detail on what these different branches of the Inter-Disciplinary Approach entail. From this, clearer and more comprehensive indicators of the difference between the two branches will be developed. These new indicators will be applied to a sample of articles published on jury decision making, serving as one of the first attempts to use an empirical content analysis method to test the specific question of whether, and if so why, psycho-legal research tends to take a legal or psychological perspective to Inter-Disciplinary research.

6.1 The Remaining Challenge from the Psycho-Legal Literature

Most of the questions identified in Chapter 1 regarding the relationship between psychology and law relate to a particular approach to psycho-legal research which centres around the relevance that psychology has to law. These challenges were whether psychology bears no relevance to normative or conceptual legal questions, whether law can 'justify' not taking account of psychology, and whether legal reform due to the revealing of inaccurate psychological assumptions made by the law should be taken as the main goal for psycho-legal research. These issues have all been addressed by Chapter 5's analysis of the methodology of social sciences.

However, Chapter 1 also drew attention to another proposal that has been made for how law and psychology can interact – the Psychological Perspective Proposal. It was identified that a minority of commentators suggest that psychology and law may be able to be brought together to describe and explain law in such a way that can build on and develop psychological theory, and that this approach is neglected in mainstream psycho-legal research. While not framed as such, this remaining challenge that needs to be addressed by this thesis can be seen as pointing to the difference that exists between two ways in which the Inter-Disciplinary Approach to psycho-legal research can be carried out.

As detailed in Chapter 5, the Inter-Disciplinary Approach concerns the ability for disciplines to be brought together when one is able to provide relevant information and therefore contribute to another. With regard to psycho-legal research, this indicates that it can either be psychology that provides relevant information to law or law that provides relevant information to psychology. The former branch of the Inter-Disciplinary Approach has already been discussed in previous chapters since it is has received the most attention in the psycho-legal literature and in the case studies of Chapters 3 and 4. Under this branch, psychology provides more accurate information regarding the psychological assumptions which law makes, leading to legal change to the extent that the psychological fact is relevant to the legal issue. This will be referred to as the Legal Perspective Branch of the Inter-Disciplinary Approach by this thesis, because it focuses on the legal issue and providing relevant psychological information to this. In the second, the reason for bringing law and psychology together is that law can help to inform psychology, thus building on and developing psychological theory to the extent that law is relevant. This will be referred to as the Psychological Perspective Branch of the Inter-Disciplinary Approach by this thesis, because it focuses on the psychological issue and providing relevant legal information to this.

The remaining Psychological Perspective Proposal identified from the psycho-legal literature in Chapter 1 therefore, since it emphasises the opportunity that law can be used to build on psychological theory, falls under a critique that psycho-legal research tends not to engage with the Psychological Perspective Branch. As discussed in Chapter 5, the focus only on how psycho-legal research can benefit the legal discipline and the omission of the

possibility that it can lead to benefits for psychology can be seen as a bias that impacts on the value neutrality of psycho-legal research.

Indeed, this criticism that the Psychological Perspective Branch has been omitted from psycho-legal research exists not only within the general psycho-legal literature but also among others who have evaluated the specific example of psycho-legal research on jury simulation. For instance, a distinction has been made between using psycho-legal research on jury simulation to draw conclusions about real jury functioning, i.e. Legal Perspective Branch, and using such research as a vehicle to test and develop psychological theory, i.e. Psychological Perspective Branch, with authors concluding that jury simulation research has rarely been used for the latter.[1] Likewise, in a critique of jury simulation research, an author comments that many such articles focus on the 'extra-legal biases' that can be demonstrated in studies which use jury simulation to test juror decision making, and that statements are often made that such findings are a source of serious concern for the law. In other words, the author critiques the dominance of the Legal Perspective Branch.[2] Others too have stressed that testing legal assumptions is not the only possible objective of psycho-legal research on jury behaviour but that such research can be used to develop psychological theory and carry out basic descriptive work on the general psychological processes that are found in the legal context.[3]

However, while these comments support the claim that there is indeed an important difference between the Legal Perspective Branch and the Psychological Perspective Branch and that it is likely that the latter is perhaps unfairly neglected by current psycho-legal research, none of the challengers go into detail regarding the 'How' of the Psychological Perspective Branch - how exactly law can be used to inform psychology.

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[1] W. Weiten, and S. S. Diamond, "A Critical Review of the Jury Simulation Paradigm: The Case of Defendant Characteristics", *Law and Human Behavior,* 3(1–2) (1979), pp. 71–93.
[2] N. Vidmar, "The Other Issues in Jury Simulation Research: A Commentary with Particular Reference to Defendant Character Studies", *Law and Human Behavior,* 3(1–2) (1979), pp. 95–106.
[3] R. M. Bray, and N. L. Kerr, "Use of the Simulation Method in the Study of Jury Behavior: Some Methodological Considerations", *Law and Human Behavior,* 3(1–2) (1979), pp. 107–119; B. H. Bornstein, and E. Greene, "Jury Decision Making: Implications For and From Psychology", *Current Directions in Psychological Science,* 20(1) (2011), pp. 63–67.

This can in fact lead to an underemphasis of the potential ‘To What Ends’ that arise from the Psychological Perspective Branch. As discussed in Chapter 1, Small is an author who has critiqued the dominance of the Legal Perspective Branch through his argument that psycho-legal research has focused too much on psychologically analysing legally relevant behaviour, what he describes as legal psychology, and not enough on describing and explaining the law by reference to human behaviour, what he describes as psychological jurisprudence.

However, perhaps because Small does not specify further how law can be explained by reference to human behaviour and be relevant to psychological theory, the examples he provides of psychological jurisprudence revert to examples only of the Legal Perspective Branch. In his example of therapeutic jurisprudence, studying the therapeutic or anti-therapeutic effects of the law is indeed one possibility for how law can be relevant to psychology. Law is being used in order to test whether it has particular psychological effects, therapeutic or anti-therapeutic, on humans. However, Small does not state how this research can use law to build on psychological theory regarding factors which have therapeutic effects on humans. Instead, he emphasises only the ability for these results to contribute to legal issues. He thus mentions similar challenges to those that would only be relevant to the Legal Perspective Approach; the need to be aware of how therapeutic effects are relevant to law and that it will be less relevant for areas of law not related to mental health policy. As will be discussed below, this is possibly because the therapeutic effects of the law can be taken as a psycho-legal topic due to how it gives rise to both psychology’s potential relevance to law and law’s potential relevance to psychology. While Small is therefore correct to note that psycho-legal research on the therapeutic effects of law will have relevance to legal issues, his example of therapeutic jurisprudence fails to specify how such research could also have relevance for psychological issues.

A lack of clarity regarding how law can be relevant to psychology can also lead to the application of inaccurate measurements when testing the question of whether a legal or psychological perspective to psycho-legal research is being carried out. A recent empirical study has addressed the question of what type of interdisciplinary research psycho-legal

research is undertaking.[4] The authors make a similar comment that most psycho-legal research seems to focus on psychology's relevance to law. However, perhaps because the authors do not provide specification of how law can be relevant to psychology, their criteria for testing the type of integration between the psychology and law rely on simple measures to test for the type of interdisciplinarity which is occurring. As will be discussed below, the criteria utilised by the authors can be found in either branch of the Inter-Disciplinary Approach and therefore do not adequately account for the differences between them.

The remaining challenge from the psycho-legal literature that has yet to be addressed by this thesis is therefore the omission of the Psychological Perspective Branch of the Inter-Disciplinary Approach. The existing literature does not provide a description of the 'How' and 'To What Ends' of the Psychological Perspective Branch. The next section of this chapter will address this oversight. By providing a more detailed analysis of the possibilities of the Psychological Perspective Branch, whereby law is brought as relevant to psychology, the indicators which can be used to identify such an approach can be specified. These indicators will provide a more comprehensive way in which to test whether, and potentially why, psycho-legal study focuses more on psychology's relevance to law than law's relevance to psychology.

6.2 Establishing the Psychological Perspective Branch to Psycho-Legal Research

From a psychological perspective, law can be relevant to the psychological study of human thought and behaviour in two specific ways. Firstly, it can be taken as a variable that has psychological effects which can be studied and used to build on psychological theory regarding the causes or influencing factors on human thought and behaviour. For instance, a recent study has found that legal decisions can influence the public's moral judgments, such that moral permissibility of the same behaviour is decreased if it leads to legal

[4] L. Clatch, A. Walters, and E. Borgida, "How Interdisciplinary? Taking Stock of Decision-Making Research at the Intersection of Psychology and Law", *Annual Review of Psychology,* 71(1) (2020): pp. 541–561.

conviction compared to if it leads to legal exoneration.[5] Another example is a study which shows that adolescents who experienced more lenient processing in the criminal system for their first arrest (sanction and dismiss) were less likely to engage in further criminal behaviour compared to youths who had faced more severe processing (adjudication) for the same behaviour.[6] In such examples, law can contribute to psychological theory by providing evidence of an influencing factor on human thought and behaviour. Secondly, the thoughts and behaviours of legal actors and those involved with the law can be taken itself as an example of human thought and behaviour. An example of this would be studying the decision making of judges and jurors in order to build on psychological theory and knowledge with regard to human decision making.

These two ways in which law can be relevant to psychology applies to a broad understanding of 'law'. Similar to an approach which takes psychology to be relevant to law, 'law' can be understood to encompass legal decisions, legal policies and requirements, and legal categories and constructs. The latter includes for instance how the law categorises behaviour into different types of offense, e.g., murder versus manslaughter, and more theoretical constructs such as the internal/external divide mentioned in Chapter 5. In all of these cases, how these instances of 'law' can be made relevant to psychology is through the two ways specified above; through the thought and behaviour that is demonstrated or through the effects which the 'law' has on human thought and behaviour. For instance, the legal internal/external divide can be relevant to psychology through the differences in the human thought and behaviour that are demonstrated in the internal versus external viewpoint of law. An example could be that a psychological difference may exist between why people adopt an internal attitude towards the legal system compared to why some others may adopt an external viewpoint. Psychology could then use this to build a psychological theory around the internal/external divide that focuses on the psychological differences displayed within each category.

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[5] A. Mentovich, and M. Zeev-Wolf, "Law and Moral Order: The Influence of Legal Outcomes on Moral Judgment", *Psychology, Public Policy, and Law*, 24(4) (2018), pp. 489–502.
[6] J. Beardslee et al., "Under the Radar or under Arrest: How Is Adolescent Boys' First Contact with the Juvenile Justice System Related to Future Offending and Arrests?", *Law and Human Behavior*, 43(4) (2019), pp. 342–357.

Legal categories and constructs can thus, through the relevance of the human thought and behaviour that is demonstrated within these categories, lead to new psychological categories and constructs. This would be through any psychological differences that exist between the human thought and behaviour that is demonstrated in each legal category, or through the psychological differences that exist between how human thought and behaviour is influenced by each legal category.

Importantly, an approach to psycho-legal research that takes psychology to be relevant to law differs significantly from an approach that takes law to be relevant to psychology. This is with regard to the topics that are chosen to research and with regard to how these psycho-legal topics are researched. As such, engaging with only the legal perspective to psycho-legal research will mean that certain potential psycho-legal topics go unresearched and that the potential benefits that arise from taking the psychological perspective go unrealised.

Thus, there are certain topics which encourage interaction between law and psychology only because of the law's interest in certain psychological facts or only because of psychology's interest in certain legal phenomena. For instance, there may be psychological effects of the law or thoughts and behaviours demonstrated in the legal system which the law may not be interested in, in other words which are not legally relevant, but which are nevertheless relevant to psychology. For example, the reasons why certain people bring particular legal claims may not be legally relevant. However, it is still a question that is relevant to psychology's interest in understanding legal behaviour and therefore aspects of human behaviour. In these cases, the interaction between law and psychology is one-sided, with the legal context being relevant to psychology and therefore contributing to psychological theory but psychology not necessarily being relevant to law and therefore not contributing to changes in legal issues.

From the opposite angle, there are psychological assumptions which the law makes that are not centred on the psychological effects of the law or the legal thoughts and behaviours that are demonstrated in the legal context. Instead, the law may make various assumptions about general human thought and behaviour, creating the possibility for interaction between the two disciplines through psychology's relevance to law but not vice versa. The

case study of criminal retributive practices in Chapter 4 can be used as an example. There, one of the assumptions made by law was the ability of humans to exercise rational control. In this instance, the possibility for interaction between law and psychology is one-sided and occurs this time only due to psychology's relevance to law. Were psychology to prove that humans are not able to exercise rational control, this allows for interaction between psychology and law only through the fact's relevance to law. The fact itself, that humans cannot exercise rational control, is not a fact about the law and therefore there is little that psychology can learn from the law regarding this.

Notably, however, law can also make assumptions concerning its psychological effects or regarding the thoughts and behaviours that are demonstrated in the legal context. In these instances, the same topic can provide the potential for psycho-legal research both because law is relevant to psychology and because psychology is relevant to law. Following on from the above examples of how law can be relevant to psychology, it may also be relevant to the legal issue of legal reform that youths who face severe processing are more likely to engage in future criminal behaviour. Similarly, it may be relevant to questions of legal reform if psychology discovers that jurors or judges take account of extra-legal factors when making their legal decisions. Small's example of testing for the therapeutic or anti-therapeutic effects of law, as mentioned above, demonstrates this point too. For the internal/external divide, psychological information on 'internal' and how these compare with 'external' human thoughts and behaviours demonstrated in the legal system can be relevant to the legal interest in understanding the nature of law. In such cases, it is possible for the interaction between law and psychology to move in both directions, with psychological findings about the law being relevant to both psychology and law.

However, while there are certain topics which overlap in the sense that a psychological or legal perspective could be taken towards it, the perspective chosen will nevertheless have implications for how the topic is researched. This reflects the point made in Chapter 5 that there are many different perspectives that can be taken to the same subject of research, such as the recidivism rates of youth, which will affect the type of questions that are asked and the explanations or answers to these questions which are deemed to be adequate.

The main difference is that from a legal perspective, the interest is in testing the accuracy of psychological assumptions which the law makes with regard to its psychological effects or the thoughts and behaviours of legal actors. Thus, there is little interest in the psychological mechanisms or psychological theory behind the issue, and instead the focus lies in using psychology to test whether the legal assumption is correct and if not what the implications for the law are. For example, with regard to the overlapping topic of whether criminal youths who face more severe legal processing are more likely to reoffend, from a legal perspective, the questions of interest include how to ensure that the law processes the crimes of youths fairly and potentially how to create a legal system which helps to reduce recidivism or at least not increase it. Psychological theory with regard to criminal behaviour and the potential factors which influence recidivism under this approach would be used mainly to support hypotheses for potential legal factors which may increase recidivism or to provide explanations for findings that such factors do increase recidivism.

From a psychological perspective, the interest is in using the psychological effects of the law and the thoughts and behaviours demonstrated in the legal context to test and develop psychological theory and knowledge. In this regard, there is little interest in testing the legal assumption itself and instead interest in whether evidence from the legal context supports or contradicts psychological theory and what the implications of this are for psychological theory. To use the same example of recidivism of youths, the question of interest is what the psychological mechanisms behind the effect of legal processing on recidivism of youths are and whether it supports or contradicts current psychological theory regarding human behaviour. Psychological theory here is not used to support hypotheses of psychological factors which may be relevant to the legal issue nor to explain why such psychological factors may be relevant to the legal issue. Instead, the findings from the legal context are used to develop psychological theory itself.

This is the same when considering psycho-legal research which centres on particular legal concepts or constructs. Building on the example of the internal/external divide, it is possible to analyse this from a legal or a psychological perspective. From a legal perspective, interest lies in using this divide to provide a greater understanding of the nature of law. From a psychological perspective, interest lies in using this divide to provide

a greater understanding of human agency and the human thoughts and behaviours involved within each category.

As well as differing in the focus of the questions which are asked for overlapping subjects of research, the branches also differ in their methodological concerns. Since in the main, it has been the Legal Perspective Branch that the psycho-legal literature and case studies have focused on, the central methodological issues of a Legal Perspective Branch have for the most part already been discussed. They relate generally to the requirement that the psychological fact being provided by the psycho-legal study is in fact relevant to the legal issue and that account is taken of how the psychological fact is relevant when using the psychological fact to suggest specific legal implications. One common critique that is made to psycho-legal research which takes the legal perspective is that the psychological findings lack external validity – that the psychological fact is not generalisable to the legal context. Morse's critique in Chapter 4 of the experiments which psycho-legal studies rely on to prove that the law makes an inaccurate assumption of the folk psychological view of the person can be taken as an example of this. It is because such experiments rely on behaviours such as flexing a finger rather than behaviours involved in committing a crime that Morse questions the external validity of the experiment and therefore its ability to provide legally relevant knowledge.

Conversely, the relevance of psychology to law and therefore the generalisability of the research findings to the legal context would not be seen as a methodological issue for the psychological perspective. This is because from a psychological perspective, the importance of psycho-legal research is instead whether and how the law is relevant to psychology. Here more emphasis would be placed on what is special about law from a psychological perspective and therefore what it can add to psychological theory regarding human thought and behaviour. The main methodological issue would therefore be the generalisability of the findings to psychological theory. Psycho-legal research on eyewitnesses can be taken as an example. An experiment which finds that participants make more accurate identifications in sequential rather than simultaneous line-ups would need to prove that such results are generalisable to the legal context by proving that this is the case for the general population and that the procedures used were similar to the line-up procedures that are actually used by police. However, from a psychological perspective, it

is not essential to ensure that the results are generalisable to the legal context. Instead, the findings from such an experiment may still be able to contribute to psychological theory by providing evidence of the identification accuracy of certain portions of the population with regard to the specific identification procedures that were tested in the study.

There are therefore important differences between the Psychological and Legal Perspective Branches of the Inter-Disciplinary Approach. Focusing only on the Legal Perspective Branch can lead to the neglect of potential topics of research which can bring law and psychology together specifically through the law's relevance to psychology. It can also lead to psycho-legal research which takes only a legal focus to the types of questions asked about the topic when a psychological focus is available to be taken, therefore bypassing the potential of psycho-legal research to lead to the development and testing of psychological theory.

While Chapter 5 established the general Inter-Disciplinary Approach, this chapter has brought attention to the emphasis that tends to be placed by psycho-legal literature on only one branch of this approach – using psychology to be relevant to law. This has been identified as the **Legal Perspective Branch** of the Inter-Disciplinary Approach. Here, 'Why' psychology and law are brought together is that it is possible that psychology is relevant to law. 'How' they interact is that psychological assumptions which the law makes are tested. The 'To What Ends' that follows from this is that psychological knowledge can impact on the law to the extent that the psychological knowledge is legally relevant. Contrasting with this is what can now be established by the thesis as the **Psychological Perspective Branch** of the Inter-Disciplinary Approach. Here, 'Why' law and psychology are combined is that it is possible that law may be relevant to psychological issues. The 'How' of such an approach is to use the law as an example of a psychological variable, testing for the human thoughts and behaviours that are demonstrated by law or testing for the psychological effects which the law has. The 'To What Ends' is that law can be used as a variable to test and develop psychological theory, leading to change and development in psychology to the extent the law is relevant.

The establishment of the Psychological Perspective Branch addresses the remaining challenges that have arisen in the psycho-legal literature by specifying how law can

contribute to psychology and also what the particular benefits that arise from such an approach are. By relating psycho-legal research to the relevant findings concerning the methodology of social sciences discussed in Chapter 5, this thesis also provides reasons why attention should be drawn to the Psychological Perspective Branch. This is that an awareness of how psycho-legal research can contribute to not only legal but also psychological issues is one way in which to maintain the value neutrality of research by ensuring that one disciplinary perspective is not prioritised over another by psycho-legal research.

6.3 Identifying the Indicators of the Psychological and Legal Perspective Branches

Following the establishment of the Psychological Perspective Branch as one way in which psycho-legal research can be carried out, the indicators that can be used to evaluate whether a psycho-legal study is undertaking the Psychological or Legal Perspective Branch can be more comprehensively identified.

