The Implications of Experimental Philosophy and Moral Psychology for the Problem of Free Will

by

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Abstract

The problem of free will has a long and intricate history. The millennia of development of the problem have seen the evolution of numerous free will viewpoints. A cursory look at the evolution of the concepts of free will and determinism, the various arguments, counterarguments, complex adjustments to arguments, the variety of sources of empirical research, and empirical insights illustrate the complexity of the debate. This elaborate reality opens itself to a pluralist account of free will and moral responsibility capable of accommodating this complexity and apparent contradiction. In this dissertation, I present such a pluralist account. I argue that a pluralistic approach to free will and moral responsibility makes room for discontinuities, accounts for conflicting free will values and regret, and acknowledges dissimilar responses to moral responsibility situations. I lay out the framework for this approach by engaging with free will research from moral psychology, investigating the findings of the sciences, such as neuroscience and physics, and considering our common-sense understanding of free will.

Key Terms: free will; moral responsibility; determinism; empirical findings; compatibilism; incompatibilism; libertarianism; experimental philosophy; moral psychology; pluralism.

Declaration

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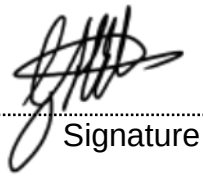

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Chapter One:
Introduction

"In the mind there is no absolute or free will; but the mind is determined to wish this or that by a cause, which has also been determined by another cause, and this last by another cause, and so on to infinity." ~ Baruch Spinoza (E2,P48-49)

You doubtless should not steal. Common sense warns us that stealing is not right. However occasionally stealing appears less wrong, or not wrong at all, after we find out the reason for stealing. For instance, if the reality that your family is starving prompts you to steal a loaf of bread, many would argue that you are not as responsible as someone who steals out of materialism or malice. Additionally, think of a person suffering from a mental condition who cannot control their stealing behaviour. We most likely should not blame them for those cases. But why should people in these situations not take responsibility for their actions? What element of moral responsibility is absent in these situations that diminishes their blameworthiness?

Moral responsibility has traditionally been conceptualised as having two parts. Firstly, the possession of a moral duty and secondly, as meeting the requirements for being worthy of blame or praise for a morally substantial action or exclusion (Honderich, 2005:815). These two conceptualisations are linked in that a moral agent can be regarded as being responsible for neglecting to carry out a moral duty (Honderich, 2005:815) or for acting contrary to a moral duty, for example, lying when one has a duty to tell the truth. The matter of moral responsibility is intrinsically linked to the free will problem and debate (Kane, 1998:32-35).

The field of moral responsibility and free will is so well established that a great many positions that engages with free will, such as liberalism, compatibilism, and incompatibilism, have developed and that the various positions have created evermore intricate examples and counterexamples to support their claims and try to defeat the claims of their opponents (Fischer, Kane, Pereboom & Vargas, 2007). This has resulted in a theoretical or dialectical stalemate. For philosophy to move past this dialectical impasse it might be that philosophers should pay more attention to the

empirical research being generated and thereby augmenting the philosophical theories with empirical findings (Garnett, 2013). It is worth noting that the field of experimental philosophy[1] and empirical approaches to philosophy, although relatively new, are growing quickly with many philosophers, such as Derk Pereboom (2001), Manuel Vargas (2007), Tamler Sommers (2009), and Shaun Nichols and Joshua Knobe (2017) appealing to empirical findings to inform their views.

Moral judgments concerning which acts an agent is morally responsible for have traditionally been dealt with by means of conceptual evaluation in philosophical analysis (Sinnott-Armstrong, 2014:xiii). The theoretical analysis of notions such as moral responsibility, blameworthiness and free will were isolated from the realm of empirical science (Sinnott-Armstrong, 2014: xiii) and mostly fell within the ambit of philosophers. This trend began to shift when Peter Strawson[2] published "Freedom and Resentment" (1962[2008]). In his paper, Strawson (1962[2008]) argues that work on moral responsibility should focus on understanding authentic practices, i.e. the way in which ordinary, philosophically untrained people view morality in their daily lives (Strawson, 2008:1, 22), which accompany the attribution of responsibility, rather than metaphysical conjecture. In *After objectivity: an empirical study of moral judgment* (2004a) Shaun Nichols conducted early experimental philosophical research on authentic practices by presenting participants with a short story about two individuals behaving in certain ways and making certain claims. Nichols asked the participants to express their opinion on the conduct of the two characters. His study represents an early attempt to explore moral judgements experimentally by investigating how ordinary people interact with moral questions in their daily lives. These two studies situated my own research and serve to illustrate that appeals to empirical research are not new which lends legitimacy to such appeals.