In terms of 'Why' psychology and law are being brought together, the way in which to test for whether a psychological or legal perspective is being taken is to identify whether the psycho-legal topic of research is framed as a legal or a psychological issue. This will indicate whether the study is interested in the legal issue, therefore how psychology is relevant to this, or in the psychological issue, therefore how law is relevant to this. There are several ways in which to identify this. Most indicative would be what the study considers to be the research problem or question that needs to be answered. To take the example of psycho-legal research on eyewitnesses, a study which focuses on due process issues or wrongful conviction as a problem that needs to be addressed would be framing the topic as composed of largely legal issues, and therefore demonstrating a legal perspective. In contrast, a study which focuses on issues of human memory or human perception would be framing the topic of eyewitnesses as a psychological one, therefore demonstrating a psychological perspective. Another way in which to distinguish how the topic is being framed is to note whether legal or psychological material is cited. Studies which focus on the legal issue are likely to cite legal case law or legal material, for instance legal case law on the admissibility of eyewitness evidence. Studies which focus on the

psychological issue are likely to cite research on general psychological theory relevant to the area, for instance psychological theory on memory retrieval.[7]

In terms of 'How' psychology and law are being brought together, the difference between the branches is slightly more difficult to test for. This is because particularly for topics which overlap in their ability for psychology to be relevant to law and law to be relevant to psychology, the method used can be the same. Using the example of eyewitnesses again, a study which tests whether eyewitnesses can identify a perpetrator accurately is testing the legal assumption but is at the same time also testing the more general human thought and behaviour of memory retrieval and identification. In this way, a study can often use the same method to test the psychological assumption made by law as the method that would be used to test the general human thought and behaviour demonstrated in the legal context. One way to differentiate the 'How' of these two approaches is therefore to consider what the study considers its methodological limitations and/or justifications to be. Studies under the Legal Perspective Branch would consider lack of ecological validity or ability to generalise to the legal setting as a methodological limitation. It would also consider a method which demonstrated greater likeness to the overall legal setting as a justification for carrying out this experiment. Conversely, studies under the Psychological Perspective Branch would consider lack of ability to generalise to other, non-legal contexts and settings as a methodological limitation. For instance, a psycho-legal study on eyewitnesses which takes the legal perspective would consider that an experiment which failed to replicate the legal setting, for instance not providing the participant with the same instructions that eyewitnesses are usually given, to be limited because it is not able to fully test for the assumption that the law makes. On the other hand, if the study approached the topic from a psychological perspective, interest would be in how the legal setting can be used to build on psychological theory. Factors specific to the legal context, for instance that the participant is provided with legal instructions, which contaminate the main psychological research question, for instance whether participants can accurately identify suspects of a

[7] It is noted that whether legal material or psychological theory is mentioned is an indicator used in Clatch, Walters, and Borgida, "How Interdisciplinary?" While this is a useful indicator of which approach is being taken, as specified, it is more indicative to consider how the issue is being framed by analysing what sorts of issues the study emphasises. It should also be noted that whether legal or psychological material is referenced is only a subset of the indicators which this section will go on to specify.

different race, would therefore be seen as limiting on the ability of the study to test general psychological theory.

In terms of the 'To What Ends' of the psycho-legal study, the main test between the two branches is whether the implications drawn from the results are implications for the law or for psychological theory. As above, it is possible that the same experimental results can lead to both legal and psychological implications. For example, an experiment may find that participants are less accurate in eyewitness identifications of suspects of a different race to the participant. This result could be used in the study to build on psychological theory regarding memory retrieval and identification of different races. Focusing on these psychological implications would be an indication of the Psychological Perspective Branch. The results can, however, also be used in the study to focus on the legal implications, for instance that identifications by a witness of a different race to the defendant should be inadmissible or that jurors should be given specific instructions with regard to such evidence. This would be an indication that the study is an example of the Legal Perspective Branch. Related to this, it is noted that even though general psychological theory may be mentioned in the study's implications, thus indicating that the study is framing the issue as a psychological one, this does not necessarily indicate that the study is seeking to draw psychological implications from law. It may be the case that psychological theory is being used to explain the results or support the study's hypothesis that psychological factors are relevant to the law. In this instance, psychology is being used to be relevant to law instead of the study using the law to test or develop psychological theory.

As a summary, the main indicators that identify between the Psychological and Legal Perspective Branch of the Inter-Disciplinary Approach to psycho-legal study are as follows:

1) **Framing**: Is the psycho-legal topic framed as a legal issue or a psychological issue? Related to this is whether legal material or general psychological theory is referenced.
2) **Implications**: Does the study focus on implications for the legal issue or for psychological theory? Related to this, if psychological theory is mentioned in implications, is this done to support the hypotheses regarding potential ways in

which psychology is relevant to the legal issue/provide explanations for the findings, or are the findings from the psycho-legal study used to suggest developments for psychological theory?

3) **Limitations**: Does the study emphasise the need for psychology to be relevant to law, for instance viewing the external validity of the psychological findings as a limitation or as methodologically significant? Or does the study emphasise the need for law to be relevant to psychology, for instance viewing the specifics of the legal setting that are not related to the main question of psychological interest as a limitation or as methodologically significant?

6.4 Re-testing the Prevalence of the Legal Perspective Branch

Formulating these indicators from a more detailed analysis of the possibilities of the Psychological Perspective Branch has importantly led to more comprehensive measures than those which have been used previously by authors who observe that psycho-legal research generally seems to prefer the Legal rather than the Psychological Perspective Branch.

It is noted that many of the commentators concerned with the observation of an overemphasis of the Legal Perspective Branch, were writing in the 1970s and therefore their observations are outdated.[8] The observations also remain general and do not use empirically based methods to test the question of which perspective may be predominant in psycho-legal research. While they observe that the legal perspective does indeed seem more prominent, little explanation for why this may be so is provided.

One recent study has attempted to use empirical methods to test the question of what sort of interdisciplinary approach is undertaken by psycho-legal research.[9] Nevertheless, it relies on simplistic measurements of whether psychological or legal concepts are cited or mentioned, of whether any empirical data is collected (considered to be evidence of the

[8] N. Vidmar, "The Other Issues in Jury Simulation Research: A Commentary with Particular Reference to Defendant Character Studies", *Law and Human Behavior,* 3(1–2) (1979), pp. 95–106; W. Weiten, and S. S. Diamond, "A Critical Review of the Jury Simulation Paradigm: The Case of Defendant Characteristics", *Law and Human Behavior,* 3(1–2) (1979), pp. 71–93.
[9] Clatch, Walters, and Borgida, “How Interdisciplinary?”.

psychological perspective) and of whether any limitations to the study are discussed (considered to be an indicator of the psychological perspective). These measures do not adequately test for the distinction between the Legal and Psychological Perspective Branches. The collection of empirical data can be used to test for the legally relevant psychological assumptions that are made, or for the psychological effects/thoughts and behaviours that are demonstrated in the legal context. Similarly, whether a concept from the other discipline is mentioned does indicate that the study is interdisciplinary in some way, it is more indicative to consider how the issue is being framed in terms of the research question posed. It should also be noted that whether legal or psychological concepts are referenced is only a subset of the other measurements which should be used as specified by the indicators established by this chapter. A section dedicated to limitations to a study tend to be associated with the psychological perspective due to the requirement to specify any limitations of empirical data research. However, since the collection of empirical data can be used by both the Legal and Psychological Perspective Branches, as discussed above, it is likely that both will also engage with a limitations section, again rendering this as a measurement unlikely to capture the differences between them. Instead of simply testing whether limitations of the study have been mentioned, it remains important to test for what the study considers the empirical limitations to be.

As such, this section will take jury decision making as an example of a topic of psycho-legal research which can be used to exemplify the distinction between the Psychological and Legal Perspective Branch. It will provide an example of how the new and improved indicators can be applied to empirically test the question of whether, and potentially why, the Legal or Psychological Branch of the Inter-Disciplinary Approach is preferred in psycho-legal research.

6.4.1 The Example of Jury Decision Making

Jury decision making is a popular area of study in psycho-legal research, with recent content analysis reviews of psycho-legal journals finding the topic to be among the most published.[10] The high proportion of psycho-legal research on juror decision making has

[10] L. E. Wylie et al., "Four Decades of the Journal Law and Human Behavior: A Content Analysis", *Scientometrics,* 115(2) (2018), pp. 655–693; K. Reed et al., "An Empirical Analysis of Law-

been noted in the past too, indicating that the topic enjoys relatively stable popularity.[11] Indeed, Bornstein in his analysis of the first 20 years of published research in the journal *Law and Human Behaviour* found that 19.4% of these articles involved jury simulations.[12] Research on jury decision making is broad in range, with studies investigating the influence of various factors on juror decisions, such as the characteristics of litigants, the characteristics of jurors as well as procedural factors such as judicial instructions and exposure to pretrial publicity.[13]

As well as its popularity, jury decision making is chosen for this analysis due to the fact that it is an overlapping topic for which it is possible to take either a legal or psychological perspective. Whether jurors make decisions according to the law has relevance for all legal trials that use jurors and impacts on important legal issues such as the ability to provide a fair trial. Likewise, human decision making is a topic of interest for psychology, and jury decision making in particular has the potential to increase psychological knowledge and theory regarding how decisions are made in groups, how judgements of responsibility and punishment are made, how rules and instructions from authority figures such as judges influence such decisions, etc.

Building on the new indications, the example of jury decision making will be used to demonstrate how the differences between a legal and psychological perspective can be detected in practice. Taking first the Legal Perspective Branch, a study would frame the research question as whether jurors make their decisions according to the legal rules. The study would stress the legal implications of the psychological findings. These implications would be whether the law has made inaccurate assumptions regarding the ability of jurors to make decisions according to the law, and how this would impact on legal issues, for

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Psychology Journals: Who's Publishing and on What?", in M. K. Miller, and B. H. Bornstein (eds.), *Advances in Psychology and Law: Volume 3*, (Cham: Springer International Publishing, 2018), pp. 285–299.

[11] V. J. Konečni, and E. B. Ebbesen, "External Validity of Research in Legal Psychology", *Law and Human Behavior*, 3(1–2) (1979), pp. 39–70; Bray, and Kerr, "Use of the Simulation Method".

[12] B. H. Bornstein, "The Ecological Validity of Jury Simulations: Is the Jury Still Out?", *Law and Human Behavior*, 23(1) (1999), pp. 75–91.

[13] For useful overviews of psycho-legal research on jury decision making see Weiten and Diamond, "A Critical Review of the Jury Simulation Paradigm"; D. J. Devine et al., "Jury Decision Making: 45 Years of Empirical Research on Deliberating Groups", *Psychology, Public Policy, and Law*, 7(3) (2001), pp. 622–727.

instance the right to a fair trial. The study would also emphasise the limitations as how generalisable the psychological findings are to the legal context. Specifically for jury decision making, that if a simulated experiment is used and therefore the situation is different for the participants than it is for a real jury (e.g. the trial is shorter in the experiment) or the participants are from a particular sample which is not representative of the jury population (e.g. all the participants are selected from the student population), the study would emphasise the requirement that safeguards are in place to ensure that such results are nevertheless generalisable to the legal context so that they can be used to suggest legal implications.

This compares to the issue of juror decision making from a psychological perspective. Here, the research question would be framed as what can be learned from jury decision making about the psychology of human decision making. With regard to jury decision making, the questions of interest would include what the psychological mechanisms are behind the judgements and decisions that people make about third parties on issues such as responsibility, punishment, and the psychological mechanisms behind how people make group and/or individual decisions about such issues. It would therefore be the psychological implications of the legal context that are stressed and the limitations would be specifics of the legal context that make generalising any psychological findings difficult. Specifically for juror decision making, that if a simulated experiment is used to test psychological theory on how people make decisions on responsibility, the fact that participants are asked to provide only binary decisions of responsible or not responsible may be a limitation to testing the more general theory. In contrast to the Legal Perspective Branch, the ability to replicate the real-life legal context in full is relatively unimportant to the Psychological Perspective Branch. Psychological insight can still be gained from a simulated experiment which focuses on replicating only one aspect of juror decision making, for instance whether the personal characteristics of a third party affects judgements regarding their responsibility for a criminal act.

Keeping these differences in mind, an empirical analysis will be carried out on psycho-legal research on the topic of jury decision making, using the Framing, Implications, and Limitations indicators specified above to investigate the questions of whether such

research demonstrates a preference for the Legal or Psychological Perspective Branch and, if so, why this may be.

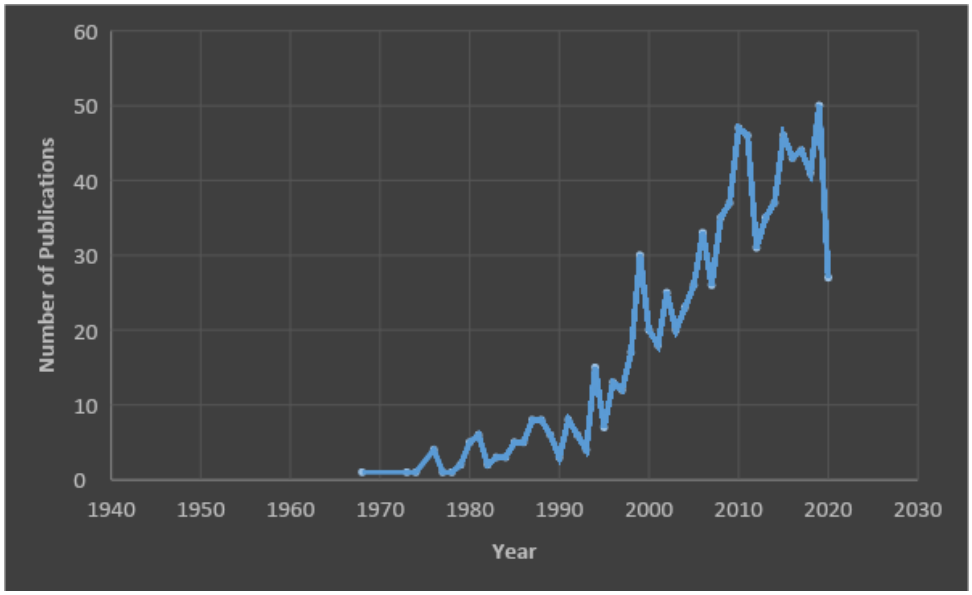
6.4.2 Method

The three journals of *Law and Human Behavior, Psychology, Public Policy and Law,* and *Psychology, Crime and Law* are considered as three of the most prominent journals publishing on psycho-legal research and are thus often used in content analysis studies seeking to research the overall trends that can be found in psycho-legal research.[14] As such, this chapter will also use these journals in order to analyse the interdisciplinary approach taken by psycho-legal research on juror decision making.

The analysis will focus on articles published during the years 2009-2019. This period is chosen as it is over the past decade that research into jury decision making has increased and remained at high levels of publication. This is demonstrated by Figure 1, which portrays the search results from the database Scopus of all social science and psychology publications which include the terms 'juries' and 'decision making' in their title, abstract or keywords.[15]

[14] For instance, Reed et al., "An Empirical Analysis of Law-Psychology Journals?"; Wylie et al., "Four Decades of the Journal Law and Human Behavior"; Clatch, Walters, and Borgida, "How Interdisciplinary?". As specified in the latter, *Law and Human Behavior* and *Psychology, Public Policy, and Law* are the two highest-impact journals in psychology and law.
[15] This Scopus Search was carried out on 29th May 2020. As such, the decrease in publications from 2019-2020 can be explained by the fact that the current search only accounts for the articles published in the first half of the 2020 year.

Figure 1. Publications on Jury Decision Making



The topic of juror decision making is broad, and any article that focuses its study on testing the question of how jurors decide on legal issues is included in the analysis. This therefore includes studies researching the effects of particular variables on juror decision making, how jurors make decisions on particular issues such as capital punishment or financial compensation for injury, and how jurors perceive or evaluate particular pieces of legal evidence. In order to select the articles, the database Scopus was used to search for all articles from the three journals which included the terms 'juries' and 'decision making' in their title, abstract, or keywords from the years 2009-2019.[16] The search resulted in a total of 39 articles from *Law and Human Behavior,* 19 articles from *Psychology, Public Policy, and Law,* and 22 articles from *Psychology, Crime and Law*. Articles which, while including juries and decision making in their title, abstract, or keywords, were nevertheless not researching jury decision making as their main topic of interest (e.g., articles which considered judgements made by forensic experts regarding juror instructions) were excluded. 3 articles from *Law and Human Behavior,* 2 articles from *Psychology, Public Policy, and Law,* and 2 articles from *Psychology, Crime and Law* were therefore excluded. This resulted in a total of 73 articles which were included in the analysis.[17]

These articles were evaluated using the three Framing, Implications, and Limitations indicators formulated above; how the research article frames the issue, whether legal or psychological implications are drawn from the study, and whether the study considers ecological validity and generalisability to the legal context or generalisability to psychological theory to be a methodological limitation. One article, "Jurors' cognitive depletion and performance"[18], can be taken as an example to demonstrate how it can be evaluated through these indicators.

Considering first the Framing indicator, the author frames the topic as both a legal and a psychological issue. Thus, to begin the article, focus is first on the legal context by mentioning jury reforms, the issue of ethnic minority representation in juries and the

[16] This Scopus Search was carried out on 3rd June 2020.
[17] A full list of the Scopus search results and the articles included and excluded in the analysis can be found in Appendix A.
[18] Liana Peter-Hagene, "Jurors' Cognitive Depletion and Performance during Jury Deliberation as a Function of Jury Diversity and Defendant Race", *Law and Human Behavior,* 43(3) (2019), pp. 232–249.

potential that diverse juries can reduce racial bias in legal decisions. This demonstrates a legal perspective approach because the emphasis is on extra-legal biases that may influence jurors. However, the article also moves on to mention two psychological theories that are relevant to this topic; cognitive depletion theory and social identity theory, specifying how research on the legal context of jury decision making is different to the current studies that exist with regard to these theories. The author emphasises how jury research focuses on judgements about other people and that jurors may be particularly motivated to reach fair verdicts and therefore resist the effects of depletion on their cognitive performance. This can be seen as demonstrating a psychological perspective because the author is referencing psychological theory, drawing attention to the more general psychological aspects of interest to this issue. The author also specifies what is special about the legal context, in this case the fact that legal judgements are made about others, and thus highlighting what psychological theory can potentially learn about human decision making from the legal context.

When moving to the next indicator, it is therefore perhaps surprising that the author does not draw out the implications of the findings for psychological theory but instead focuses only on legal implications. The author finds that jurors in racially diverse juries are more depleted, as hypothesised under social identity theory, yet that this does not affect jurors' cognitive performance. This is noted to support previous findings that depletion effects do not result from insufficient resources but rather reduced motivation. However, the author does not emphasise that the results of this study therefore suggest that reaching legal decisions that will have legal effects on others can be added to the existing psychological findings as a potential factor that increases motivation therefore offsetting depletion effects. In other words, the author does not highlight the potential implications for general psychological theory that arise from this study into juror decision making. Instead, it is the legal implications of the study that are stressed. The author states the applicability of the results to jury policy recommendations and how the results imply that racially diverse juries should be encouraged. The conclusion focuses on this aspect of the study, ending by stating that "racial diversity in juries not only ensures representation of minority voices,

but it also motivates all jurors to perform their duty diligently and thoughtfully regardless of defendant race".[19]

Regarding the Limitations indicator, ecological validity is mentioned prominently by the author as the main methodological concern of the study. It is considered as a strength that the sample size was diverse in age and background and therefore more likely to represent a jury pool, that the material for the study was based on a real trial, and that jurors deliberated to reach a unanimous verdict as is the case in real trials. The limitations stated by the author focus on the extent to which the study replicates the real-life legal situation. The author mentions that the jurors were only allowed a short time to deliberate, that the staged juror participants were given instructions on how to act, and that the evidence was ambiguous meaning that one verdict was not necessarily more accurate than another. Thus, it is the generalisability of the findings to the legal context and therefore the relevance of the psychological findings to the legal issue of whether an accurate legal verdict is reached which the author is concerned with. In contrast, the author does not mention any potential limitations to the study that would affect drawing general psychological implications from the findings.

An evaluation of this study through these three indicators therefore demonstrates that for the most part a legal perspective approach is taken, and that while psychological theory is mentioned, this is mostly to support or explain the results. While the results themselves do suggest some interesting implications for psychological theory, the author does not go into this but instead focuses on the legal implications.

Table 1 presents the evaluation of this article. The full analysis of all articles can be found in Appendix B, which are evaluated in the same way.

[19] Peter-Hagene, "Jurors' Cognitive Depletion and Performance", p. 247.

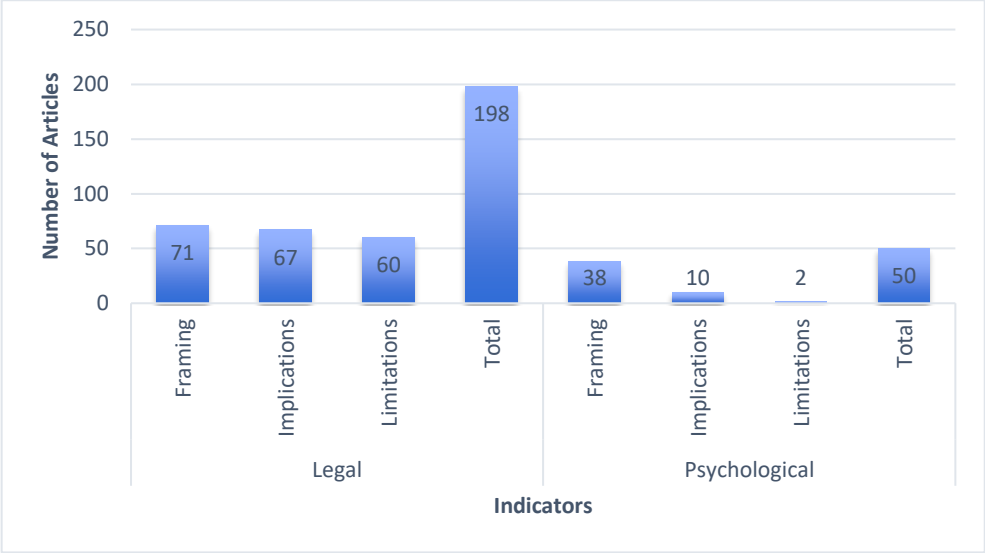
Table 1. Analysis of Published Articles on Jury Decision Making

Article	Legal			Psychological		
	Framing	Implications	Limitations	Framing	Implications	Limitations
Jurors' cognitive depletion and performance	Legal Focuses on legal context by mentioning jury reforms, the issue of ethnic minority representation in juries and the potential that diverse juries can reduce racial bias in legal decisions	Legal Uses results to provide legal implication	Legal Stresses importance of ecological validity and ability to generalise results to the legal context	Psychological Mentions two psychological theories that are relevant on this topic specifying how research on the legal context of jury decision making is different	No	No

6.4.3 Findings and Analysis

Overall, the results show that the articles analysed demonstrate a strong emphasis on the Legal Perspective Branch and in comparison, a very weak emphasis on the Psychological Perspective Branch. Figure 2 presents the findings, showing the number of articles which engaged with the different indicators. Framing, Implications and Limitations Indicators are displayed separately within the Legal and Psychological Perspective categories. The total is the sum of the number of articles demonstrating each indicator.

Figure 2. Number of Articles demonstrating Legal and Psychological Indicators.



Almost all articles (excluding two) framed the issue of juror decision making as a legal one by emphasising the importance of ensuring that jurors make decisions according to the law and do not allow extra-legal biases to affect decisions on legal verdicts. How juror decision making impacts on the right to a fair trial or the problems of wrongful conviction was often mentioned in the introductions of the articles. Similarly, many articles in their discussions and/or conclusions emphasise the legal implications of the findings. The majority of studies found that participants were influenced by extra-legal factors in their decision making. This would be discussed as reasons that legal reform should be considered to ensure fairer jury decision making. For a study which found that participants' decision to convict were not influenced by extra-legal factors, this again was related back to the legal debate around the admissibility of neuroimages in court.[20]

Correspondingly, the majority of articles (excluding 13) mentioned ecological validity and generalisability to the legal context specifically as a potential limitation to the study. This concern is also found in general commentaries on the state of psycho-legal research on juror decision making, where the main methodological issue that seems to be discussed is the problem of ecological validity. This was thus the topic of a special issue in 1979 in *Law and Human Behavior*,[21] and again in 2011 in *Behavioral Sciences and the Law*.[22]

In contrast, there were only 38 articles of the 73 which framed the issue as a psychological one. This was mostly done in the introductions of articles, where these studies highlighted psychological theories and how the legal context is a particularly suitable variable to test or develop these theories due to the type of decision making which occurs in the legal

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[20] N. J. Schweitzer et al., "Neuroimages as Evidence in a Mens Rea Defense: No Impact", *Psychology, Public Policy, and Law,* 17(3) (2011), pp. 357–393.
[21] See S. S. Diamond, "Simulation: Does the Microscope Lens Distort?", *Law and Human Behavior,* 3(1–2) (1979), pp. 1–4.
[22] See W. J. Caprathe, "Commentary: Participant Differences and Validity of Jury Studies", *Behavioral Sciences & the Law,* 29(3) (2011), pp. 328–330. See more generally H. S. Field, and N. J. Barnett, "Simulated Jury Trials: Students vs. 'Real' People as Jurors", *The Journal of Social Psychology,* 104(2) (1978), pp. 287–293; K. C. Gerbasi, M. Zuckerman, and H. T. Reis, "Justice Needs a New Blindfold: A Review of Mock Jury Research", *Psychological Bulletin,* 84(2) (1977), pp. 323–345; Bornstein, "The Ecological Validity of Jury Simulations?"; S. S. Diamond, "Illuminations and Shadows from Jury Simulations", *Law and Human Behavior,* 21(5) (1997), pp. 561–571; J. G. McCabe, D. A. Krauss, and J. D. Lieberman, "Reality Check: A Comparison of College Students and a Community Sample of Mock Jurors in a Simulated Sexual Violent Predator Civil Commitment", *Behavioral Sciences & the Law,* 28(6) (2010), pp. 730–750.

context. For example, in "A social judgment?",[23] the authors consider the psychological theory of contrast effects. Contrast effects concern heightened perceptions of the difference between two similar stimuli when they are observed simultaneously. The theory behind contrast effects suggests that people use contrasts to help guide social judgments about other people. The authors emphasise how legal decisions which encompass decisions on responsibility or guilt for crimes that differ or 'contrast' in severity is a suitable context in which to test psychological theory on contrast effects.

Even fewer articles drew psychological implications or considered psychological limitations to be a relevant concern. Only 10 articles stated psychological implications to be drawn from the law and only 2 articles considered the inability to generalise to psychological theory as a potential methodological limitation. Instead, psychological theory was mainly used to support hypotheses, justifying why psychology is likely to be relevant to the legal issue, or to explain the findings, providing a reason based in theory for why psychology is relevant to the legal issue. This was interesting as it suggests that even when articles frame the issue as a psychological one, the study nevertheless takes more of a legal perspective approach to the 'How' and 'To What Ends' of combining law and psychology. As an example of how a more psychological perspective could have been taken in the above study "A social judgment?", the finding that contrast effects are demonstrated in the context of legal decision making can be used to build on the theory of contrast effects by suggesting that contrast effects can be expanded to judgements and decision making on issues of responsibility or rehabilitation, and following from this that such heuristic biases seem to occur even with judgements that will potentially have a large impact on another individual.

The difference between the number of articles which drew psychological implications and the significantly lower number of articles which considered psychological limitations to be a matter of concern is also of interest. It would be expected that articles which draw implications for psychological theory from the study to be concerned with the potential limitations that exist regarding generalising from the findings to general psychological

[23] M. E. Butterfield, and A. N. Bitter, "A Social Judgment? Extralegal Contrast Effects in Hypothetical Legal Decision Making", *Psychology, Public Policy, and Law,* 25(1) (2019), pp. 30–37.

theory. These findings can be explained through the observation that authors at times highlighted future studies which could build on the current results and focus on other decision-making settings which are similar to the legal one, in this way drawing psychological implications from the study. In other words, while the current studies analysed may not have focused on testing psychological theory, therefore the authors did not consider psychological limitations of the current study to be an issue, the authors nevertheless were aware that the results may be relevant to future studies which wish to focus on using the legal setting to build on psychological theory. For example, in "Context influences interpretation",[24] the authors emphasise that the study's findings, that judgements of confidence and accuracy of an eyewitness are often conflated, are also relevant to other situations where similar judgements have to be made e.g., intelligence analysts. The fact that witnesses who express confidence in their knowledge or observations tend to be assumed to be accurate could have implications for the work of others who also depend on information from third party sources. Psycho-legal studies which point out these implications can be seen to be partially demonstrating a psychological perspective. They are using the legal context to suggest how future research can test these implications to build and develop wider psychological theories, even if they are not currently directly testing the psychological theory and therefore are not concerned with psychological limitations of the current study.

The most significant result, however, was the difference in the large number of articles which overall showed a legal perspective compared to the small number of articles which showed a psychological perspective, highlighting that psycho-legal research does generally seem to emphasise legal rather than psychological issues that occur at the intersection of law and psychology. This aligns with the emphasis that the Mainstream Proposal usually places on using psycho-legal research to test for legal assumptions and therefore make an argument for legal reform.

Indeed, rather similarly to the case studies of eyewitnesses and criminal retributive practices, the psycho-legal research on jury decision making can be seen to frame and test the legal issue often in a particular way that tends to give the largest scope for psycho-legal

[24] D. K. Cash, and S. M. Lane, "Context Influences Interpretation of Eyewitness Confidence Statements", *Law and Human Behavior*, 41(2) (2017), pp. 180–190.

research to use psychology to make a claim for legal reform. As has been noted by others, the legal requirement for juror decision making is that jurors reach reasonable decisions according to the law and the evidence provided.[25] As long as the juror decision can be explained or justified based on the legal evidence provided, it is legally irrelevant whether the decision could also be demonstrated to be influenced by other factors. In other words, the legal requirement does not exclude the possibility that juror decisions can be explained by other factors, as long as it can be explained by law, and thus as long as the decision is made within the scope of the law.

In order to test whether the law has made an inaccurate assumption regarding the legal requirement that jurors make legal decisions according to the law, the question to test therefore is whether the jury has been influenced by extra-legal factors to the extent that they cannot make a decision that is within the scope of the law. There are several ways a psycho-legal study can test for this, such as whether the participants' legal decisions can be supported by the legal evidence, or whether the participants' legal decisions conform to the same decisions that are reached by legal experts.[26] Instead, the majority of psycho-legal studies in this analysis simply tested for whether the participants' legal decision or judgement could be correlated or shown to be partially influenced by extra-legal factors.[27] The studies did not compare the participants' legal decisions or judgements with an expert or with the legal decision which would be expected to be reached according to the evidence provided. The psychological inaccuracy which these studies are testing is therefore whether the participants' decisions have been influenced by extra-legal factors, and not whether participants' decisions have been influenced by extra-legal factors to the extent that they cannot make decisions according to the law. As well as not testing the legal assumption which is made by the legal requirements, this particular framing of the legal issue leads to a greater likelihood of finding that there is a significant influence of extra-legal factors than a study which seeks to find if there is a significant influence of

[25] See for instance Bornstein and Greene, "Jury Decision Making", p. 64.
[26] Supra, Bornstein and Greene, p. 64.
[27] Articles which did test for strength of evidence or 'accuracy' of decisions were present but were in the minority. These minority articles included: K. Park, "Estimating Juror Accuracy, Juror Ability, and the Relationship between Them", *Law and Human Behavior,* 35(4) (2011), pp. 288–305; D. J. Devine et al., "Strength of Evidence, Extraevidentiary Influence, and the Liberation Hypothesis: Data from the Field", *Law and Human Behavior,* 33(2) (2009), pp. 136–148; Schweitzer et al., "Neuroimages as Evidence".

extra-legal factors only over and beyond the influence which legal factors have on participants' decisions.

However, it is possible that the legal issue which the psycho-legal studies are addressing is not what the legal requirements regarding juror decision making are but what they should be. Thus, it may be that these studies consider that particular extra-legal factors which they are testing for, such as the race of the defendant or pre-trial publicity, should not influence juror decisions at all, even if such decisions can be justified by the legal evidence, because this would be unfair or unjust. While this may be the case, it is interesting that nevertheless these studies rarely enter the debates that would be relevant to this issue, such as what the role of the jury is particularly with regard to representing the community's viewpoints and moral sentiments.[28] From this perspective, juror decisions that are correlated with the influence of pretrial publicity would not be seen as problematic (if such decisions can also be supported by the legal evidence) but instead more simply as decisions which reflect the community's viewpoints and sentiments. This emphasises how the studies analysed also seem to define the issue of what the role of a jury should be in a particular way so that the psychological finding of any extra-legal influence is more likely to lead to an argument that the legal requirements should be reformed.

The current analysis suggests that this almost one-sided interest in the legal perspective may also be self-generated, such that once several studies begin to take the Legal Perspective Branch, future studies continue to develop the questions raised by this mainstream approach. It is thus noted that many articles focused on citing other psycho-legal studies on the same topic and not on more general psychological studies. For instance, in "Improving the effectiveness of the Henderson instruction safeguard",[29] the majority of empirical studies cited were on the specific topic of eyewitnesses and tested the question of whether jurors can accurately evaluate eyewitnesses.

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[28] See e.g., N. N. Minow, and F. H. Cate, "Who Is an Impartial Juror in an Age of Mass Media?", *American University Law Review,* 40(2) (1991), pp. 631-664, noting that historically it was desired that the jury was composed of individuals who did know the facts of the case and details about the parties, and that there is little consensus on what an 'impartial' jury really is.

[29] A. M. Jones, and S. Penrod, "Improving the Effectiveness of the Henderson Instruction Safeguard against Unreliable Eyewitness Identification", *Psychology, Crime & Law,* 24(2) (2018), pp. 177–193.

When considering why psycho-legal studies rarely use results to develop general psychological theory, one potential reason may thus be because there exist a large number of studies on the specific question of the extent to which jurors may be influenced by extra-legal factors in their decision making and therefore already a lot of literature to engage with that focuses purely on the issue as it is relevant to the legal context. In this way, it could be that when the majority of psycho-legal literature emphasises research on the legal perspective question of whether jurors are able to make decisions according to law, this leads to a type of exponential growth whereby it is this particular question which continues to be added to and developed by researchers. Indeed, it was often the case that the future avenues of research that were suggested by the studies remained within the same perspective, pointing out ways to perhaps more accurately measure the same variables that the study sought to test or to expand the research by changing the experimental methods slightly and testing whether the same results would be found when e.g., the crime is changed or when a different group of participants are used.

This leads to a somewhat narrow approach whereby psycho-legal studies appear to engage in jury specific research, seeking to discover all the psychological factors that are relevant to juror decision making in particular. This seems to obscure the potential of the Psychological Perspective Branch to this topic which would seek to build not only on psychological theory behind jury decision making specifically but also psychological theory behind human thought and behaviour in general.

The results show that while most articles framed the issue in a legal way, some at the same time did frame it as a psychological issue by citing general psychological theory. Nevertheless, fewer articles drew any psychological implications from the study. Another possible reason that psycho-legal studies rarely use their results to build on psychological theory may be because once a legal perspective approach towards the ‘Why’ of bringing law and psychology together is taken, the authors consider any resulting findings to have uninteresting psychological implications.

The Legal Perspective Branch emphasises the relevance of psychology to law, in other words how current and existing psychological findings already suggest or can predict that the law may have made an inaccurate assumption regarding the ability of jurors to make

legal decisions correctly. By taking this approach, the possible psychological implications are limited to either results supporting existing psychological theory and therefore demonstrating a new context or situation which the theory applies to or contradicting existing psychological theory and therefore suggesting potential changes to the theory. The current articles, on the whole, found that results simply supported the findings that psychological theory already predicts. While these results can be used to develop psychological theory, it is true that findings which simply validate or support existing psychological theory have relatively little to add to the theory itself beyond a finding that the theory can be expanded to cover situations or contexts which perhaps the theory had not been applied to yet. When psychology and law are brought together due to psychology's relevance to law, it may therefore be difficult to find results that are considered to have interesting psychological implications.

However, the current articles analysed indicate that it is not because results simply support psychological theory that authors tend not to draw psychological implications. Examples can be found of studies whose results support psychological theory that go on to both use[30] and not use[31] the legal setting to build on psychological theory. The same can be said for studies which find that results contradict psychological theory. Thus, in "Dangerously Misunderstood",[32] the authors used the fact that findings did not support psychology theory to draw psychological implications from the legal setting. In this study it was found that there was no difference in the cognitive processing style of students versus non-students, contrary to previous psychological findings. The authors used factors specific to the legal setting to suggest why this may be so, hypothesising that the strength of evidence may override any individual differences. This is an example of the authors using the legal context to contribute to psychological hypotheses and theory. Conversely, in "Neuroimages as Evidence",[33] the study's findings contradicted psychological theory but the authors did not draw psychological implications and focused instead on the legal

[30] E.g., D. V. Zuj, M. A. Palmer, and E. Kemps, "Cigarette Cravings Impair Mock Jurors' Recall of Trial Evidence", *Psychology, Crime & Law,* 21(5) (2015), pp. 413–425.
[31] E.g., L. C. Peter-Hagene, and B. L. Bottoms, "Attitudes, Anger, and Nullification Instructions Influence Jurors' Verdicts in Euthanasia Cases", *Psychology, Crime & Law,* 23(10) (2017), pp. 983–1009.
[32] D. A. Krauss, J. G. McCabe, and J. D. Lieberman, "Dangerously Misunderstood: Representative Jurors' Reactions to Expert Testimony on Future Dangerousness in a Sexually Violent Predator Trial", *Psychology, Public Policy, and Law,* 18(1) (2012), pp. 18–49.
[33] Schweitzer et al., "Neuroimages as Evidence".

implications. This suggests that the emphasis on the Legal Perspective Branch is not due to researchers considering that results which simply confirm psychological theory is not of interest, since examples can be found where psychological implications were emphasised even when results simply supported existing psychological theory and also where psychological implications were not mentioned even when results contradicted psychological theory.

The analysis of this selection of articles therefore indicates that the prominent preference for the Legal Perspective Branch stems not from anything specific to the disciplines themselves, for instance that psychology has more to offer to law than law does to psychology, but is rather simply a preference that is made on the part of researchers. There are potentially many reasons why this preference is demonstrated. For instance, it may be that the majority of scholars publishing in these journals share similar academic backgrounds and training, resulting in research that is framed in line with this. It may also be a preference that is shared by funding organisations. Since these new indicators have been developed by this thesis in order to test for the newly established Legal Perspective/Psychological Perspective distinction in psycho-legal research, an investigation into the reasons for the preference demonstrated is an important avenue for future research. While there are some reviews that have investigated factors such as author gender or author institution, these reviews have been limited to an analysis of psycho-legal research in general and not an analysis into whether these factors can explain the specific preference for the Psychological Relevance Branch which has been identified here.[34]

While the question of why one Branch is more prevalent than the other is of interest in terms of understanding the practical challenges to particular approaches to interdisciplinary research such as specific training requirements or funding issues, it is nevertheless of less relevance to the main aim of this thesis which is to articulate the potential possible ways in which law and psychology can be brought together. The current analysis provides a preliminary answer to this by indicating that there is nothing specific to the disciplines to suggest that psychology cannot or has less to learn from law than law has to learn from psychology.

[34] See, for example Wylie et al, “Four Decades of the Journal Law and Human Behaviour”.

It is noted that there are several limitations to this analysis. Firstly, it covers only a sample of psycho-legal articles, specifically on the topic of juror decision making and only from the selected journals over the past decade. The results nevertheless indicate a surprisingly strong tendency towards the Legal Perspective Branch. This supports previous general observations that have been made, and encourages future research which can apply these indicators to a broader range of topics and journals, potentially also leading to increased knowledge regarding the reasons behind the dominance of one approach.

In summary, an analysis of jury decision making as it has been published in these journals demonstrates that the Legal Perspective Branch does dominate over the Psychological Perspective Branch. An evaluation of the studies suggests that this is likely to be because there is simply greater interest in the legal issues of juror decision making rather than the psychological issues. This may contribute to a type of exponential effect whereby the more psycho-legal studies that are produced within a legal perspective, the easier it becomes to build and develop on questions that are specific to the legal setting rather than generalising from the legal setting to psychological theory. To refer back to Chapter 5, these findings suggest that concerns of bias in research with regard to different research perspectives include not only that certain perspectives may be omitted but that if particular perspectives dominate, this can lead to a somewhat dangerous self-perpetuating effect. Another possible reason that the Psychological Perspective Branch to psycho-legal research on jury decision making is not popular may be the consideration that findings from the legal context which simply support existing psychological theory do not provide interesting psychological implications. However, the current results suggest that this is not the reason for the dominance of the Legal Perspective Branch, showing that studies drew interesting psychological implications both from findings that supported and findings that contradicted psychological theory. While it is noted that the undertaking of the psychological perspective may depend on practical issues such as the training and background of the researchers involved or the funding provided, what the results emphasise is importantly that the possibility of the Psychological Perspective Branch exists.