[1] Experimental philosophy is an interdisciplinary method that brings together notions that had previously been considered as distinct domains of study (Knobe & Nichols, 2017). There are various approaches to experimental philosophy. Some researchers use experimental evidence to strengthen an idea that contests more traditional approaches in analytic philosophy, while others use experimental data to bolster positive positions about traditional queries, and still other thinkers investigate questions about how people normally consider and react to these questions (Knobe & Nichols, 2017).

[2] I deal with Strawson's work in some depth in Chapter Three. For the purposes of this introduction, I am briefly focusing on Strawson's appeal to better understanding experimental philosophy.

Strawson's appeal to understanding the authentic practices involved in moral responsibility has led many contemporary philosophers, such as Nichols (2007), Knobe (2011), Sarkissian (2016) and Beebe (2016), to incorporate "ordinary practice" or "folk morality" into their accounts of blame, praise, and free will. This has resulted in a richly invigorated philosophical battlefield where different philosophical positions produce evermore ingenious examples and counter-examples to show how rival groups have failed to produce theories which adequately align with authentic practices (Doris, 2010:321-322). Despite the vigour of the exchanges a dialectical impasse has resulted (Fischer, 1995:83-85). This has continued to the point where the theoretical discourse appears to be at a constant impasse which is balancing upon an intricate network of interlocking arguments and their counters. With an appeal to empirical research, new insight into the problem of free will may contribute to countering this impasse.

Moral psychology, which often uses empirical research methods, contributes enormously to researchers' and thinkers' authentic understanding of moral responsibility and free will (Sinnott-Armstrong, 2014, xiii; Pereboom, 2001, xiii-xiv). Moral psychology and empirical research methods are becoming more valuable in philosophy due to the findings of psychologists and neuroscience. Psychologists have discovered instinctive and illogical influences on the actions of agents, i.e. influences which are unconscious and more related to instinct than logical rational thought processes, and neuroscientific discoveries have contributed greatly to understanding the neural causes of our actions which are not obvious by observation alone (Sinnott-Armstrong, 2014, xiii; Pereboom, 2001, xiii-xiv). This trend of appealing to empirical methods to inform and gain new insight into theoretical philosophical positions is not novel and has contributed to philosophical understanding.

Moral psychology has traditionally been dedicated to the analysis of the conceptions which are employed in describing the psychological nature of moral agents and the assessment of the normative matters which are connected to these conceptions (Honderich, 2005:631). With the continuing accumulation of valuable findings moral psychology has begun to investigate evermore empirical questions related to normative and ordinary practices (Tiberius, 2015:4). The interdisciplinary field of moral psychology bridges the gap between theoretical philosophical analysis and empirical

psychological research, providing interesting ways to engage with the problem of free will.

1.1. The Research Problem

From the above discussion, the following research question becomes pertinent: “How has experimental philosophy and moral psychology contributed to resolving the perennial problem of free will?”

My research is concerned with moral responsibility and more specifically with the free will problem in the context of moral psychology and empirical findings. A great deal of research has been conducted regarding the positions of compatibilists and incompatibilists, i.e., those that believe free will and determinism are compatible and those who do not. It is a current topic of eager empirical research in moral psychology, especially with regards to folk morality, which is the normative ordinary way in which philosophically untrained people view morality in their daily lives (Sarkissian, 2016:212).

1.2. Objectives of the Study

The aim of this dissertation is to expose and attempt to provide a plausible alternative to the dialectical impasse which exists between the various free will positions. This will be achieved by laying out the psychological and empirical research which is necessary for establishing a greater understanding of ordinary moral practices. My position is that the philosophical debate on free will can gain greater clarity by engaging with the empirical findings from moral psychology on the question of moral responsibility.

The research seeks to:

1. Examine the philosophical, psychological, and empirical landscape related to the free will debate.
2. Investigate the research on the ordinary way in which people consider morality in their daily lives.