6.5 Summary and Conclusion

This chapter has analysed the Psychological Perspective Proposal as the remaining proposal from the psycho-legal literature to be considered. It has emphasised that this proposal is essentially a challenge that psycho-legal research focuses on only one of two branches of the Inter-Disciplinary Approach. This chapter has therefore established two different branches of the Inter-Disciplinary Approach which are available for psycho-legal research. The first is the Legal Perspective Branch, which focuses on the possibility that psychology may be relevant to law. The second is the Psychological Perspective Branch, which focuses on the possibility that law may be relevant to psychology. The chapter has gone beyond the psycho-legal literature by detailing what each branch involves in terms of 'Why', 'How' and 'To What Ends' the disciplines are being brought together, and therefore how they differ from each other. It has established that the 'Why' of the Legal Perspective Branch is that psychology could be relevant to empirical and/or normative legal issues, 'How' is that psychology provides this relevant information, 'To What Ends' is that the legal issue changes to the extent that the psychological information provided is relevant. In contrast, the 'Why' of the Psychological Perspective Branch is that law can be relevant to psychology through the human thoughts and behaviours that are demonstrated in the legal context or through the psychological effects that the law has, the 'How' is that the law provides this relevant information, the 'To What Ends' is that the legal context can be used to test, build, and develop psychological theory to the extent that it is relevant.

From this, the chapter has established new indicators which can be used when testing whether a psycho-legal study is carrying out research under the Legal or Psychological Perspective Branch. These indicators were applied for the first time to an empirical study on the psycho-legal topic of juror decision making. The findings indicated that psycho-legal research in this area does still focus on the Legal Perspective Branch. The analysis also supported the prediction that this is because more interest from researchers exists for the legal rather than psychological issues of psycho-legal topics, and not because there is inherently less possibility for psychology to learn from law than for law to learn from psychology. This emphasises that the Psychological Perspective Branch is indeed a potential approach that psycho-legal research can take. This chapter has also highlighted how the establishment of the Psychological Perspective Branch and therefore the emphasis on how psycho-legal research can contribute to not only legal but also psychological issues

addresses one of the value neutrality requirements discussed in Chapter 5, to ensure that no research perspective is prioritised over another.

Chapter Seven: The Trans-Disciplinary and Multi-Disciplinary Proposals to Psycho-Legal Research

This chapter will focus on analysing the Multi-Disciplinary and Trans-Disciplinary Proposals from the general interdisciplinary literature identified in Chapter 2. As has been commented by others already, the conceptualisations of such approaches remain abstract and general, with few going into detail regarding how exactly disciplines can be combined in these ways. Since psycho-legal research also tends to focus on the Inter-Disciplinary Approach of using psychology to contribute to legal issues, as demonstrated in Chapters 3, 4 and 6, there is relatively little that can be drawn from these case studies regarding whether and how law and psychology can interact in alternative ways. This chapter will therefore draw on other examples of interdisciplinary projects, the challenges that have been made towards the proposal for research to 'transcend' disciplinary perspectives in particular, and the relevant conclusions reached in Chapter 5 regarding this. These sources will be used to argue that, in reality, there is one main alternative approach to interdisciplinary research beyond combining disciplines together on a point of relevance. This is that disciplines can be brought together in an 'additive' way such that understandings can be enlarged and the assumptions of existing disciplines and perspectives exposed. This will be established by the thesis as the Additive Approach. The chapter will argue that there is no other method through which disciplines can be synthesised, and that research which addresses real-world problems is not an example of disciplinary boundaries being transcended or synthesised but is instead a form of disciplinary research undertaken from a new research perspective. Addressing real-world problems will be shown to be an example of another potential approach to psycho-legal research, which will be developed by this thesis as the Third Perspective Approach.

7.1 Real-world Problems as a New Research Perspective

As discussed in Chapter 2, the current literature on trans-disciplinary research emphasises the goal of using interdisciplinary research to solve real-world problems, for instance climate change or global poverty. Also emphasised is the requirement to involve non-academics in the identification of what these real-world problems are and how they can be

solved. The literature proposes that in order for research to address these issues, disciplinary boundaries must be transcended or synthesised.

Through an analysis of what is involved in researching real-world problems, it will be argued that the 'To What Ends' of researching real-world problems is not achieved by this proposed method, and that in fact researching real-world problems, as identified with non-academics, is essentially an example of a new form of disciplinary and not interdisciplinary research. It will first be demonstrated that there are many similarities that exist between research which focuses on real-world problems and research which is carried out within current existing disciplines. This undercuts the claim in the literature that such research is interdisciplinary, let alone trans-disciplinary, in nature. Using an example of a project which claims to be trans-disciplinary, it will be demonstrated that research into real-world problems does not transcend disciplinary boundaries, is also not an example of 'adding' disciplinary perspectives together, and is not necessarily subsumed into existing disciplines even if it makes references to the constructs of existing disciplines. This re-framing of what research into real-world problems requires will be used to demonstrate that there is indeed the possibility of an approach to psycho-legal research that differs from the Inter-Disciplinary. Importantly, this is not the Trans-Disciplinary Proposal but is instead what this thesis will establish as the Third Perspective Approach.

7.1.1 Similarities between Disciplinary and Real-World Problems Research

The first important observation is that research which focuses on real-world problems and using collaboration with non-academic actors in order to frame the research is basing itself on assumptions of what is important to study and how in the same way that any other discipline does. As discussed in Chapter 5, all disciplines focus on particular and different problems or questions, and on particular and different answers which are deemed to be adequate to these questions. In other words, they all assume different research perspectives which can be seen to guide the discipline, selecting the topics which are relevant to the discipline and the research methodologies which the discipline deems acceptable. The importance which the current trans-disciplinary literature places on focusing on particular real-world problems such as global poverty or climate change as experienced by non-academic participants can be seen as an emphasis that this offers a different and new

research perspective to the one that is usually taken by existing disciplinary perspectives. Thus, the establishment of this perspective brings awareness towards the fact that traditional disciplines tend not to be organised around researching solutions to real-world problems or around the perspectives of non-academics and therefore towards the possibility of a new perspective to research which does do this.[1] As such, it serves as an example of being aware of perspectives or approaches which may be omitted by current researchers or disciplines. This is one of the ways discussed in Chapter 5 in which to maintain the neutrality of research as a research community even if the production of knowledge always to a certain extent depends on certain assumptions and presuppositions.

The reasons provided in the literature for why research that focuses on real-world problems is trans-disciplinary is that such research handles complex problems which overlap with the knowledge that is produced by other disciplines. However, many existing disciplines handle complex problems which overlap with the knowledge that is produced by other disciplines. For instance, psychology's aim of understanding human thought and behaviour is complex and likewise the topic of law is equally so. Indeed, part of this complexity potentially arises due to the fact that its main topic of interest overlaps with other disciplinary perspectives. As has been demonstrated by previous chapters, both law and psychology overlap with each other with regard to their interest in topics such as human decision making, human ability to exercise rational control, and human perception. In other words, there is the possibility in many of the existing disciplines for the type of Inter-Disciplinary research elaborated on previously, whereby one discipline may be relevant to the questions asked by another. Nonetheless, both law and psychology are considered as separate disciplines and are not termed trans-disciplinary.

Another example may be the discipline of medicine, which interacts with many other disciplines such as biology, chemistry, neuroscience, psychology, and microbiology. Medicine can also be said to focus on the complex real-world problem of protecting human health and maintaining human life. However, while perhaps a lot of Inter-Disciplinary research may occur with medicine, such that psychological information on mental health

[1] Frodeman for instance in, *Sustainable Knowledge: A Theory of Interdisciplinarity*, emphasises the important role of peer review in current academic disciplines, arguing that "disciplinarity is grounded in the notion of peer review", pp. 22-23.

may be relevant and microbiological information regarding a new virus may be relevant, medicine is nevertheless not typically classified as a trans-disciplinary topic but instead as its own individual discipline.

The establishment of these different disciplinary research perspectives provides a particular type of benefit. This is that once a different research perspective is established, since it assumes a different presupposition of what is important to research and how it should be researched, it provides new types of knowledge that differ from the knowledge produced by other disciplines. This is in terms of the topics that are considered relevant to research and the questions about these topics that are considered important to ask.

To continue with medicine as an example, the benefits that arise from its perspective that research should focus on the maintenance of human life are that while it overlaps in many instances with research from other disciplines, it nevertheless provides new types of knowledge that would not be considered significant from the point of view of other disciplinary perspectives. For instance, both psychology and medicine are interested in mental illness. However, psychology focuses its research on understanding mental illness as an aspect of human thought and behaviour. As such, it may research a wide range of topics such as the effect of schizophrenia on reward processing and the relationship between gaze behaviour and brain activation in schizophrenia.[2] However, due to the different values which medicine as a research perspective presupposes, medicine would focus research questions on the same topic of mental health more specifically on how to diagnose mental illness and how to treat and prevent such mental illness. In these ways, medicine as a separate discipline engages with different research questions to those which psychology would consider relevant. More broadly, while medicine and psychology may overlap regarding their interest in the topic of mental health, medicine as a discipline covers a separate range of issues and topics to those of psychology, justifying its existence as a separate discipline even if there is some disciplinary overlap in terms of some of the issues that they are both interested in.

[2] See for instance P. E. Clayson et al., "Reward Processing in Certain versus Uncertain Contexts in Schizophrenia: An Event-Related Potential (ERP) Study", *Journal of Abnormal Psychology,* 128(8) (2019), pp. 867–880; M. J. Spilka et al., "Manipulating Visual Scanpaths during Facial Emotion Perception Modulates Functional Brain Activation in Schizophrenia Patients and Controls", *Journal of Abnormal Psychology,* 128(8) (2019), pp. 855–866.

What these examples of current disciplines indicate therefore is that the reasons that are usually provided for why a trans-disciplinary approach is required, that research needs to address real-life problems and that such problems are complex and can overlap with the knowledge that is produced by other disciplines, are in fact present in what are taken today to be merely examples of current disciplines. Indeed, the complexity of a topic is arguably simply one of the defining features of all disciplines, justifying the need for research around it and the need to structure knowledge around this particular issue. Notably, it is perhaps inevitable that due to the progress of research in the existing disciplines, it would be rare to establish any new research perspective today to which existing disciplines would not in some way be relevant. The extent to which this happens seems to be essentially a form of Inter-Disciplinary research, whereby existing disciplines are drawn on to the extent that they are relevant to the new research perspective.

The important conclusion this leads to is that research which focuses on real-world problems, as identified through collaboration with non-academic actors, since it assumes a research perspective of what is important to research and how, is an example of the usual disciplinary approach to research. In this way, the establishment of a new research perspective, for instance one which focuses on climate change or global poverty as a real-world problem, can be understood as a momentary event which must be defined in relation to the existing disciplines. It is a moment in which research is undertaken that assumes a different perspective to the assumptions made by the research perspectives of existing disciplines. After this new research perspective has been established and research has been carried out under this new perspective, it is no longer ‘new’ but rather simply another research perspective which competes with the existing disciplines and the research perspectives which they assume.

7.1.2 “Children and Divorce” as an example of a ‘Trans-Disciplinary’ Project

This is a very different way in which research into real-world problems is described in the interdisciplinary literature, which tends to presume that such research has to transcend disciplinary boundaries. This section will therefore analyse an example of a project that does use research to engage with real-world problems in order to test how these issues play

out. The Swiss project, “Children and Divorce”, which describes itself as trans-disciplinary, is chosen because it focuses on divorce as a complex, real-world problem that restructures families and can therefore have a negative effect on children, and draws on overlapping disciplinary knowledge from law and psychology. It therefore engages with the main reasons usually provided in the literature for why an approach is required that transcends or synthesises disciplinary boundaries.

Two of the questions which the study sought to answer are as follows: What is the situation in life of divorced parents and their children? How can children affected by divorce appropriately participate in the reorganisation process of the family? Such questions demonstrate that because the effects of divorce on children is seen as the main topic of interest, the focus of the research becomes different than if divorce was being researched by other disciplines, or if the focus of the research was to add or synthesise existing disciplines. Questions thus become formulated not around what would be appropriate from a legal or from a psychological perspective, but instead what would be appropriate with regard to the particular situation of children when their family is being reorganised after divorce. Questions also focus on a particular aspect of divorce as it is most relevant to the experience of children, and most relevant for the research perspective which this project takes. In comparison, law would focus on only the legal aspects of divorce, such as custody and division of legal assets. A psychological approach would focus on only the psychologically relevant issues of divorce, such as how the reorganisation affects mental health and wellbeing. These perspectives therefore do not consider the total factors that are involved with the reorganisation of a family or the situation in life for the parties involved.

By concentrating on divorce as an event which reorganises the family and can lead to negative effects for children, research will also be organised and produced in a way which differs from research that seeks to combine what is significant about divorce from the perspective of all existing disciplines. An argument may be made that existing disciplines already provide all the available perspectives that can be taken to the ‘situation in life of divorced parents and their children’, for instance the psychological situation, the legal situation, the economic situation, the medical situation, the geographical situation etc. As such, the argument may be that this project has to engage in the synthesis or addition of existing disciplinary perspectives on divorce. However, as above with the example of

medicine, while disciplines may overlap to a great extent with other disciplinary perspectives, this does not mean that they are necessarily engaging in a synthesis of existing disciplinary knowledge. Instead, it is possible to generate a new and different research perspective that draws on existing disciplinary knowledge in a new and important way.

For this particular example, an accumulation or synthesis of the knowledge that is provided from different disciplines with regard to divorce will remain as knowledge about divorce from the perspective of these disciplines, rather than knowledge about divorce from the perspective of how it affects children through the organisation processes of families. In other words, research on divorce which seeks to add or synthesise the existing disciplines would result in an accumulation of the most psychologically important factors about divorce, or the most legally important factors about divorce etc., even if from the perspective of how the reorganisation process of families affects children these factors are not the most significant. On the other hand, since this project takes divorce as a topic of interest because it is an event which reorganises the family and therefore affects children, different factors of divorce would receive the greatest attention by researchers. These factors would be those that change the most and are the most relevant to the event of divorce as a process which restructures families and has an effect on children, rather than an addition or synthesis of the factors of divorce which other disciplines view as most relevant to their own perspectives.

This difference in focus and how this amounts to something different to an accumulation or synthesis of relevant knowledge from other disciplines is also demonstrated by what the study considers appropriate solutions to the 'problem' to be. Rather than organising research into solutions around the current disciplinary perspectives, for instance asking what legal changes are required or what political changes are required, the study organises research into solutions for the problem of divorce and its effects on children. As such, the study therefore considers the appropriate action that may be required across all sectors that may be relevant to this problem; "within politics, the administrative bodies of the federation, cantons and municipalities, corporate economy and non-governmental welfare

organisations".[3] Similarly to above, while it may be argued that individual existing disciplines can provide knowledge on this separately, for instance the economic discipline providing knowledge on the changes to corporate economy that would be required, providing a new perspective does something different to accumulating or synthesising the knowledge from other disciplines. It provides a new focus whereby the question that is asked is not what the legal solution and what the economic solution may be individually but which of these solutions is the most relevant and most suitable from the perspective of the issues faced by the children of divorced parents.

By researching the particular issue of the effects of divorce on children as a real-world problem that needs to be addressed, the project has engaged in what are essentially disciplinary methods of research. Because the project sets its own perspectives of what is important to research about divorce, it produces research that differs from an approach that seeks to add together existing disciplinary perspectives on divorce. Such research would take account of all the legally relevant factors on divorce, as well as the psychological factors relevant etc., and provide an addition or synthesis of these perspectives. This project instead assumes a particular perspective which sets the assumptions that guide research in this area, the same way in which disciplinary research perspectives guide the research that is carried out within disciplinary areas. Such assumptions for this project include that research should involve a focus on practical solutions and a focus on the lived experience of children whose parents are going through or have been through the process of separation. As such it would consider as relevant only those aspects of existing disciplinary knowledge that affect the experience of children. This is essentially nothing other than bringing disciplines together through what has already been identified as the Inter-Disciplinary Approach.

While it has been demonstrated that this project engages with the topic of divorce in a particular way that differs from how existing disciplines research the topic and from an approach which seeks to synthesise the existing disciplinary perspectives to divorce together, one question which may arise is whether it is possible to truly establish a 'new'

[3] H. Simoni, P. Perrig-Chiello, A. Büchler, "Children and Divorce Investigating Current Legal Practices and their Impact on Family Transitions", in G. H. Hadorn, et al. (eds.) *Handbook of Transdisciplinary Research*, (Dordrecht: Springer, 2008), pp. 261-262.

research perspective if it focuses around the construct of an existing discipline. For instance, this project focuses on the topic of divorce which is a legal construct. The question which arises therefore is whether the project can be separated enough from the legal discipline in order for it to be establishing a separate research perspective. The general issue is whether a research perspective that takes an interest in topics which are already the construct or subject matter of an existing discipline can be said to establish a 'new' research perspective or instead is producing research that is more accurately seen as falling within existing discipline's boundaries.

The ways in which current disciplines are separated may again provide the beginnings of an answer to this. Thus, there are existing disciplines or fields of research which are 'about' legal or other disciplinary constructs and nevertheless are considered to be separate. The examples of Economics and Economic History as disciplines were discussed in Chapter 1, but they can be returned to here again as an example of the current issue. Economic History focuses on the understanding and analysis of past economic events and processes, thus building its research around concepts and constructs which owe their existence to the discipline of Economics. Economic History is however still considered to be its own separate field of research. Perhaps more similarly to the project on Children and Divorce, and for any project which bases its focus around a legal construct, the example of Criminology can be considered. Criminology focuses on the topic of crime, understood in the legal sense as referring to crimes of law. However, it can be seen that while Criminology bases its research around a particular legal construct, it is nevertheless acknowledged to be a separate discipline or field of research to Law.

To examine this further, it is proposed that the reason they are seen as separate is that while they cross-reference to constructs which are established or created by other disciplines, they nevertheless draw on different methodologies, tools, and assumptions which therefore lead to different questions that are asked e.g., about crime than would be done within the legal discipline. It also leads to different ranges of topics being considered by each field of research, even if they overlap on several topics of interest. For instance, the range of topics included as relevant to Criminology, e.g., psychology of criminal behaviour, effects of crime on society, life experience of prisoners and their families, are vastly different to the range of topics that are researched by Law, e.g., constitutional law, international law,

property law. It is in these ways that Economic History can be considered to be providing a different research perspective to Economics, as Criminology provides a different perspective to crime than Law does.

What disciplines such as Economic History and Criminology are pointing towards is therefore the same issue that was discussed in Chapter 5; that there are many different aspects to the same topic and that it is the perspective assumed which will determine which aspects are important or significant to research about the same topic or construct. This is true even if the object of research exists as a construct of an existing discipline.

That a different aspect of the topic is being researched may lead to the question of whether it can even be said that the 'same' topic is being considered by the different research perspectives. For instance, perhaps the Swiss project, with its emphasis on divorce as a family reorganisation process and its potential negative effects on children, is not really researching the 'legal' construct of divorce. This issue comes to the forefront when it is acknowledged that the same topic is relevant for different reasons according to the different research perspectives assumed. It is because divorce is currently an event governed by the law that it is therefore included as relevant for legal research. However, it is not because divorce is governed by the law that it is relevant to the Swiss project. Instead, it is because divorce has an effect on the reorganisations of families and therefore has negative effects on children that it is relevant to the perspective taken by this project. As such, should divorce in the future be regulated by non-legal institutions, the law may lose interest in the topic while the event of couples separating would remain relevant to this Swiss project. This split perhaps supports the claim that the two were never researching the 'same' topic at all. Ultimately, this leads back to the fact that they are both assuming different research perspectives and therefore are in the end researching something different. Law is researching all issues that are regulated and governed by legal processes, to which divorce at the moment is relevant. The Swiss project is researching issues related to the reorganisation of families and the potential negative effects this has on children, to which any separation of parents, including at the moment what is known as the legal event of divorce, is relevant.

It can therefore be seen that it is possible to create a new research perspective even if this perspective undertakes research into topics that are the constructs of existing disciplines. This is because, as highlighted in Chapter 5, different aspects of this construct are available to be researched depending on the research perspective that is presupposed. However, it is noted that one can also describe this as the new research perspective researching an ultimately different topic due to its difference in what it takes to be significant about the construct. The distinction between the two depends perhaps on whether one focuses on describing disciplinary perspectives in relation to the topic or describing topics in relation to disciplinary perspectives. In the former, what is emphasised is the topic itself and how the same topic can be researched in different ways according to the different aspects of the topic which the research perspective focuses on. For instance, taking the topic of schizophrenia, it can be seen that there are psychological aspects as well as medical aspects to this same topic. In the latter, what is emphasised is the research perspective itself, and therefore how each perspective is fundamentally researching something different. For instance, medicine researches the particular issue of medical diagnosis and treatment of health, to which the topic of schizophrenia is relevant. Psychology on the other hand researches a different particular issue of human thought and behaviour, to which the topic of schizophrenia is relevant.

7.1.3 Establishing the Third Perspective Approach

This chapter has thus far argued that research which focuses on researching ‘real-life’ problems and potentially overlaps with the topics of existing disciplines is carrying out a form of disciplinary research, albeit disciplinary research that assumes a new research perspective. This is because, like existing disciplines, it makes assumptions of what is important to research. When other disciplines are drawn on, this is only to the extent that they are relevant to the new research perspective established. Importantly, this is essentially the same as the Inter-Disciplinary Approach, and is not a form of transcending or synthesising disciplinary boundaries themselves. The possibility of focusing research on ‘real-world’ problems should therefore be seen as pointing to the possibility that new research perspectives can be established. The establishment of a new research perspective is less of an interdisciplinary approach and more of a momentary event in which a new

perspective to research is proposed that contrasts with the existing disciplinary perspectives.

Through an analysis of the “Children and Divorce” project, it was also emphasised that new research perspectives can be established even if they cross-reference to the constructs of other disciplines. This is because if the research perspective is new, it will provide a new and different way in which to research even the same topics which may already form part of the subject matter or be the constructs of existing disciplines. To identify whether a new research perspective has been established, differences in the way in which the same topic is researched or differences in the range of topics that are included as relevant to the research perspective should be considered.

The emphasis which the trans-disciplinary literature places on researching real-world problems does nevertheless indicate an important issue which was discussed in Chapter 5. This is the importance of maintaining the value neutrality of research by being aware of how current research may be omitting certain perspectives. The establishment of a new research perspective can be seen as an answer to this. The important benefits that occur from the establishment of a new research perspective is the assumption of a new issue that is important to be researched and which has been omitted by existing disciplines, therefore leading to the re-organisation and re-structuring of knowledge, so that new research questions are asked around a new issue of interest.

Emphasising that research into ‘real-world’ problems is in fact a form of disciplinary research and not a form of research that transcends disciplinary boundaries also removes the requirement to address the challenges identified in Chapter 2 regarding the trans-disciplinary approach. This is because, as discussed further below in section 7.2, these challenges relate to the proposal that disciplinary boundaries can actually be synthesised or transcended.

With regard to psycho-legal research specifically, what is highlighted by the possibility that law and psychology can both be relevant to a new research perspective is that law and psychology can be relevant to any third disciplinary perspective, whether it is an existing non-legal and non-psychological discipline or the beginnings of a new research

perspective. For instance, it is possible that both law and psychology may be relevant to the existing discipline of Criminology, thus giving rise to the possibility that both disciplines can be brought together in order to answer the questions of Criminology. It is also possible that both law and psychology are relevant to a new research perspective, such as the Swiss research project on divorce and its effects on children.

This approach to psycho-legal research will therefore be established by this thesis as the **Third Perspective Approach**. This approach emphasises that interdisciplinary research can assist in the pooling of resources and knowledge across multiple disciplines, so that information which falls under the expertise of law and psychology can be contributed as relevant to improve the legal and psychological assumptions which may be made by other disciplines. 'Why' psychology and law are being brought together here is that they each provide relevant information to a non-legal and non-psychological research perspective. This can be to an existing disciplinary perspective, or to a new research perspective that is developed by the study. 'How' psychology and law are brought together is that the same study will draw on both disciplines to provide relevant information from each. 'To What Ends' is that psychology and law will lead to improvement and development within the third research perspective to the extent that the information provided is relevant.

Notably, while research under the Third Perspective Approach does presuppose a perspective regarding what is important to research, and therefore dictates how psychology and law are relevant to this perspective, this in itself is not a violation of value neutrality. This is because the issue of value neutrality does not challenge but rather acknowledges that different research perspectives do exist, each of which will dictate how legal and psychological research is or is not relevant. Instead, what value neutrality requires is that one research perspective is not prioritised by the research community as a whole.

A related but separate issue is the importance of researchers remain open-minded and not geared towards substantive research findings within their chosen perspectives. The distinction between substantive research goals and substantive research outcomes was discussed in Chapter 5. There it was emphasised that it is presuppositions of the latter and not the former which is problematic. Relating this to the Third Perspective Approach, it can be highlighted that such third perspectives will presuppose substantive research goals

that reflect the presuppositions made by the perspective regarding what is important to research. This could include, for instance, a research perspective that presupposes real-world problems or even the implementation of particular policies as important to research. This in itself is not an issue as long as presuppositions are not made regarding the substantive research outcomes. For instance, a pre-defined preferred outcome that research into real-world problems should result in substantive findings that support an argument for legal reform. The Third Perspective, by acknowledging that there are non-legal and non-psychological perspectives and therefore substantive research goals to which law and psychology may be relevant, is therefore not an example of research bias since it does not presuppose particular research outomes. This can be compared with the Mainstream Proposal, which does pre-define particular research outcomes, in particular, a research finding that psychology will prove that legal reform is necessary.

In fact, similar to the Psychological Perspective Branch, emphasising the possibility of the Third Perspective Approach and therefore how psycho-legal research can contribute not only to legal and psychological issues but also other disciplinary issues is one way in which to address the value neutrality issues discussed in Chapter 5, where the importance of not focusing as a research community on particular research perspectives was stressed. Importantly, the Third Perspective Approach is also different to the Inter-Disciplinary Approach established in Chapter 5. Law and psychology are brought together under the Third Perspective Approach because they are each separately relevant to another research perspective and not because they are relevant to each other.

7.2 The Trans-disciplinary and Multi-disciplinary Proposals as an ‘Additive’ Approach

While research which focuses on real-world problems has been shown to be essentially a form of disciplinary research, an outstanding question from the interdisciplinary literature is whether research can synthesise or transcend disciplinary boundaries in other ways. As has been identified, the Inter-Disciplinary Approach deals specifically with the instance where disciplines can interact because there is a point of relevance between them. Notably, this will not always be the case and indeed it is probable that more areas exist between disciplines for which there is no point of relevance due to the fact that they are assuming

different research perspectives. One example discussed in Chapter 3 was where psychological information of estimator variables on eyewitness accuracy may not be relevant to legal requirements which focus on regulating variables which the police can control. The outstanding question regarding interdisciplinary research is therefore how disciplines can interact when there is no point of relevance, when their perspectives conflict such that Inter-Disciplinary research is not possible.

The Multi-Disciplinary and Trans-Disciplinary Proposals answer this issue in different ways. In the literature on the multi-disciplinary approach, emphasis is placed on bringing these different perspectives together in an 'additive' way. On the other hand, the trans-disciplinary approach claims to be doing something different. This approach is claimed to go beyond 'simply' adding perspectives[4] and to instead synthesise or transcend disciplinary perspectives themselves, creating a unified body of knowledge.

These two proposals for interdisciplinary research both reflect the more general points discussed in Chapter 5 that arise when considering research that takes place not within perspectives that share a point of relevance, but between conflicting perspectives. The conclusions made in Chapter 5, as well as specific examples of and challenges that have been made towards trans-disciplinary research, will be used to argue that at most conflicting disciplines can only be 'added' together as the multi-disciplinary literature proposes, and that this is the type of 'unified' or synthesised body of knowledge that can be created. The trans-disciplinary literature claims that it is through synthesising or transcending disciplinary boundaries that one can be critical of them. However, it will be shown that the goal of taking a critical stance to existing disciplines is achieved through the method of 'adding' disciplines together.

7.2.1 The Impossibility of the Trans-Disciplinary Method and the Benefits of the Additive Method

[4] Indeed, it has been noted by authors that the multi-disciplinary approach is often considered to be inferior because it does not integrate disciplines as inter-disciplinary research does, nor does it synthesise disciplines as trans-disciplinary research is supposed to do: Richards, "The Meaning and Relevance of 'Synthesis'", p. 114; Klein, *Typologies of Interdisciplinarity*, stating that in a literature review most definitions of interdisciplinary research treat integration as the litmus test, p. 23.

While it was demonstrated in Chapter 5 that one of the points which Weber seemed most concerned with was the impossibility of solving conflicts between perspectives such that one ‘wins’ over the other, it was also shown that within his own writings and further elaborated on by more recent authors was perhaps the more optimistic position that it nevertheless remains important to consider how perspectives relate to each other, with many benefits that can arise from this. These benefits were identified as leading to the enlargement of understanding, and helping to clarify, challenge, and keep flexible and open-minded towards the assumptions and judgements that are made based on the knowledge that is produced within assumed perspectives. Since these conclusions concern research that takes place between conflicting perspectives, they are highly relevant to the discussion regarding the proposed multi-disciplinary and trans-disciplinary approaches. Surprisingly, however, this literature has not been drawn on within the interdisciplinary debate. This section will contribute to the trans-disciplinary debate by demonstrating that it has closely followed the same arguments and conclusions that have been reached regarding the methodology of social sciences.

Thus, as identified in Chapter 2, one of the main challenges made towards the proposal that disciplinary perspectives can be synthesised or unified is that there has been no adequate methodology specified for how to unify the conflict that exists between what disciplines presume to be important and significant to research. For instance, there has been no methodology specified for how to decide if the legal perspective to jury decision making is more or less important than the psychological perspective, and therefore how to unify these in a way that differs from simply adding together the different types of knowledge that each discipline produces. The second main challenge that has been made is a re-emphasis on the important role of disciplines in providing structure and order to knowledge, and therefore a doubt regarding the benefits that can occur in research that seeks to synthesise these disciplinary boundaries.

These challenges to the notion of synthesising disciplinary perspectives or solving the fragmentation of disciplinary knowledge mirror the more general issues that have been discussed in Chapter 5. The fact that many different perspectives can be taken towards a topic leads to the necessity of choosing one in order to provide structure and dictate the types of questions that will be considered relevant to ask and therefore the questions and

perspectives which will be omitted. Following from this, the knowledge that is produced within these perspectives will only have value for those who agree with the presuppositions of the perspective chosen.

Instead of the goal of creating some form of 'unified' knowledge, it is therefore argued by these challengers that the benefits of bringing disciplines together, if not on a point of relevance, include fostering greater understanding, greater flexibility and open-mindedness, and a more critical attitude to the current viewpoints and perspectives that are assumed. This echoes the conclusions that were reached in Chapter 5 regarding the requirement to keep an open-mind due to the existence of multiple and conflicting perspectives, and the types of benefits that can nevertheless arise from research which focuses on the question of how conflicting perspective relate to each other. Thus, for Moran:

> Interdisciplinarity could therefore be seen as a way of living with the disciplines more critically and self-consciously, recognizing that their most basic assumptions can always be challenged or reinvigorated by new ways of thinking elsewhere. Interdisciplinary study represents, above all, a denaturalization of knowledge: it means that people working within established modes of thought have to be permanently aware of the intellectual and institutional constraints within which they are working, and open to different ways of structuring and representing their understanding of the world.[5]

Richards too emphasises similar points:

> What results from interdisciplinary cooperation is an accumulation of different types of knowledge about a particular issue. It is clear, then, that the two can yield a "synthesis" only in a loose, "enriched-view-of the-world" sense. There would seem to be unbreachable epistemological barriers preventing genuine integration in such cases. This does not, however, necessarily de-legitimize this type of

[5] Moran, *Interdisciplinarity*, pp. 180-181.

> interdisciplinary cooperation. An enriched view of the world, or of a particular issue, is a noble academic objective.[6]

Indeed, the challenge regarding how conflicting perspectives can be synthesised or unified is reflected by those who have carried out interdisciplinary research in practice, providing further support that it is not possible to unify disciplinary perspectives in any meaningful way beyond an addition of the conflicting perspectives. These researchers instead emphasise other benefits in their descriptions and evaluations of what interdisciplinary research is. For instance, John Aram carried out an interview on researchers who have undertaken interdisciplinary research.[7] Broadly, the researchers split into two groups regarding their views on the value of interdisciplinary research. For one, the benefits that arise include the ability to see different perspectives and gain a deeper understanding of reality. For the second group, the benefits include the ability to re-organise knowledge and allow social agreement. Discussing trans-disciplinary research on the specific topic of urban health, researchers identify the benefits of bringing different disciplines together to be that assumptions, paradoxes, and conflicts between them can be exposed. For the researchers, this can lead to new understandings of the phenomenon and new research directions.[8]

It can be seen that unifying knowledge was not considered by any of the researchers to be the value of interdisciplinary research. Instead, the types of benefits identified by the researchers align with those that Moran and Richards highlight, as well as those emphasised in Chapter 5 regarding research that takes place between perspectives rather than within. At other times, the benefits align more with the establishment of a new perspective to research discussed above, whereby importance is placed on research which focuses on solving new real-world problems, re-organising knowledge, thus giving rise to new understandings and research directions.

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[6] Richards, "The Meaning and Relevance of 'Synthesis'", pp. 122-123.
[7] Aram, "Concepts of Interdisciplinarity".
[8] N. Schaefer-McDaniel, and A. N. Scott, "Benefits and Challenges of Transdisciplinary Research for Urban Health Researchers", in M. Kirst et al. (eds.), *Converging Disciplines: A Transdisciplinary Research Approach to Urban Health Problems*, (New York, NY: Springer New York, 2011), pp. 14-15.

Examples of projects which seek to combine multiple disciplinary perspectives provide support that these are indeed the subtler benefits that are possible to achieve. For instance, the authors of the already mentioned Swiss project on children and divorce noted the difficulties in 'integrating' the results, concluding that the "specific perspectives and analytical levels of the disciplines involved were not intended to be dissolved, but to be explicitly made use of".[9] The authors emphasise how taking different perspectives together can help "the researcher to stay detached from preconceived opinions and convictions and to start searching for contexts on the assumption that things may well be completely different from what they were supposed to be".[10]

Another example of a study that describes itself as trans-disciplinary and involves the disciplines of law and psychology is a project which focuses on the topic of decision-making in extreme prematurity.[11] Similarly, this project ultimately does not go beyond 'adding' different disciplinary perspectives together, resulting in the same benefits of providing a more complete and enlarged understanding of this particular topic. The study involved experts from numerous fields, including epidemiology, psychology, ethics, and law, in order to answer the following questions: What are the parameters to consider before delivering survival care to a baby born at the threshold of viability? Would it be acceptable to give different information to parents according to the sex of the baby considering that outcome differences exist between sexes?

The experts addressed these questions separately, with each providing knowledge and information from within their disciplinary boundaries. For instance, the third chapter which was written by the psychologist expert focused on the psychological aspects of prematurity, thus including the cognitive, behavioural and emotional consequences of premature births for infants and parents. Similarly, the fifth chapter written by the legal expert focused on three legal points of view that can be taken to the situation. These

[9] Simoni, Perrig-Chiello, and Büchler, "Children and Divorce", p. 266.
[10]Supra, Simoni, Perrig-Chiello, and Büchler, "Children and Divorce", p. 262.
[11] See mainly E. Boucher, A. Gagné, and M. Simard, *Influence of Prematurity and Sex on the Health Perspectives of a Child: A Transdisciplinary Approach*, (2010); For a summary, see the article M. Simard et al., "A Transdisciplinary Approach to the Decision-Making Process in Extreme Prematurity", *BMC Research Notes* 7 (14 July 2014), pp. 450–450.

included the premature infant's legal status, the parents and their legal rights, and the legal obligations of healthcare professionals.

The last chapter undertook the task of bringing these perspectives together in a 'transdisciplinary analysis'. Within this chapter, the insights from the separate disciplines were brought together in an 'additive' way, with the main points from each chapter summarised together. Thus, the chapter was organised into separate sections, the first summarising the main points from the first chapter written by an epidemiologist regarding the medical information that is passed from the medical team to the parents. The second section summarised the psychological consequences that can occur from premature births which were elaborated on in the third chapter. The third section focused on the legal issues involved in the decision-making process, as detailed in the chapter written by the legal expert. The fourth section highlighted future research which will help with the planning of personalised intervention and therefore the minimisation of adverse consequences, summarising the points raised in the chapter concerning the biomedical aspects. The overall conclusion reached was "that the physician must use knowledge from various disciplines to adequately inform parents of the current status of the infant born at the limit of viability".[12]

Although this project describes itself as trans-disciplinary, it can be seen that ultimately the disciplinary perspectives were combined in an additive manner. There was nothing beyond this in terms of unifying or synthesising the perspectives which was demonstrated by the project. As the authors state, what is achieved is a more holistic understanding of the issue and ultimately an awareness of the different factors that are emphasised by different disciplinary perspectives regarding judgements concerning extremely premature infants.

The project on prematurity was chosen because it can usefully be contrasted with the Swiss project on divorce discussed above. Both of these projects describe themselves as trans-disciplinary. However, important differences can be noted between them. As was identified in the Swiss project, a new perspective was established and research was carried out under this perspective. This perspective presupposed that divorce should be researched as an

[12] Boucher, Gagné, and Simard, *Influence of Prematurity and Sex,* p. 144.

event that reorganises the structure of families and therefore can have negative effects on children. This was seen to impact on what were taken to be the important questions to research for the project, and the appropriate answers to these questions. Existing disciplinary knowledge was relied on to the extent that it was relevant to this research, in other words through the Inter-Disciplinary Approach. On the other hand, this current project on prematurity did not itself establish a new research perspective. Instead, it took the topic of decision-making in extreme prematurity as it is understood and researched by existing disciplinary perspectives, concluding by adding together the knowledge from the different disciplines. Unlike the Swiss project which started from its own perspective regarding what is important or significant to research, the starting and ending point for the prematurity project remained within an analysis of existing disciplinary perspectives and how they have carried out research into this topic.

That the prematurity project ultimately remained within an 'additive' approach highlights the impossibility of moving beyond 'adding' different disciplinary perspectives together when it comes to combining conflicting perspectives as suggested by the Trans-Disciplinary Proposal. The challenge is that, as identified in Chapter 5, each discipline makes different assumptions regarding what is important to research and therefore produces different types of knowledge which are unable to be unified together. As such, the same 'solution' has been proposed by those considering the methodology of social sciences in general, by those writing on trans-disciplinary research, and by researchers carrying out research which seeks to combine different disciplinary perspectives around one topic. This solution is to emphasise the benefits that can arise from shedding light on the different types of knowledge which different disciplines can provide with regard to the same topic. Importantly, these benefits can arise from the method of 'adding' different disciplinary perspectives together, and include exposing the assumptions which disciplines make, enlarging our understandings of particular topics, and creating a more critical and reflexive attitude towards research. The challenge of going beyond an addition of perspectives was also emphasised through an analysis of the project on decision making in extreme prematurity. Although the project described itself as trans-disciplinary, it was seen that what was ultimately achieved was an additive approach which gave rise therefore not to a 'synthesis' of knowledge that transcends disciplinary boundaries but rather an

expanded understanding of the topic as it has been researched through the perspectives of existing disciplines.

7.2.2 Establishing the Additive Approach

This section has contributed to the debate concerning the Trans-Disciplinary Proposal by bringing it in relation to the literature on the methodology of social sciences and to an analysis of examples of interdisciplinary projects. This has confirmed the difficulties that exist regarding the 'How' of the Trans-Disciplinary Proposal, to bring disciplines together so that they can be transcended or synthesised. Instead, it has been emphasised that many of the benefits that the literature associates with the Trans-Disciplinary Proposal, such as clarifying and challenging the assumptions made by disciplines, actually occur by bringing disciplines together in the 'additive' method which the Multi-Disciplinary Proposal indicates.

The suggestions from the Trans-Disciplinary Proposals and Multi-Disciplinary Proposals that conflicting disciplines can be brought together without the need for a point of relevance between them can therefore be clarified as the possibility to undertake interdisciplinary research under what this thesis will term the **Additive Approach**. The 'Why' of bringing disciplines together here is that different disciplines make different and conflicting presuppositions of what is important to research and how. It is therefore of interest to examine these differences. The 'How' is to reveal, compare, and contrast the presuppositions made by disciplines by 'adding' the research that different disciplinary perspectives contribute regarding particular topics or issues. The 'To What Ends' is to enlarge understandings and to clarify and challenge assumptions made by existing disciplines. As well as another possible way in which disciplines can interact, the Additive Approach also engages with the important work that has been identified in Chapter 5 regarding the methodology of social sciences. There, it was emphasised that because there are conflicting disciplinary perspectives, it remains important to continue to test the presuppositions which disciplines do make and to use this to expand our understandings.