3. Evaluate the significance of the new insights from experimental philosophy and moral psychology and whether they provide greater clarity in resolving the problem of free will.
4. Advance a pluralist approach to the problem of free will.

1.3. Methodology

A qualitative research design has been adopted for the purposes of this dissertation. I am concerned with the “what”, “why” and “how”, rather than the “how many”, questions of moral responsibility and free will considering moral psychology. My approach is exploratory and interpretive in nature. Interpretive research methods are concerned with the philosophical and methodological means of recognising social authenticity (Given, 2008:464). The central aim of the interpretive method is to generate greater understanding, where understanding is inalienable from interpretation (Given, 2008:464). To some extent, all social research, that is research concerned with social reality, is interpretive in that it functions to understand the ordinary practices of people in their daily lives (Given, 2008:464). With many fields related to philosophy, such as moral psychology, becoming more interested in linking philosophical analysis to ordinary practices, the relevance of interpretive methods in philosophy have been expanding (Honderich, 2005:441). Such methods are especially pertinent for this dissertation as the research focuses on bridging authentic ordinary practices and experiences with theoretical analysis to create a coherent picture of understanding of the free will debate.

Adopting the exploratory approach, which is concerned with gaining a better understanding of issues and greater insight into the problem by exploring the latest empirical data, allows me the advantage of flexibility. I will be able to adjust my research with the changing literature to develop deeper levels of understanding. This form of research has the added advantage of serving as a foundation which can be used in an interdisciplinary way. This method will also allow me to engage with the complexity of debates and perspectives regarding moral responsibility and free will and to provide meaningful philosophical analysis.

1.4. Outline/Overview

This dissertation is divided into six chapters. Chapter One serves as the introduction to the dissertation. It provides an outline of the research problem, objectives, and the methodology. It concludes with a brief overview of the various chapters and a clarification of key concepts.

Chapter Two provides a historical overview of the free will debate and its many intricacies by examining its roots. To appreciate the network of philosophical arguments and counter arguments related to the problem of free will and how they are related to folk morality and experimental philosophy it is important to note how the debate between free will and determinism evolved within western philosophy. In this chapter I analyse the basic debate between free will and determinism, consider how free will was dealt with in the ancient Greek tradition (of fate), investigate the role of divine predestination and omniscience, and look at the early forms of determinism and indeterminism.

Chapter Three examines the dialectical impasse between the various philosophical positions about free will. It exposes the tangled web of philosophical positions and counter-positions and reasons why new insights for resolving the problem are needed. The chapter provides the basis upon which to investigate whether recent developments in the fields of moral psychology and experimental philosophy can contribute to breaking the dialectical impasse.

Chapter Four is dedicated to an exploration of the free will empirical developments in the field of folk morality, physics, neuroscience, and psychology. It begins by focussing on folk intuitions on free will and choice with specific attention on the work of Shaun Nichols on folk morality. The chapter then investigates the impact of recent research in physics on free will and determinism. Since quantum mechanics is the dominant theory concerning the motion of physical objects, it will be discussed in some detail. That will be followed by an examination of experiments in neuroscience which are influenced by the notion that indeterministic behaviour in animals is a result of evolutionary adaptation. This will then be complemented by an analysis of neuroscientific research which investigates conscious choice by participants' brain

activity and related intentional actions. In the final section of the chapter, I consider some of the psychological research on free will to show that there exist powerful unconscious influences on a person's decision-making.

Chapters Two through Four build upon each other and form a foundation which allows me to advance a pluralist account for free will and moral responsibility which is the focus of Chapter Five. I engage with philosophical and empirical considerations to bring new insight to the free will debate and a possible solution to the dialectical impasse. I begin by discussing the nature and value of pluralism; highlighting that a pluralist approach makes room for discontinuities, accounts for conflicting free will values and regret, and acknowledges dissimilar responses to moral responsibility situations. Firstly, I engage with free will research from moral psychology to highlight the importance of emotions to our moral responses, how these emotions are linked to internalised rules, and how there are a plurality of these moral rules. Secondly, I investigate the findings of the sciences, such as neuroscience and physics to show that rejecting free will is a mistake, that science supports the notion of free will and that people could, based on the empirical evidence, be presumed to be intentional agents with decision-making abilities. Finally, demonstrate that a pluralistic consideration of our common-sense intuitions about free will addresses many of the apparent contradictions and accommodates conflicting free will values and makes room for discontinuities.