The establishment of the Additive Approach thus contributes to the interdisciplinary literature by emphasising that the goals of the Trans-Disciplinary Proposal, to challenge

assumptions made by disciplines, can be achieved but importantly that this is not done through its proposed method, which faces challenges, but instead through the method of the Multi-Disciplinary Proposal. Chapter 2 identified that the Multi-Disciplinary Proposal failed to state what the benefits of bringing together disciplines in an additive fashion are. This may be due to the fact that the interdisciplinary literature in general seemed to presume that these benefits were associated with the Trans-Disciplinary Proposal only. The Additive Approach established here clarifies what exactly the benefits are to an interdisciplinary method which adds together different disciplinary perspectives.

Importantly, the Additive Approach does represent a different method of interdisciplinary interaction to the Inter-Disciplinary and Third Perspective Approaches which have also been developed by this thesis. Under the Additive Approach, it is acknowledged that disciplines can be brought together using a method that does not depend on either being relevant to another. Instead, focus is placed on understanding the relationship and potential conflict between different disciplinary perspectives themselves. The Additive Approach undertakes research about disciplinary perspectives, while the Inter-Disciplinary and Third Perspective Approaches undertake research within a particular presupposed research perspective to which another discipline or other disciplines are relevant.

An example that can be used to emphasise the difference between the approaches is research into the topic of jury decision making. Here, a researcher could combine these disciplines under the Additive Approach, by first summarising the legal perspective to jury decision making; the legal processes, the legal rights and duties that exist in this area, and then second summarising the psychological perspective to jury decision making; the human decision-making processes involved, the psychological variables that impact on jury decision making. This would lead to research that can expand our knowledge on the topic of jury decision making and clarify differences between the legal and psychological perspective. Under the Additive Approach, there is no presupposition made regarding how a topic should be researched. The only presupposition made is that it is important to research how other disciplines have researched a particular topic. In other words, that it is important to understand the research perspectives of other disciplines.

In comparison, an Inter-Disciplinary Approach to jury decision making would focus on a particular aspect of knowledge from the psychological perspective that is relevant to the legal perspective or vice versa, and then use this relevant knowledge to answer questions that exist within the legal or psychological discipline. There is no attempt to provide summaries of the total legal or psychological perspective that is taken to the topic. Contrasting to the Additive Approach, under the Inter-Disciplinary Approach, there is a presupposition made regarding how the topic should be researched. For this example, the presupposition would either be that jury decision making should be researched from the psychological perspective, to which the legal context is relevant thus giving rise to the potential for interdisciplinary study, or that jury decision making should be researched from the legal perspective, to which psychology is relevant thus giving rise to the potential for interdisciplinary study.

The Third Perspective Approach to jury decision making also differs to the Additive Approach. This approach would focus on particular aspects of knowledge from both the legal and psychological perspective that are relevant to a non-legal and non-psychological research perspective. Unlike the Additive Approach, the Third Perspective Approach does make a presupposition regarding how jury decision making should be researched. This presupposition would be that it should be researched from the non-legal and non-psychological research perspective presupposed, e.g., from the Criminology research perspective. As such, there is no attempt to understand the legal or psychological perspective to jury decision making, and only interest in using law and psychology as they are relevant to distinct issues seen as significant from the Criminology perspective.

7.3 Implications for Psycho-Legal Research

The above analysis of the literature on interdisciplinary research therefore highlights that additional approaches to bringing law and psychology exist, beyond integrating them on a point of relevance to each other. As the discussion above shows, the potential benefits of interdisciplinary research are not only that disciplines can learn from each other but also that disciplines can be brought together as relevant to a new or separate research perspective or to enlarge understandings and reveal assumptions that are made by existing

disciplines. By emphasising these as separate approaches, the scope of psycho-legal research can be expanded and, arguably, improved.

One of the main problems encountered in the previous chapters was that psycho-legal researchers can sometimes define issues in a particular way such that it is no longer a legal one. The reason this is taken as a problem is because the psychological information provided would not therefore be relevant to the law. This occurred to a certain extent in all three examples of psycho-legal research analysed. Thus, for eyewitnesses, it was demonstrated that psychological information on any factor which impacts on the accuracy of eyewitness identification, including those which actors in the criminal system cannot 'control', may not be relevant to the law. This is because the issue from the legal perspective is not to prevent all wrongful convictions from occurring but to balance the rights of the defendant to a fair trial with the roles, responsibilities and functions of the police. Following the discussion above, this particular issue is only a problem for the Inter-Disciplinary Approach. Here, the interaction between disciplines depends on there being a point of relevance that exists between them. It is on this point of relevance that different disciplines can integrate and take account of knowledge from other disciplines.

However, under the Third Perspective Approach, it is possible for the law and psychology to be brought together as they are relevant to a new research perspective or to a third existing disciplinary perspective. Under the Additive Approach, it is possible to bring the two disciplines together in a way that analyses how they carry out different types of research into particular topics. Neither of these approaches depend on psychology being relevant to law, or law being relevant to psychology, for the two disciplines to nevertheless be able to be combined in interdisciplinary research.

Taking first the Third Perspective Approach, this provides psycho-legal research with greater flexibility and latitude in terms of the particular issues to be researched and the particular ways in which arguments for legal reform can be made. Here, that psychological information is not relevant to the law is not a particular problem. This is because psychology and law can be brought together as each relevant to a new research perspective and therefore to new issues, or as relevant to another third discipline. The benefit of taking this approach is that topics can be researched in a different way to how the issue is seen

from a legal or psychological perspective. Notably, current psycho-legal literature and psycho-legal studies already demonstrate interest in this approach when they emphasise how psychology can help to solve problems of injustice. The identification of the Third Perspective Approach encourages such psycho-legal research to engage with the thesis' established methods that are more appropriate to this particular way of bringing law and psychology together.

In order to highlight the benefits of bringing law and psychology together under the Third Perspective Approach, and how this differs from Inter-Disciplinary research, the example of juror decision making will be drawn on. In order to fit under the Inter-Disciplinary approach, psychological knowledge must be in some way relevant to the law or the law must be relevant to psychology. Regarding the first instance, this could be in order to test for the legal requirement that jurors are making decisions according to the law. It could also be in order to test for the legal issue of what the legal requirements should be. This would involve situating psychological information on jury decision making within legally relevant debates, including what the role of the jury in law is or should be and how changes in the legal requirements may cause a negative effect on other legally relevant issues. For instance, restricting pre-trial publicity may impact on legal rights such as freedom of speech. Regarding the second instance, this would be to consider juror decision making as an aspect of human thought and behaviour. Research on juror decision making would be restricted to the relevance this has to psychological theories and observations regarding human decision making.

Instead, under the Third Perspective Approach, there is greater freedom to test for issues that exist outside of the legal or psychological perspective. The chapter on jury decision making highlighted that many of the psycho-legal studies seem to be testing the question of whether jurors are influenced at all by any extra-legal factors. These studies often used results to suggest legal change, for instance recommending more racially diverse juries. As above, however, in order to be relevant to the legal issue of what the law should be, such studies would need to engage with legally relevant debates, and importantly the role that the jury has in law to reflect the general community's viewpoints. This aspect is notably absent from many psycho-legal studies which seem to make an assumption that any extra-legal influence on jurors can establish an argument for legal reform.

What the Third Perspective Approach emphasises is that it is possible for researchers to establish a new research perspective, one which focuses purely on jury decision making as a real-world problem that can lead to instances of injustice. The particular benefits are that this research would lead to questions and additional avenues of research beyond that which focuses on jury decision making as a legal or psychological issue. For instance, with regard to potential 'solutions', research under this new perspective would focus not on legal solutions only, as seems to be the case currently in psycho-legal research, but on what the most appropriate solution to this particular issue is, whether inside or outside of the legal system. The research would also consider a wider range of factors that are relevant to the issue of wrongful conviction, such as pressure on police, thus going beyond the legal factors such as rules on the admissibility of eyewitness evidence. As discussed in Chapter 5, this role for psycho-legal research, since it contributes to research perspectives outside of law and psychology, also helps to maintain the value neutrality of research by engaging with research that contributes to other research perspectives. Another benefit from researching jury decision making not as a legal issue but from the perspective of wrongful convictions is that how jury decision-making fits into the wider legal system is no longer strictly relevant and therefore is not an issue that necessarily needs to be engaged with.

This does, however, lead to what may be considered to be a potential disadvantage of the Third Perspective Approach. This is that since its research is not focusing on jury decision making as a legal issue, its findings are not going to be of central relevance to the law and therefore are open to the 'challenge' that the law can justify not taking account of any recommendations by the new perspective. This is of course a similar situation that exists between current disciplines. For instance, what the psychological discipline may consider to be best for children involved in divorce may not be considered relevant by the legal discipline. This is due to the differences in the presuppositions which are made by the disciplines. Overall, accepting that the Third Perspective Approach is carrying research under a presupposed research perspective means acknowledging it to be subject to the same concerns discussed in Chapter 5 regarding the production and value neutrality of research that takes place within presupposed perspectives. In other words, an acknowledgement for instance that recommendations from research which focuses on wrongful convictions as a problem to be solved only serves as recommendations for this

particular problem regardless of how it fits with the issues that are seen as relevant from other perspectives. Although the law may therefore provide justifications against the recommendations, the new perspective is nevertheless emphasising what it would require from law from its own perspective. This is similar to how existing disciplines can highlight what, from their perspectives, are particular deficiencies in the legal system.

These disadvantages of the Third Perspective Approach are therefore necessary ones given the benefits that arise. These benefits are specifically that psycho-legal research may not be relevant to legal or psychological issues, but that they are relevant to researching such issues from a different non-legal and non-psychological perspective. Establishing the Third Perspective Approach as a possible alternative to psycho-legal research thus reduces potential pressure to restrict psycho-legal research to instances where psychology is relevant to law or law is relevant to psychology, and provides greater flexibility and latitude to the researcher in terms of acknowledging that different ways in which to understand and research legal or psychological topics exist and can be created.

The second alternative approach is that law and psychology can be combined in the Additive Approach. Here, the separate and conflicting perspectives of law and psychology are considered together in order to enlarge understandings and reveal and expose the assumptions that are made by each discipline. Taking wrongful convictions as an example, research could focus on highlighting the differences that exist between the legal and psychological perspective to this topic. For instance, emphasising that certain psychological accuracies such as accurate eyewitness identifications, are sacrificed in the legal system in order to pursue crime control models of justice. This can be seen to reveal the assumptions that the law makes, leading to greater understandings of the legal system and how it impacts on real-life. By exposing what is sacrificed through comparing the law's values with the values of other perspectives and disciplines, the law's assumptions can be challenged.

Such challenge, since it engages with the relationship between conflicting presuppositions and value frameworks, is unlikely to lead to an answer such that one perspective 'wins' over the other. However, the importance of such research lies in its ability to enlarge understandings and clarify the choices that are being made between different perspectives.

By focusing on researching the relationship between disciplinary perspectives rather than researching within disciplinary perspectives, this approach allows researchers to maintain greater flexibility and play a role in continuing to 'test' the presuppositions that are made by disciplines.

7.4 Conclusion

Through an analysis of the literature and examples of more general interdisciplinary research, this chapter identifies two important additional approaches that can be taken to psycho-legal research. These approaches add to the usual Inter-Disciplinary approach that is advocated for in the general psycho-legal literature and emphasise that psychology and law can be combined in order to pursue additional benefits. They also contribute to the interdisciplinary literature by clarifying what the different approaches to interdisciplinary research are.

The first approach established by this chapter is the Third Perspective Approach. Through this approach, 'Why' psychology and law are brought together is that they may each provide relevant information to a third non-legal and non-psychological research perspective. 'How' is that the disciplines provide this relevant information. 'To What Ends' is that the information leads to the development and improvement of the third research perspective to the extent that the information is relevant. By emphasising that law and psychology can be relevant to non-psychological and non-legal perspectives, the establishment of this approach contributes to maintaining the value neutrality of psycho-legal research by ensuring that it does not omit psycho-legal research's contributions to other available research perspectives. This approach also suits better the goals of psycho-legal scholars who focus on using psychology and law to solve 'real-world' problems such as wrongful convictions. It allows researchers to re-frame the issue differently to how it may be seen from a legal or psychological perspective, thus contributing to a different re-structuring and organisation of research and knowledge. The establishment of this Third Perspective Approach allows psycho-legal research to more openly recognise that psychology and law can be brought together under a separate third perspective, thus doing something that is fundamentally different to the Inter-Disciplinary Approach. The chapter has contributed to the interdisciplinary debate by emphasising that such research into real-

world issues is not an example of synthesising or transcending disciplines as proposed by the trans-disciplinary literature but is instead an example of disciplinary research carried out under a new research perspective.

The second potential approach established by this chapter is the Additive Approach. Here, the reason for bringing the two disciplines together lies in the fact that they presuppose conflicting and different research perspectives and therefore it is of interest to examine these. ‘How’ this can be achieved is that the legal and psychological perspectives to a particular topic or issue are summarised. The benefits of this interaction between law and psychology are that the relationship and conflicts between these perspectives can be analysed in order to enlarge understandings of particular topics and expose and reveal assumptions which are made by the two disciplines. These benefits importantly fulfil the second requirement of value neutrality that was identified in Chapter 5. Establishing the Additive Approach therefore highlights how psycho-legal research has a significant contribution to make to the value neutrality of research which has thus far not been identified in the psycho-legal literature. The Additive Approach also develops the current interdisciplinary literature by highlighting that many of the goals usually associated with the Trans-Disciplinary Proposal can actually be achieved through the less challenged ‘additive’ method of disciplinary interaction.

Conclusion

As has been demonstrated throughout this thesis, psycho-legal research is an active and promising area of study. However, the need to engage in an investigation and analysis of the methodology of psycho-legal research has been pinpointed. This is due to the challenges that have been made towards the potentials of psycho-legal research and the conflicting positions that have historically existed and are reflected in debates today concerning the methodology of psycho-legal and interdisciplinary research. The thesis has undertaken an in-depth analysis of the methodology of legal interdisciplinary research, providing an understanding of 'Why', 'How', and 'To What Ends' law and psychology as disciplines can be brought together. This has enabled the outstanding debates to be addressed and has led to the establishment of a new methodological framework for psycho-legal research. This conclusion will summarise the findings and also emphasise the significance and implications of this thesis.

A New Framework for Psycho-Legal Research: Establishing the Three Approaches to Psycho-Legal Research

The central aim of this thesis was to discover the potential ways in which law and psychology can interact. Through an analysis of psycho-legal literature (Chapter 1), interdisciplinary literature (Chapter 2), literature on the methodology of social sciences (Chapter 5), and case studies of psycho-legal and interdisciplinary research (Chapters 3, 4, 6, and 7), it has been revealed that the existing approaches to interdisciplinary and psycho-legal research have shortcomings and need to be reformulated. The thesis has therefore created a new framework for the methodology of psycho-legal research which consists of three new approaches, summarised in this section. These three approaches demonstrate that there are different reasons for why law and psychology should interact in an interdisciplinary manner, and that each of these gives rise to different methods and benefits of disciplinary interaction. The establishment of the three approaches to psycho-legal research form the new framework for psycho-legal research and make up the main findings of this thesis.

The Inter-Disciplinary Approach

This approach was established in Chapter 5 and refers to the connections that exist between disciplines such that in certain areas one discipline assumes or refers to information or knowledge from another. Under the Inter-Disciplinary Approach, 'Why' psychology and law can be brought together is because one discipline may make assumptions that fall under the expertise of a second discipline. 'How' they are combined is that relevant and more accurate information from the second discipline is provided to the first. The 'To What Ends' or benefits of the interdisciplinary interaction are that the questions of the first discipline can be answered using the expert information from the second, leading to development and improvement within the first discipline to the extent that the information provided is relevant.

Importantly, there are two different branches of the Inter-Disciplinary Approach for psycho-legal research. First, there is the possibility that psychology can be relevant to empirical as well as normative and conceptual legal issues. This is termed as the Legal Perspective Branch of the Inter-Disciplinary Approach, and includes the example of when law makes psychological assumptions which psychology can then provide more accurate information on. For instance, discussed in Chapter 2 was the assumption made by the law regarding the accuracy and reliability of eyewitness testimony when such evidence is used in trial. This is a psychological assumption, for which psychology can provide more accurate and relevant information.

Under the second branch, there is the possibility that law can be relevant to psychology and thus contribute to improvement of psychological theory. This is termed as the Psychological Perspective Branch. Here, law can be relevant to psychology as a variable of human thought and behaviour or as a variable which influences human thought and behaviour. An example discussed in Chapter 6 is when the legal context of juror decision making can provide relevant information to the more general psychological questions regarding how human decision making functions.

The potential for one discipline to contribute to answering the questions of another has already been recognised by various proposals in the literature. However, the Inter-

Disciplinary Approach established by this thesis is important because it is a more accurate identification of how psycho-legal research can do this and it identifies several shortcomings with the existing proposals for psycho-legal research. These will be further discussed below.

What the Inter-Disciplinary Approach draws attention to is that there are specific inter-dependent areas that exist in which one discipline assumes or makes reference to knowledge that is the central focus of another discipline, and for which that other discipline therefore briefly becomes better able to provide relevant information. It highlights the benefits of interdisciplinary research as a tool to assist in the pooling of knowledge and resources across these inter-dependent areas. With regard to law and psychology, it is likely that there will be many opportunities for these disciplines to interact through the Inter-Disciplinary Approach. This is because since the agents and subjects of law are human, psychological information on human thought and behaviour is likely to be relevant to the law, and information from the legal context is likely to be relevant to psychology's subject of human thought and behaviour.

The Additive Approach

This approach was established in Chapter 7 and offers a novel method that differs to the current proposals in the psycho-legal literature. Under the Additive Approach, psychology and law can be 'added' together such that their different research perspectives to the same topic or concept can be compared. In terms of the 'Why' of this approach, psychology and law are combined because they offer different research perspectives and due to this will offer different types of knowledge regarding the same topic or concept. The 'How' or method of combination is to summarise the knowledge and information from law and psychology on the same topic or concept and present this information together. The benefits of this approach are that knowledge on a particular topic or concept can be enlarged and the presuppositions made by the research perspectives of law and psychology can be compared, and in this way clarified and tested. This contributes to the ability of the research community to remain open-minded and critical to the knowledge that is produced within disciplines.

The Additive Approach highlights a previously neglected role of psycho-legal research. While it draws a lot from the Multi-Disciplinary Proposal in the interdisciplinary literature, it demonstrates that in contrast to this existing proposal which does not specify any particular purpose to such research, there are in fact many benefits that arise from combining disciplines in an additive manner. This thesis is the first to relate Weber's discussion of the methodology of social sciences to the methodology of interdisciplinary research, and it is through this discussion that these benefits are identified.

The advantages of adding disciplinary perspectives can mainly be derived from Weber's observation that the same topic or concept can be researched in many different ways depending on the disciplinary perspective presupposed. As such, in order to obtain a fuller, comprehensive and less biased understanding of one topic, it becomes necessary to be aware of how this topic has been researched by different disciplines. In other words, to engage in the Additive Approach. The Additive Approach thus addresses one of the requirements of value neutrality identified in Chapter 5, which is to investigate research presuppositions, thus bringing to light the value judgments that are made by disciplines concerning what is important to research and how.

Several examples of the Additive Approach have been provided particularly in Chapter 7. For example, the topic of divorce can be researched from a legal perspective, focusing on the legal requirements and proceedings for divorce. However, divorce can also be researched from a psychological perspective, investigating the effects of divorce on human thought and behaviour. The Additive Approach points to the possibility of bringing these two disciplines together by summarising the differences between these two types of knowledge that are being produced. This will emphasise how each discipline presupposes different perspectives regarding what is significant about divorce and enables a fuller understanding of divorce to be achieved that takes account of both these perspectives.

While the Inter-Disciplinary Approach above emphasises inter-dependent areas that exist between disciplines, the Additive Approach instead emphasises the difference and conflict that exists between disciplinary perspectives and therefore the utility of interdisciplinary research in examining these differences. The pooling of resources and knowledge from different disciplines here contributes to a deeper understanding of the disciplinary research

that is being carried out and the different types of knowledge that each discipline contributes, resulting in work that helps researchers to offer expanded and less biased understandings of particular topics and concepts and to engage in critical evaluation of the presuppositions which are made by disciplines.

This thesis' establishment of the Additive Approach highlights that this is an additional way in which law and psychology can interact that is omitted from the mainstream descriptions of psycho-legal research, which focus solely on the type of Inter-Disciplinary Approach discussed above. The new framework therefore demonstrates importantly that other benefits, such as enlarging the understanding of psychological and legal concepts, and clarifying the presuppositions made by psychology and law, are available for psycho-legal research.

The Third Perspective Approach

This thesis has argued that, in contrast to the current Trans-Disciplinary Proposal's claim in the interdisciplinary literature, it is not possible to integrate disciplines beyond the Additive or the Inter-Disciplinary Approach and that in fact this is not required in order to achieve the goals which are associated with this proposal.

The difficulty in synthesising disciplines beyond adding them together, as suggested by the Trans-Disciplinary Proposal, is that this would require addressing the conflict that exists between different disciplinary perspectives. This is the same issue which is considered in Chapter 5 regarding the methodology of social sciences, where it has been accepted that such conflict between research perspectives cannot be resolved without the type of additive approach discussed above. While the literature suggests that trans-disciplinary research can help to test and critically examine the presuppositions which are made by disciplines, this goal is in fact achieved through the method of the Additive Approach.

The second goal associated with the proposed trans-disciplinary approach is to use research to solve real-world problems. Common examples are projects which seek to research issues such as climate change or social injustices. The literature proposes that disciplines must be synthesised or transcended in order to fulfil this goal.

However, as argued in Chapter 7, this type of research involves making presuppositions about what is important to research and is therefore carrying out research in the same way as usual disciplinary research, with the difference that it may be a new discipline or research perspective which is being established. It is highly likely that interdisciplinary research will play a significant role in new research perspectives that are established since, due to the progress of disciplinary knowledge, there will probably be many inter-dependent areas in which existing disciplines can provide relevant information. Importantly, this is no different to the Inter-Disciplinary Approach discussed above whereby other disciplines are drawn on to the extent that they are relevant to another research perspective.

The third approach to psycho-legal research which has been established by this thesis is therefore an acknowledgement that psychology and law can be brought together in order to solve real-world problems, but that this possibility is part of the more accurate observation that they can interact in the same project to the extent that they are both relevant to a research perspective that is neither legal nor psychological. This could be the research perspective of a third existing discipline, for instance Criminology, or a new research perspective which differs from existing disciplines, including those that focus on real-world problems. An example discussed in Chapter 2 was how psychology and law could be brought together as relevant to the issue of mistaken eyewitness identification as an instance of injustice. This is an example of how psychology and law could be relevant to a new research perspective that takes wrongful conviction based on mistaken eyewitness testimony as a real-world problem. It is a new research perspective because it contrasts to how the issue of eyewitness testimony is seen by the law, which takes it as one element of a fair trial that has to be balanced with other legal factors. It also contrasts to how the issue would be seen by psychology, which takes it as an issue of human perception.

Under this Third Perspective Approach, ‘Why’ psychology and law can be combined is because they may both be relevant and therefore able to contribute expertise to another non-legal and non-psychological research perspective. The ‘How’ of such an approach is that they will each provide relevant information to this separate research perspective. The ‘To What Ends’ or benefits is that the relevant information from law and psychology can

contribute to the separate research perspective and lead to change and improvement within this third research perspective to the extent that this information is relevant.

Regarding its methodological basis, the Third Perspective Approach draws from the Inter-Disciplinary Approach in terms of its emphasis that knowledge can be pooled across disciplines in order to answer questions that exist within inter-dependent disciplinary areas. Here, for instance, that both law and psychology may be better placed to help answer some of the questions which Criminology has. The establishment of the Third Perspective Approach as distinct is in relation to psycho-legal research specifically. It demonstrates that both psychology and law can be relevant to another research perspective, including new ones, not only to each other. This emphasises that psycho-legal research can indeed have an important role to play in research that helps to solve real-world problems, even if the current method of the trans-disciplinary proposal is incorrect and needs to be reformulated. Similar to the Additive Approach, the Third Perspective Approach is an important addition to the current psycho-legal literature which currently omits this possibility regarding how psycho-legal research can contribute to other disciplinary and research perspectives.

The framework of the Inter-Disciplinary, Additive, and Third Perspective Approaches is summarised in Table 2.

Table 2. A New Methodological Framework for Psycho-Legal Research

Approach		Why	How	To What Ends
Inter-Disciplinary Approach	Legal Perspective Branch	Psychology can provide relevant information to Law (for both empirical and normative or conceptual legal issues).	Psychology contributes relevant information to legal issues.	Law incorporates the relevant information which is provided by psychology, leading to improvement of legal knowledge to the extent that psychology is relevant to the legal issue.
	Psychological Perspective Branch	Law can provide relevant information to psychology.	Law contributes relevant information to psychological issues; by providing information on human thought and behaviour in the legal context, or by providing information on the effects of law on human thought and behaviour.	Psychology incorporates the relevant information which is provided by law, leading to improvement of psychological theory to the extent that law is relevant to the psychological issue.
Additive Approach		Both law and psychology presuppose	The knowledge that is provided by law and	Through a comparison of the perspectives with

	different research perspectives and therefore provide different knowledge and information with regard to particular topics and concepts.	psychology on a topic or concept can be summarised and added together so that their perspectives can be compared.	regard to a particular topic, the presuppositions made by each discipline can be exposed and challenged, and our understandings of the particular topic can be expanded.
Third Perspective Approach	Both law and psychology may be relevant to a separate non-legal and non-psychological research perspective. This separate research perspective can be a new research perspective, such as one which focuses on real-world problems, or an existing discipline.	Psychology and law contribute relevant information to this separate research perspective.	The separate research perspective incorporates the relevant information provided by law and psychology, and develops to the extent that this information is relevant.

Significance and Implications

This thesis has several important implications. Firstly, it provides answers to the main debates which occur regarding the methodology of psycho-legal research and interdisciplinary research.

Regarding psycho-legal literature, one of the main critiques is that there are limits to the ability of empirical psychological knowledge to contribute to normative or conceptual legal issues, such as what legal responsibility means or whether and how someone should be held responsible for negligence. This critique was introduced in Chapter 1 and evaluated in Chapter 4. However, this thesis has demonstrated through its analysis in Chapter 5 that empirical knowledge can be relevant to normative and conceptual issues in the same way that it is relevant to empirical issues. An example discussed in the thesis was how psychological information can provide relevant information to the normative issue of whether individuals should be held responsible under criminal retributive legal practices, by providing information on whether the folk psychological view of human agency which underlies retributive practices is accurate.

The critique should therefore be reformulated as an acknowledgement that it is unlikely that psychological empirical knowledge will be determinative of legal normative or conceptual issues, just as it is often unlikely that psychological empirical knowledge will be determinative of legal empirical issues. This is reflected in the established Inter-Disciplinary Approach which demonstrates that the contribution of psychology to legal issues is dependent on how the psychological fact is considered relevant, and therefore how it may need to be balanced against other legally relevant factors. This distinction is important because it recognises that psychology does have a potential role to play in contributing to legal normative and conceptual issues, while acknowledging the challenge that such a role is unlikely to be determinative and therefore may not always lead to an actual change in legal requirements.

Another challenge made towards psycho-legal research discussed in Chapter 1 under the Alternate Proposal is that cost-benefit issues have to be considered before the law takes account of relevant psychological information. For instance, psychology may prove that

certain measures such as including expert witnesses may help to ensure that only accurate and reliable eyewitness identification has an effect on the legal judgment. It has been argued that factors such as whether this will increase the length of trial need to be considered before deciding if expert witnesses should be legally required for eyewitness trials. This challenge is valid as reflected in the real-life psycho-legal research analysed in Chapters 3 and 4, but as discussed in this thesis, can be more accurately stated.

It is due to the relevance of psychology to law that there is the possibility for psychology to contribute to legal change. As such, the extent of change to the legal requirements depends on how psychology is relevant to the legal issue and this a better way to understand the 'cost-benefit' issues that need to be considered. They are those factors which are also relevant to the same legal issue and are affected by the legal change which the psychological information suggests. For instance, both ensuring accurate and reliable eyewitness testimony and ensuring timely access to a legal judgment are relevant for the legal issue of what is required to ensure a fair trial. The need to ensure timely access to justice becomes a 'cost' issue that needs to be considered because it could be negatively impacted by requiring expert witnesses. This is an acknowledgement that psychological information on improving the reliability of eyewitness testimony is not determinative of the legal issue of what the legal requirements for a fair trial are but instead needs to be balanced with other legally relevant factors.

The new methodological framework established by this thesis thus provides a way to address the cost-benefit challenge that is often made towards psycho-legal research by emphasising that such psychological information is still relevant and therefore psycho-legal study still plays an important role in exposing these psychological inaccuracies, even if it does not lead to a change in the legal requirements due to considerations that the psychological fact may not be determinative of the legal issue. This is a more accurate identification of the relationship between law and psychology than the current proposals in the literature because it highlights that how law changes under the provision of relevant psychological fact is dependent on how the psychological fact is relevant to the legal issue.

Secondly, the new framework emphasises how the existing psycho-legal literature omits the Psychological Perspective Branch, the Additive Approach and the Third Perspective

Approach as available interdisciplinary methods for psycho-legal research. As well as restricting the potentials of psycho-legal interdisciplinary research, this can be seen as violating elements of value neutrality. As argued in Chapter 5, once it is acknowledged that research is produced under chosen perspectives of what is important and significant to research, it becomes necessary to ensure that certain research perspectives are not being ignored in favour of others by the research community. An example of this issue is the feminist movement which highlights that, while empirically accurate, if the feminist perspective is ignored in terms of which issues are seen as important to research and how, this can lead to the production of biased research as a whole.[13] Translating this to psycho-legal research, there is a requirement that psycho-legal researchers do not focus only on combining law and psychology to the benefit of one research perspective when it may also be able to contribute to other research perspectives.

Mainstream psycho-legal literature currently focuses on an approach which uses psychology to prove an inaccurate assumption which the law has made and through this make an argument for changes to legal requirements. However, change to legal requirements can be identified through the three established approaches to psycho-legal research as only a possible outcome of psycho-legal research which focuses on the legal perspective and is also dependent on factors outside of the control of psycho-legal researchers. These factors include how and whether the psychological fact is in fact relevant to the particular legal issue of what the legal requirements are or should be.

Highlighting the problem with the current emphasis on the outcome of legal reform is an important point which has practical significance. It was identified in Chapters 3 and 4 that psycho-legal studies in real-life do seem to assume sometimes inaccurate conceptions of what the legal issue is, in order to provide psychology with a greater role than it does have in arguments of reform to legal requirements. For instance, an assumption that the legal issue is how to prevent all inaccurate eyewitness evidence when the legal issue is in fact how to balance the rights of the defendant to a fair trial with the responsibilities and functions of the police in catching criminals. This emphasises the pressure and bias that

[13] The feminist movement is not ‘disciplinary’, but the same notion applies to the relation between disciplines since disciplines also make value presuppositions according to what is valuable to research and how. Psycho-legal research is therefore subject to the same problem if it ignores certain disciplinary or other research perspectives.

exists when substantive research outcomes are stated beforehand as preferable. This occurs currently with the mainstream proposal in the psycho-legal literature which holds that legal reform is a substantive research outcome that should be encouraged from psycho-legal research.

It has also been demonstrated that pressure from psycho-legal literature to make an argument for legal reform is a possible explanation for why certain approaches to psycho-legal research are indeed omitted in real-life research. In Chapter 6, the Inter-Disciplinary Approach established by this thesis was used for the first time to perform an empirical analysis into the methods that are used by published psycho-legal studies. This was done in order to evaluate how real-life psycho-legal research is carried out. It identified that the preferred approach demonstrated by research published in three top psycho-legal journals is using psychology to contribute to an argument for legal reform, even where it was possible for such studies to use legal contexts in order to build on psychological theory, in other words to engage with the Psychological Perspective Branch.

Thirdly, the thesis has made contributions to a deeper understanding of the methodology of interdisciplinary research in general. It has highlighted that the goals usually associated with what has been proposed to be the trans-disciplinary approach can be achieved instead through adding disciplinary perspectives together under the Additive Approach or through the creation of a new research perspective which draws on other relevant disciplines through the Inter-Disciplinary Approach. This has practical implications because it emphasises that there is no requirement to engage in methods that synthesise or transcend disciplinary boundaries. This requirement has been challenged due to the fact that thus far no viable method has been proposed for how conflicting disciplinary perspectives can be synthesised together. Instead, the thesis demonstrates that the stated goals in the existing interdisciplinary literature of enlarging knowledge of topics and concepts, and clarifying or challenging the presuppositions that are made by disciplines, can be achieved through the method of ‘adding’ disciplines together.

Importantly, research which seeks to solve real-world problems has been revealed in Chapter 7 to be essentially a form of disciplinary research, not a form of trans-disciplinary research as proposed by the literature. This emphasises that such research is subject to the

same issues discussed in Chapter 5. This is that research on real-world problems has also made presuppositions regarding what is important and significant to research, for instance how the real-world problem should be defined, and is therefore in similar positions of other disciplines in its production of research from a particular perspective. While the Trans-Disciplinary Proposal suggests that disciplinary boundaries and perspectives are transcended in order to research real-world problems, this thesis demonstrates that this is not the case, and that such research is still bounded by its own presuppositions which can be challenged in the same way as the presuppositions made by other disciplinary perspectives. The establishment of the Third Perspective Approach confirms that interdisciplinary research does have a role to play in research that focuses on real-world problems but emphasises that this is in fact a type of Inter-Disciplinary research whereby multiple disciplines are brought together as relevant to a new research perspective.

Fourthly, and perhaps most importantly, this thesis has provided specific methods for how law and psychology can interact in order to achieve the goals that are associated with interdisciplinary research, and provided explanations for what it is about the disciplines which suggests that these methods are possible and beneficial. This represents an improvement to the current approaches proposed in the literature which can remain abstract or at times inaccurate regarding the methods under which disciplines can interact. Through this, the thesis has discovered three distinct approaches to psycho-legal research. This serves as a useful framework with which psycho-legal research can be analysed in the future. For instance, it can be used to identify the types of psycho-legal research which are being undertaken and to evaluate, as done in Chapter 6, whether there are particular approaches to psycho-legal research which are being omitted and if so why.

The new framework will also be useful for those researchers interested in carrying out psycho-legal and other legal interdisciplinary study. It clarifies the different ways in which law can be combined with psychology and other disciplines. It highlights that the mainstream approach described in the psycho-legal literature is not the only possible approach to take, and that in fact legal interdisciplinary research has a potentially important role to play in contributing to other research perspectives and clarifying the presuppositions which are made by existing disciplinary perspectives. Both these potentials

of interdisciplinary research relate to the methods discussed in Chapter 5 through which researchers can help to maintain the value neutrality of research.

The empirical analysis into published psycho-legal research in Chapter 6 indicates that real-life research does reflect the main research approach that is advocated in the psycho-legal literature. This supports the significance of this thesis by indicating that literature and analysis on the methodology of research does indeed impact on how the research is undertaken in real-life.

Future Research Areas

As noted in the Introduction, one limitation of this thesis is that it has focused on the question of the potential ways in which law and psychology can interact, and has therefore not considered the practical requirements and/or restrictions of undertaking psycho-legal research. Future research into the methodology of psycho-legal study may investigate this issue, for instance whether there are particular approaches to psycho-legal research which tend to receive more funding than others or what skills are required from researchers in order to engage in the different approaches. This could build on the contributions of this thesis by emphasising the practical requirements involved with undertaking psycho-legal research under the three approaches identified.

While this thesis has been the first to utilise the findings from this project in order to carry out empirical investigation into the type of research that is being undertaken by psycho-legal scholars, it is noted that this was limited to an analysis of studies published in three psycho-legal journals and to an analysis of the Inter-Disciplinary Approach. Future research can use the framework established by this thesis to investigate the methods which are used in psycho-legal research that are published in different journals, for instance journals from the legal discipline, and from the perspective of the Additive or Third Perspective Approaches.

With the identification of the Third Perspective Approach, and particularly the emphasis on the ability that psychology and law can be drawn on as relevant to a new research perspective, one interesting area of further study could be to investigate whether any such

new research perspectives are currently being developed by psycho-legal research such that they may evolve into new disciplinary branches themselves. It has thus been noted in various areas of this thesis that there are some particular issues that psycho-legal studies focus on, which are neither purely legal nor purely psychological. In Chapter 6, for instance, the main motivation identified behind many psycho-legal studies was to discover any extra-legal biases that influence jury decision making. This is not a strictly legal issue since the law only requires that extra-legal biases do not influence juror decision making to the extent that their decision cannot be justified by the law. It was also noted that the topic was not developed as a psychological issue since many studies did not draw psychological implications from the studies. This may therefore be evidence that these psycho-legal studies are in fact establishing a new type of research perspective, one which focuses specifically on the factors that influence jury decision making as a real-world problem that can potentially lead to instances of injustice. As psycho-legal research continues, it may therefore prove to be a valuable example of how new research and disciplinary perspectives are developed and created within academia.

More broadly, this thesis has established that additional benefits to psycho-legal research exist beyond what appears to be the current focus in psycho-legal literature on using psychology to contribute to legal issues. It emphasises that the function of psycho-legal research can be expanded such that researchers can consider how law contributes to psychology, and how the assumptions that are made by law and psychology can be challenged. Future research can put this new methodological framework into practice by carrying out psycho-legal research specifically under, for instance, the Additive Approach or Psychological Perspective Branch. Examples of such potential future research studies that would reflect the Psychological Perspective Branch were identified in Chapters 3 and 4 of this thesis.

Summary

Overall, this thesis can be taken to support and even expand on the ambitions of what legal interdisciplinary and psycho-legal research can achieve. It has confirmed that psycho-legal research can indeed attain many of the goals and aims that have already been proposed. These include the aims of using one discipline to contribute knowledge and information to

the other, to highlight and potentially critique the presuppositions of each discipline, and to produce knowledge better suited to answering real-world problems. However, in line with the criticisms and challenges that have been made to psycho-legal research, it is true that the thus far proposed approaches to combining law and psychology have had to be reformulated and re-defined.

Through this reformulation, a new methodological framework for psycho-legal research has been established. It includes three separate approaches for bringing law and psychology together, the Inter-Disciplinary Approach, the Additive Approach, and the Third Perspective Approach. Each of these has different reasons, methods, and goals for combining the disciplines. They answer the conflicts that have been identified regarding the methodology of psycho-legal research, provide a deeper understanding of how the challenges made to psycho-legal research can be answered, and provide needed clarification to the methodology of interdisciplinary research. They also highlight how interdisciplinary research has an important, previously unidentified, role to play in maintaining the value neutrality of social science research. Importantly, the three approaches identified by this thesis provide a new and comprehensive methodological framework for researchers interested in undertaking or evaluating psycho-legal research, one which contributes to the development of psycho-legal research and will ensure that this field achieves its full potentials.

Appendices

Appendix A

Jury Decision Making Articles

This appendix lists the full titles of all the articles which the Scopus search for articles on jury decision making resulted in. The search terms entered in Scopus were ‘juries’ and ‘decision making’ for Title, Abstract, or Keywords, and the Journal ISSN numbers for *Law and Human Behavior, Psychology, Public Policy and Law*, and *Psychology, Crime and Law*. Results were refined to articles published within the years 2009-2019. The full list of articles by journal is provided below. Articles which were excluded from the analysis due to irrelevance of topic are asterisked.

Law and Human Behavior

39 articles, 3 excluded

Jurors' cognitive depletion and performance during jury deliberation as a function of jury diversity and defendant race

Exposure to capital voir dire may not increase convictions despite increasing pretrial presumption of guilt

Closing with emotion: The differential impact of male versus female attorneys expressing anger in court

From meaning to money: Translating injury into dollars Open Access

Keep Your Bias to Yourself: How Deliberating with Differently Biased Others Affects Mock-Jurors' Guilt Decisions, Perceptions of the Defendant, Memories, and Evidence Interpretation

Deconstructing the simplification of jury instructions: How simplifying the features of complexity affects jurors' application of instructions

Mock juror sampling issues in jury simulation research: A meta-analysis

Evidentiary, extraevidentiary, and deliberation process predictors of real jury verdicts

Can expert testimony sensitize jurors to variations in confession evidence?