The last section serves as the overall conclusion to the dissertation.

1.5. Clarification of Key Concepts

This is a non-exhaustive list of some of the key concepts and terms that shall feature throughout this dissertation including some working definitions.

Compatibilism: Compatibilism sits in opposition to incompatibilism. It is the view that free will and determinism are mutually consistent. Compatibilists defend this position by suggesting that the opposite of free will is not having one's mental states and acts determined but by having them coerced or compelled (Vincent, Poel & Hoven, 2011:1).

In this way compatibilists argue that an agent is morally responsible, even if determined, so long as the agent is able to act differently if they had chosen otherwise (Honderich, 2005:151). Some notable compatibilists are David Hume, John Stuart Mill, Gary Watson, Susan R. Wolf, P. F. Strawson, and R. Jay Wallace.

Determinism: Determinism is the philosophical belief that all our mental states and actions are determined, that is to say that our futures, choices and decisions are permanent and unalterable (Honderich, 2005:313). In the field of moral responsibility determinism is often positioned as contrasted with free will. Baruch Spinoza, Albert Einstein, Peter van Inwagen, and Ted Honderich are notable determinists.

Folk Morality: Is that field of philosophy which is concerned with studying the way in which ordinary, philosophically untrained, people view morality in their daily lives (Sarkissian, 2016:212). This area of research has been steadily gaining momentum and producing a great deal of interesting work at the meeting place of philosophy and psychology.

Free Will: At its simplest, free will is the ability to choose between different courses of action without restraint (Honderich, 2005:313-14). The concept of free will has long featured in various philosophical fields and in the works of many prominent thinkers as an indicator of one's control over one's own actions.

Incompatibilism: Incompatibilism is the position that determinism and free will are diametrically opposed concepts. This view holds that if our mental states and actions are determined and our futures are fixed then we do not have the free will necessary to be held responsible for our actions (Honderich, 2005:314).

Libertarianism: Libertarians are incompatibilists who believe that determinism is false and that the free will necessary for moral responsibility does exist. Conversely, hard determinists/incompatibilists argue that determinism is our reality while free will is an illusion (Pereboom, 2001:1-2).

Moral Psychology: Moral psychology lies at the intersection between moral philosophy and psychology. Moral psychologists study the development of moral

identities, which is the process by which ordinary people assimilate moral values with the growth of their individual characters. Moral psychology can be differentiated from moral philosophy in that the former generally concerns itself with ‘how’ people make moral choices, while the later focuses on ‘what’ moral judgments people should make (Doris, 2010:1-2,5).

Chapter Two:
Free Will and Determinism: A Brief History of the Free Will Debate

To appreciate the network of philosophical arguments and counter arguments related to the problem of free will and how they are related to folk morality and experimental philosophy, it is helpful to first look at how the debate between free will and determinism evolved within western philosophy. In this chapter I set out the basic debate between free will and determinism, look at how free will is dealt with in the ancient Greek tradition (of fate), investigate the role of divine predestination and omniscience, and inspect the early forms of determinism and indeterminism.

2.1. Free Will and Determinism

> "Nothing happens in vain, but everything from reason and by necessity."
> ~ Leucippus (Taylor, 1999:3)

As is the case with numerous other philosophical problems, such as the problem of evil and the mind body problem, the free will problem has its roots in common sense (Nichols, 2015:17). For instance, on the one hand it seems intuitively true that I can freely raise my hand or not raise my hand, that is, if I raise my hand, it appears apparent that I could have done otherwise. However, on the other hand it seems intuitively true that things around us happen for a reason. When a fire breaks out, we generally and intuitively inquire as to the cause, that is, the reason for the fire. The common-sense roots of the free will problem have meant that it has developed in several different forms across many sectors of human society, for example, religion, spirituality, secular society, and science (Nichols, 2015:17).