Juror sensitivity to false confession risk factors: Dispositional vs. Situational attributions for a confession

Affective forecasting about hedonic loss and adaptation: Implications for damage awards

One angry woman: Anger expression increases influence for men, but decreases influence for women, during group deliberation

When Domestic Goes Capital: Juror Decision Making in Capital Murder Trials Involving Domestic Homicide

From the shadows into the light: How pretrial publicity and deliberation affect mock jurors' decisions, impressions, and memory

Lay Understanding of Forensic Statistics: Evaluation of Random Match Probabilities, Likelihood Ratios, and Verbal Equivalents

Mock jury trials in Taiwan-Paving the ground for introducing lay participation

So, what is a psychopath? Venireperson perceptions, beliefs, and attitudes about psychopathic personality

Examining pretrial publicity in a shadow jury paradigm: Issues of slant, quantity, persistence and generalizability

Secondary Confessions: The Influence (or Lack Thereof) of Incentive Size and Scientific Expert Testimony on Jurors' Perceptions of Informant Testimony

*Hypothesis testing in attorney-conducted voir dire

Same score, different message: Perceptions of offender risk depend on static-99R risk communication format

Mock jurors' use of error rates in DNA database trawls

A trap for the unwary: Jury decision making in cases involving the entrapment defense

Innumeracy and unpacking: Bridging the nomothetic/idiographic divide in violence risk assessment

*Abstract principles and concrete cases in intuitive lawmaking

If anything else comes to mind... better keep it to yourself? Delayed recall is discrediting unjustifiably

The potentially biasing effects of voir dire in juvenile waiver cases

Estimating juror accuracy, juror ability, and the relationship between them

Science in the jury box: Jurors' comprehension of mitochondrial DNA evidence

I spy with my little eye: Jurors' detection of internal validity threats in expert evidence

Goffman on the jury: Real jurors' attention to the "offstage" of trials

The effects of rehabilitative voir dire on juror bias and decision making

All anchors are not created equal: The effects of per diem versus lump sum requests on pain and suffering awards

*Police-induced confessions, risk factors, and recommendations

Capital jury deliberation: Effects on death sentencing, comprehension, and discrimination

The influence of accounts and remorse on mock jurors' judgments of offenders

Can jurors recognize missing control groups, confounds, and experimenter bias in psychological science?

Complex Questions Asked by Defense Lawyers but Not Prosecutors Predicts Convictions in Child Abuse Trials

Strength of evidence, extraevidentiary influence, and the liberation hypothesis: Data from the field

Psychology, Public Policy, and Law

19 articles, 2 excluded

*Familiar eyewitness identifications: The current state of affairs

A social judgment? Extralegal contrast effects in hypothetical legal decision making

Your Bias Is Rubbing Off on Me: The Impact of Pretrial Publicity and Jury Type on Guilt Decisions, Trial Evidence Interpretation, and Impression Formation

Seeing red: Disgust reactions to gruesome photographs in color (but not in black and white) increase convictions

Religion at work: Evaluating hostile work environment religious discrimination claims

Science, technology, or the expert witness: What influences jurors' judgments about forensic science testimony

Life or death: An examination of jury sentencing with the Capital Jury Project database

The gist of juries: Testing a model of damage award decision making

The effect of liability stipulation on damage awards in a personal injury case

Instructions on reasonable doubt: Defining the standard of proof and the juror's task

Do they matter? A meta-analytic investigation of individual characteristics and guilt judgments

Do scores from risk measures matter to jurors?

Stereotypical and counterstereotypical defendants: Who is he and what was the case against her?

The psychology of jury decision making in Age discrimination claims

*Interrogation-related regulatory decline: Ego depletion, failures of self-regulation, and the decision to confess

Dangerously misunderstood: Representative jurors' reactions to expert testimony on future dangerousness in a sexually violent predator trial

Neuroimages as evidence in a mens rea defense: No Impact

CAPITAL JURY DECISION-MAKING: The Limitations of Predictions of Future Violence

THE GATEKEEPER EFFECT: The Impact of Judges' Admissibility Decisions on the Persuasiveness of Expert Testimony

Psychology, Crime, and Law

22 articles, 2 excluded

Mock-juror reactions to multiple interview presentation and rapport-building

The Mr. Big technique on trial by jury

*Limitations on the ability to negotiate justice: attorney perspectives on guilt, innocence, and legal advice in the current plea system

*The construction of allegedly abused children’s narratives in Scottish criminal courts

The neuroscience of morality and social decision-making

Effects of judicial instructions and juror characteristics on interpretations of beyond reasonable doubt

Improving the effectiveness of the Henderson instruction safeguard against unreliable eyewitness identification

Not separate but equal? The impact of multiple-defendant trials on juror decision-making

Jury instructions and mock-juror sensitivity to confession evidence in a simulated criminal case

Attitudes, anger, and nullification instructions influence jurors’ verdicts in euthanasia cases

Juror perceptions of the interpersonal-affective traits of psychopathy predict sentence severity in a white-collar criminal case

The influence of pretrial exposure to community outrage and victim hardship on guilt judgments

Cigarette cravings impair mock jurors' recall of trial evidence

On the power of secondary confession evidence

The effects of mortality salience and evidence strength on death penalty sentencing decisions

Cautioning jurors regarding co-witness discussion: The impact of judicial warnings

Police-induced confessions: An empirical analysis of their content and impact

Identifying and measuring juror pre-trial bias for forensic evidence: Development and validation of the Forensic Evidence Evaluation Bias Scale

'Does the jury really need to hear it all?': The effect of evidence presentation practice on jury assessment of children's eyewitness testimony

Behind closed doors: The effect of pretrial publicity on jury deliberations

Jurors believe interrogation tactics are not likely to elicit false confessions: Will expert witness testimony inform them otherwise?

Predicting guilt judgments and verdict change using a measure of pretrial bias in a videotaped mock trial with deliberating jurors

Appendix B

Analysis of Jury Decision Making Articles

This appendix presents the full analysis carried out in Chapter 6 of all jury decision making articles within the sample, in tabular form.

Article	Legal			Psychological		
	Framing	Implications	Limitations	Framing	Implications	Limitations
Jurors' cognitive depletion and performance during jury deliberation as a function of jury diversity and defendant race	Legal Focuses on legal context by mentioning jury reforms, the issue of ethnic minority representation in juries and the potential that diverse juries can reduce racial bias in	Legal Uses results to provide legal implications	Legal Stresses importance of ecological validity and ability to generalise results to the legal context	Psychological Mentions two psychological theories that are relevant on this topic specifying how research on the legal context of jury decision making is different	No Psychological theory mentioned to support hypotheses of study or to explain the psychological findings	No

	legal decisions					
Exposure to Capital Voir Dire May Not Increase Convictions Despite Increasing Pretrial Presumption of Guilt	Legal Focuses the issue on whether exposure to voir dire increases convictio n	Legal Focuses on legal implicatio ns regarding how capital jurors should be chosen in order to ensure a fair trial	Legal Discusse s ecologica l validity issues as the main methodol ogical concern	Psychologi cal Mentions general psychologi cal theory and uses this to make hypotheses and explain results	No Does not use the legal setting to develop psychol ogical theory	No
Closing with emotion: The differential impact of male versus female attorneys expressing anger in court	Legal Focuses on the question of courtroo m strategies for advocate s from the perspecti ve of how to	Legal Specifies legal implicatio ns from the research	Legal	Psychologi cal Expresses interest in the underlying psychologi cal processes. Mentions general psychologi cal theory. Pinpoints	Psychol ogical Uses legal context to build on theory regardin g impact of expressi ons of anger	No Focuses on generaliz ing to the attorney populatio n not difficulti es in generaliz ing to psycholo gical theory

	help attorneys			specifics of legal context; that attorneys may be expected to express emotion in closing statements and whether this therefore differs from other contexts		
From Meaning to Money: Translating Injury Into Dollars	Legal Focuses on the legal aspect of converting qualitative to quantitative judgments in legal decisions	Legal Uses results to suggest legal implications – that 'meaningful' anchors can help jurors arrive at	Legal	Psychological Mentions general psychological theory	No Uses psychological theory as it is relevant to law, not to build on or develop	No

		damage awards				
Keep your bias to yourself: How deliberating with differently biased others affects mock-jurors' guilt decisions, perceptions of the defendant, memories, and evidence interpretation	Legal Focuses on the legal context of how pretrial publicity can affect juror decisions	Legal Focuses on legal implications of results – how they can assist courts and others in understanding how jurors are influenced by pretrial publicity and how this is affected by jury deliberations	Legal	No Focus on psycho-legal literature, not general psychological theory, and on how psycho-legal theories can support or explain the results	No	No
Deconstructing the simplification of jury instructions: How simplifying the features of	Legal Begins with identification of the requirem	Legal Focus is on using results to suggest legal reform	No	No Focuses on psycho-legal literature, using psycho-	No	No

complexity affects jurors' application of instructions	ent for jurors to reach legally correct decisions as the issue	that can improve jurors' comprehension and application of legal instructions		legal theories to support and explain results		
Mock juror sampling issues in jury simulation research: A meta-analysis	Legal	Legal Focuses on the issue of convincing courts/other legal actors to take account of psychological findings	Legal Focuses on the issue of whether results can generalize to the legal context	No Focuses on psycho-legal specific findings	No	No
Evidentiary, extraevidentiary, and deliberation process predictors of real jury verdicts	No Focuses on the methodological difference between simulated	Legal Draws legal implications; that juror deliberation process is	Legal Focuses on ecological validity as a problem and therefore	No Focuses on the methodological difference between simulated and 'real	Psychological Suggests potential psychological explanations that	No

	and 'real life' juror decisions	important and that jurors are not always influenced by extra-legal factors	justification for this current study. Mentions generalisability to law as a concern	life' juror decisions	can be drawn from the results e.g. patterns that can be explained due to the difficulty of making dichotomous decisions	
Can Expert Testimony Sensitize Jurors to Variations in Confession Evidence?	Legal Considers the central issue to be whether jurors can properly weigh confession evidence	Legal Focuses on implications for jury decision making in the legal context, using results to suggest need for safeguards	No	No Cites mainly psycho-legal specific research on juror's ability to evaluate confession evidence	No Mentions general psychological theory briefly in the conclusion but as a way to possibly	No

		in the courtroom			explain the results, not to use the results to add to psychological theory	
Juror sensitivity to false confession risk factors: Dispositional vs. situational attributions for a confession	Legal Places it in the context of a potential problem for fair trials, wrongful convictions	Legal Draws implications mainly for the law or for psycho-legal specific research	Legal	No Cites mainly psycho-legal research	No Utilises psychological theory mainly to support hypotheses Although psychological theory is not supported, does not go into how	No

					legal context therefore suggests change to general psychological theory	
Affective Forecasting About Hedonic Loss and Adaptation: Implications for Damage Awards	Legal Focuses on the specific legal issue of how to calculate hedonic losses	Legal Specifies the implications of the study for legal trials	No	Psychological References general psychological theory on hedonic adaptation and affective forecasting	No Does not use findings to build or develop on psychological theory	No
One angry woman: Anger expression increases influence for men, but decreases influence for women,	Legal Focuses on jury group deliberation and legal context	Legal Discusses implications for jury deliberations	No	Psychological Considers general psychological theory that is relevant to this topic	No Does not use the legal setting to build or develop psychol	No

during group deliberation					ogical theory, rather to build hypothe ses or explanat ions for findings	
When domestic goes capital: Juror decision making in capital murder trials involving domestic homicide	Legal Cites mainly research specific to the legal issue of capital murder trials and domestic homicide	No Focuses on explaining specific results and findings without specifying implicatio ns for law or for general psychologi cal theory. Focuses implicatio ns instead on psycho-legal specific context	Legal Mentions problems of generalisi ng to criminal trials in other US states	No Sees it as mainly a legal issue	No Focuses on explaini ng specific results and findings without specifyi ng implicat ions for law or for general psychol ogical theory. Focuses implicat ions	No

					instead on psycho-legal specific context	
From the Shadows Into the Light: How Pretrial Publicity and Deliberation Affect Mock Jurors' Decisions, Impressions, and Memory	Legal Focuses on the particular issue of PTP bias in legal trials	Legal Makes legal implications explicit Focuses on implications for jury setting only	Legal	No Cites mainly psycho-legal research	No Uses psychological theory to support hypotheses or explain results. Focuses on psycho-legal findings	No
Lay understanding of forensic statistics: Evaluation of random match probabilities, likelihood ratios, and	Legal Introduces it using the legal context of jurors evaluating	Legal Focuses on policy recommendations	Legal	Psychological Also discusses it as a psychological issue; lay interpretati	No Does not use the legal setting to build on psychol	No

verbal equivalents	forensic evidence			ons of statistical evidence	ogical theory	
Mock jury trials in Taiwan—Paving the ground for introducing lay participation	Legal Focuses on legal context Focuses on research specific to the legal context	Legal States legal implications from results Focuses on psycho-specific findings	Legal Notes issue of generalising to the legal context and other jurisdictions	No Focus on psycho-specific literature, not general psychological theory	No Results are not used to build on psychological theory	No
'So, what *is* a psychopath?' Venireperson perceptions, beliefs, and attitudes about psychopathic personality	Legal Considers the particular legal issue of how psychopaths are treated in the legal system	Legal Draws on implications from results for expert witnesses in legal trials, that there may be unfair legal disadvantage for individuals	Legal Mentions issues of generalizability to other jury pools	Psychological Considers psychopathy as a general psychological trait of interest	Psychological Uses results to build on theories regarding layperson views of psychopaths	No

		with psychosis				
Examining pretrial publicity in a shadow jury paradigm: Issues of slant, quantity, persistence and generalizability	Legal Focuses on the legal issue of how PTP impacts on due process Describes the aims of the study as to test concerns of judges	Legal Concentrates on psycho-legal specific implications, and how results can address concerns of judges	Legal	No Focuses on psycho-legal specific literature not on general psychological theories	No	No
Secondary confessions: The influence (or lack thereof) of incentive size and scientific expert testimony on jurors' perceptions of	Legal Introduces the article with a legal case and focuses on juror decision-making	Legal Focuses on implications for psycho-legal setting in particular	Legal	Psychological Mentions general psychological theory of fundamental attribution error	No Utilises general psychological theory to support hypotheses and/or	No

informant testimony		Mentions legal implications regarding additional safeguards that may be needed in legal trials			explain results	
Same score, different message: Perceptions of offender risk depend on Static-99R risk communication format	Legal Focuses issue on the decisions that legal decision makers have to make	Legal Makes suggestions based on results for what legal experts and attorneys should consider	Legal	No Focuses on psycho-specific literature	No Uses psychological theory to explain results	No
Mock jurors' use of error rates in DNA database trawls	Legal Concerned with issues of wrongful conviction, forensic	Legal Uses results to draw legal implications regarding prejudices of jurors	Legal Mentions generalizability to legal setting as a concern	No Focuses on psycho-specific literature and legal framing	No Focuses on legal implications or implications for legal setting	No Does not consider generalisability to psychology as a concern

	DNA testing	and potential need for juror training			in particular Does not build or develop psychological theory	
A trap for the unwary: Jury decision making in cases involving the entrapment defense	Legal Focuses on the legal issue of entrapment defense	Legal Specifies implications for law from the results	No No mention of ecological validity concerns	Psychological Mentions attribution theory	No Uses psychological theory to make hypotheses or explain results	No Does not consider generalisability of legal setting to other settings as a concern
Innumeracy and unpacking: Bridging the nomothetic/idiographic divide in violence risk assessment	Legal Introduces issue as testing the validity of legal decisions on risk	Legal Uses results to suggest legal strategies, focuses on potential future of	No	No Focuses on the legal question of how to make legal decisions on individuals	No Uses psychological theory to explain results	No

		research into other areas of law		from data about groups		
If anything else comes to mind.. better keep it to yourself? Delayed recall is discrediting unjustifiably	Legal Focuses on the legal assumption that is made regarding inaccuracy of eyewitnesses	Legal Uses results to question whether legal decision making can be evidence based and objective	Legal Mentions fact that law student population may not generalize to the legal context	Psychological Makes reference to more general theory on reminiscence	No Does not draw general psychological implications from the legal context	Psychological Discusses some limitations on the stimuli used which would impact on the psychological findings
The potentially biasing effects of voir dire in juvenile waiver cases	Legal Focuses on legal issues such as rising rate of committed juveniles, and issue	Legal Draws implications from results for defendant's right to fair trial	Legal	No References psycho-specific research	No Makes psycho-legal specific contributions	No

	of biased juries					
Estimating juror accuracy, juror ability, and the relationship between them	Legal Focuses the question on legal accuracy of juror decision making	Legal Draws implications for the law from their proposed model	Legal Mentions issues of ecological validity	No Focuses on psycho-legal specific context not general psychological theory	No Draws implications from results for psycho-legal specific context	
Science in the jury box: Jurors' comprehension of mitochondrial DNA evidence	Legal Introduces issue as the legal concern over whether jurors can appropriately employ scientific evidence in legal decisions	Legal Uses results to suggest use of tutorials for juries	Legal Emphasises the importance the study placed on replicating a 'real' trial	No Focuses on jury specific research not general psychological theory	No	No
I spy with my little eye:	Legal	Legal	Legal	Psychological	No	No

Jurors' detection of internal validity threats in expert evidence	Focuses on the legal issue of how judges/juries can safeguard against 'junk science'			Cites general psychological theory on decision making	Uses psychological theory to support hypotheses and explain results	
Goffman on the jury: Real jurors' attention to the 'offstage' of trials	Legal Notes that instructions tell jurors not to pay attention to 'offstage' factors	No Focuses on stating the results of the study and not drawing implications from them	No	Psychological Draws on social psychological theory	No Focuses on stating the results of the study and not drawing implications from them	No
The effects of rehabilitative voir dire on juror bias and decision making	Legal Focuses on the issues of impartial jury,	No Focuses on discussing results from the	Legal Discusses importance of researchi	Psychological References general social	No Discusses results but not implicat	No

	whether judges and attorneys can ensure an impartial jury	study rather than drawing specific implications for the law	ng these issues in 'real life' legal settings	psychological theory	ions from results for psychological theory, particularly as results contradict some of the hypotheses generated by psychological theory	
All anchors are not created equal: The effects of per diem versus lump sum requests on pain and suffering awards	Legal Focuses the issue on juror decision making and the underlying assumptions of legal	Legal	Legal	Psychological Mentions general psychological theory	No Uses psychological theory to support hypotheses and explain results	No

	decision making					
Capital jury deliberation: Effects on death sentencing, comprehension, and discrimination	Legal Introduces issue as one regarding the unfairness and unreliability of capital jury verdicts	Legal Uses results to draw conclusions that death sentencing process is fraught with problems	Legal Justifies study partially as adding to the ecological validity of previous studies Mentions generalizability issues	No Cites psycho-specific research	Psychological Uses results and the legal task specifically to suggest psychological implications	No
The influence of accounts and remorse on mock jurors' judgments of offenders	Legal Talks about legal consequences	Legal Discusses implications for legal defendants	Legal	Psychological Mentions general psychological aspects of the issue e.g. remorse and responsibility	Psychological Uses results from the legal setting to suggest change to psychol	No

					ogical theory	
Can jurors recognize missing control groups, confounds, and experimenter bias in psychological science?	Legal Focuses on the role of psychological science in the legal setting	Legal	Legal Specifies difficulties in generalizing from results to legal setting	Psychological Refers to more general issue of laypersons ability to evaluate scientific/statistical information	No Focuses on discussing results and fitting results into psycho-specific literature or explaining results through the specific differences in methodology rather than by specifics of legal context	No

Complex questions asked by defense lawyers but not prosecutors predicts convictions in child abuse trials	Legal Focuses on issue of child abuse trials and legal outcomes	No Describes results rather than specifying implications for the law	No Does not focus specifically on concerns regarding generalisability to real trials	No Focuses on psycho-legal specific literature	No Focuses on psycho-legal specific contributions	No
Strength of evidence, extraevidentiary influence, and the liberation hypothesis: Data from the field	No Focuses on psycho-legal specific research and psycho-legal specific 'liberation hypothesis' theory	Legal In the conclusion, draws implications from results for legal question of how much jurors are influenced by extra-legal factors	Legal Mentions issue of generalizing to other jurisdictions	Psychological Focuses on psycho-legal specific research but also makes reference to some general psychological theories	No Focuses on psycho-legal specific contributions	No Limitations focused on general issues of potential contamination of results or generalisability to legal setting, not on generalisability to psychological theory

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