The development of the problem of free will in many different areas of thought and life, has also meant that there is much disagreement as to how free will should be defined. A basic conceptualisation of free will is that a person has the ability to make their own decision without being compelled to do so (Kane, 2005:2; McKenna & Pereboom,

2016:6). Such a freely made choice presupposes that the decision maker could have chosen otherwise. Defining free will in terms of the ability to choose freely links it with the concept of moral responsibility (Kane, 2005:4). This means that a person is morally responsible for their actions only if they made their choices to act freely (Kane, 2005:4; McKenna & Pereboom, 2016:4). Having free will linked with moral responsibility in this way is a critical factor in its conceptualisation and in the way philosophers discuss it (McKenna & Pereboom, 2016:11).

In contrast to free will, determinism holds that everything happens because of what occurred earlier and can thus not be altered, that is, everything happens for a reason (Watson, 1982:2). This notion applies to the nature of events as well as human action and is thus related to the question of human free will. For instance, if we were to reverse time by 50 years and then let time run its course again, determinism argues that it would run the exact same course. Determinism is an ancient idea, and the earliest known mention of the concept was by the 5th century BCE philosopher, Leucippus (Taylor 1999; De Ley 1968). He wrote that "…[n]othing happens in vain, but everything from reason and by necessity" (Taylor, 1999:3; Leucippus n.d.).[3] An investigation of determinism is relevant to any discussion about free will and human action since determinism appears to threaten the ability to freely act or choose our behaviour (Hoefer, 2016). If everything happens for a reason and the present is determined by the past and the laws of nature then can a person be said to have free will, that is, can a person meaningfully claim that they freely choose to act or behave in a certain way, if their actions are determined? More importantly, can others hold a person responsible for their behaviour if it is determined (Hoefer, 2016)? Some philosophers, such as David Hume, have argued that determinism is in fact a necessary condition for free will.[4]

There are three traditional philosophical positions related to free will and determinism. They are best understood in relation to the conditional statement: If determinism is

[3] οὐδὲν χρῆμα μάτην γίνεται, ἀλλὰ πάντα ἐκ λόγου τε καὶ ὑπ' ἀνάγκης (Leucippus, Fragment 569 – from Fr. 2 Actius I, 25, 4).

[4] Hume writes that "[a]ctions are, by their very nature, temporary and perishing; and where they proceed not from some cause in the character and disposition of the person who performed them, they can neither redound to his honour, if good; nor infamy, if evil." (Hume, 1777:98)

true, then we do not have free will (Fischer et al., 2007:3). These three positions can be briefly set out as follows:

A. **Libertarians** argue that free will is incompatible with causal determinism, and that agents have free will (Fischer et al., 2007:3; Iredale 2014). They deny that causal determinism is genuine (Fischer et al., 2007:3; Iredale 2014). There are three major types of libertarians. Event-causal libertarians hold that actions which are free are indeterministically triggered by prior incidents. Agent-causal libertarians argue that agents indeterministically bring about free actions. Non-causal libertarians generally contend that free actions are formed by simple mental acts, such as a choice or decision. In the contemporary free will debate, event-causal libertarianism has been most forcefully upheld by Robert Kane (1998). Timothy O'Connor (2000) has produced an excellent argument for agent-causation. Carl Ginet (1990) and Hugh J. McCann (2019) are influential defences of non-causal theories.

B. **Hard determinists**, in contrast, reject the notion of free will and argue strongly for the first part of the conditional statement (Fischer et al., 2007:3; Iredale 2014). One of the most famous statements which exemplifies the idea behind determinism and is widely supported was made by Pierre-Simon Laplace (1749 – 1827). He stated that “We may regard the present state of the universe as the effect of its past and the cause of its future. An intellect which at a certain moment would know all forces that set nature in motion, and all positions of all items of which nature is composed, if this intellect were also vast enough to submit these data to analysis, it would embrace in a single formula the movements of the greatest bodies of the universe and those of the tiniest atom; for such an intellect nothing would be uncertain and the future just like the past would be present before its eyes.” (Laplace, 1951:4)

C. **Compatibilists** deny the entire conditional statement on the grounds that, they believe, it is a mistake to argue that determinism has any significant bearing on our possession of free will (Fischer et al., 2007:4; Iredale 2014). Arthur Schopenhauer reportedly[5] stated that man can do what he wills but he cannot

[5] “Der Mensch kann tun was er will; er kann aber nicht wollen was er will.” was said by Einstein, who claimed to be paraphrasing Schopenhauer. Reportedly from *On The Freedom Of The Will* (1839), as translated in *The Philosophy of American History: The Historical Field Theory* (1945) by Morris Zucker, p. 531.

will what he wills (Schopenhauer & Kolenda, 2005). What Schopenhauer means by this is that a person has free will to do what they want, but their free will does not choose what they want. Although a person may often be free to act in relation to a motive, the disposition of that motive is determined. Compatibilists often identify an example of "free will" as one in which a person had the freedom to act in relation to their own motivation.

These three traditional philosophical positions shall be discussed in greater detail in Chapter Three. I will also show how they are related to free will and determinism and how they can be characterised and understood with reference to the descriptive, substantive, and perspective aspects of free will.

Engaging with the problem of free will can be differentiated into three aspects, namely **descriptive**, **substantive**, and **prescriptive** (Baer, Kaufman & Baumeister, 2008:10; Nichols, 2015:4).

A. The descriptive aspect deals with conceptualising the intuitive understanding which we have regarding free will and responsibility. This type of engagement enquires as to what free will is and what is required for us to be morally responsible (Baer, Kaufman & Baumeister, 2008:12; Nichols, 2015:4).
B. Once the descriptive questions have been dealt with the next stage of the process is to address the substantive questions which involves establishing whether we possess qualities of freedom and moral responsibility, “Do we have free will?” and “Are we morally responsible?” (Baer, Kaufman & Baumeister, 2008:19; Nichols, 2015:4).
C. Dealing with the substantive questions naturally leads to prescriptive concerns about how our practices should change considering our new understanding (Baer, Kaufman & Baumeister, 2008:24-25; Nichols, 2015:4). For instance, if we come to understand that determinism is true then should we stop holding people morally responsible for their actions?

Engaging with the problem of free will descriptively, substantively, and prescriptively allows us to characterise the traditional philosophical positions in the same terms.

A. Libertarians hold that the appropriate description of what free will demands is incompatible with determinism, however, they also hold that our choices

correspond to this demand. Thus, they argue that substantively we do in fact possess free will. Prescriptively speaking, libertarians have no reason to argue for changing the practice of holding people morally responsible for their actions (Baer, Kaufman & Baumeister, 2008:12; Nichols, 2015:6-8).

B. Like the libertarians, hard determinists agree that an appropriate description of free will would show that it is incompatible with determinism. Their point of departure is from their claim that, substantively, determinism is true and that we do not have free will. With this substantive view hard determinists face critical, prescriptive, questions about whether and how we should alter our practices and how we treat each other (Baer, Kaufman & Baumeister, 2008:19; Nichols, 2015:9-10).
C. In contrast, compatibilists argue that an appropriate description of free will demonstrates that it is consistent with determinism, and that determinism does not lead us to think that we need to prescriptively change our practices (Baer, Kaufman & Baumeister, 2008:24-25; Nichols, 2015:10-11).

Having thus far briefly explained the basic debate about free will and how it relates to determinism, as well as why determinism is an important question regarding free will, I now turn to the development of the concepts of free will and determinism starting with theology and spirituality in classical philosophy.

2.2. The Problem of Theology and Spirituality in Classical Philosophy

In this section, I discuss the influence of theology and spirituality in the development of the free will debate, by looking at the Greek concept of fate and the Christian concepts of divine predestination and foreknowledge.

2.2.1. Fate in the Greek Tradition

One of the oldest notions of determinism is the ancient Greek concept of fate. The fatalist school of thought holds that future events occur no matter the action which one takes (Rice, 2018). Traditionally, fatalism could be discussed with regards to an appeal to logical principles and metaphysical inevitability, an appeal to the existence and nature of God, and/or an appeal to causal determinism (Rice, 2018).

The story of Oedipus in Sophocles' play, *Oedipus Rex*[6], is a prime example of the ancient Greek conception of fate (Sophocles, 1982). In the play, Oedipus is fated to kill his father and marry his mother. Despite the characters' best efforts to avert this fate, it nonetheless comes to pass. In Homer's *Iliad*[7] we see this same fatalistic view personified as fate. A recurring theme in ancient Greek literature is the personification of fate, where fate is personified as the three Fates: Clotho, Lachesis, and Atropos (Solomon, 2003:442). An interesting feature that is often ascribed to the Fates in Greek literature is that they cause everything and that even the gods do not have the power to change fate (Solomon, 2003:437). In his work, *Zeus Catechized*[8], Lucian draws stark attention to this feature and even goes so far as to question the appropriateness of ascribing moral responsibility if all events are fated to occur (Lucian, 1960:59-87).

It appears that although ancient Greek thought carved out a place for fate in its cosmology, it did not conceive of fate as determining every single action or behaviour of people, but rather only the major life events, such as birth, death, marriage, etc. (Rice, 2018). Looking at Oedipus's story, we can then say that he was fated to marry his mother but not to plan the wedding. Oedipus could freely choose the path he took, although the destination was fated. So, in the ancient Greek tradition, both determinism and free will existed in tandem, where major life events were fated, but the route to fated outcome could be freely chosen (Rice, 2018). As will be discussed

[6] *Oedipus Rex* is a Greek tragedy about the story of King Oedipus of Thebes, who is destined to kill his father and marry his mother (Sophocles, 1982). Thebes is suffering from a plague that can only be cured if the person who killed the previous king is expelled. The prophet Teiresias asserts that the killer is Oedipus. An oracle informs Queen Jocasta that her son would be destined to kill her husband, so she left her infant child—Oedipus— exposed in the hope that he would die. Oedipus survived and unwittingly killed his father prior to wedding Jocasta and becoming the new king. When they comprehended the reality, Jocasta kills herself by hanging, and Oedipus blinds himself and goes into self-imposed exile.

[7] *The Iliad* is an epic poem by Homer about a number of weeks in the last year of the decade-long Trojan War (Homer, 2004). On the side of the Greeks, Agamemnon and Achilles, the Greeks' best warriors, disagree over a hostage woman, and Achilles refuses to engage in battle. The war turns in the Trojans' favour. Achilles's friend Patroclus disguises himself as Achilles and enters the battle. He is eventually killed by the Trojan prince Hector. Achilles re-joins the fight to take revenge for his friend. He slays Hector and mutilates the body. Achilles buries Patroclus and agrees to send Hector's body to Troy, where it is interred.

[8] In *Zeus Catechized* Cyniscus questions Zeus on predestination and free will, and on the *raison d'être* of the gods (Bobzien, 1998). The conversation takes the Cynic standpoint against the Stoics.

below, this line of thinking led to the Stoics supporting a compatibilist view of the world (Salles, 2001).

It is this interplay between fated outcomes and freely choosable paths that allowed the ancient Greeks to hold each other morally responsible for their actions (Bargdill, 2006:206-209). But if some actions are fated, then we must face the difficult question of how one can be held responsible for them. In the *Iliad*, Agamemnon argues that due to the will of the gods and fate he is not morally responsible for his actions (Homer, 2004:58). The difficulty of assigning blame in a determined world is highlighted in Aeschylus's play *Agamemnon*[9], where Agamemnon's wife claims that she cannot be held responsible for killing him since it was fated (Aeschylus, 1984:103-172). Her claim is rejected by the chorus[10]; however, they do question the appropriateness of assigning responsibility for something which is fated to happen.

At this juncture, it is useful to take a brief digression to a different cultural tradition outside of the West to highlight that the problem of free will was not and is not only a concern that arises within the western philosophical tradition but a preoccupation of human beings across cultures by looking at the concept of Karma in Indian philosophy. Karma is an important feature of Indian philosophy and religion (O'Flaherty, 1980:303-304). The earliest conception of Karma appears in the Hindu scriptural text, the Upanishads, and was later further developed in the *Mahabharata* (Kaufman, 2005:16). Karma can be described as the ability of our actions to inflict outcomes in the future, i.e., a person's past actions determine their future suffering or enjoyment (O'Flaherty, 1980; Kent, 2009) . Karma is the governing force behind the notion of rebirth, which is to say that people are involved in a cycle of birth, death, and rebirth and that the conditions of their rebirth are determined by their Karma (O'Flaherty, 1980:51). Karma differs from the ancient Greek concept of fate by not being caused by any gods, the results of which are always deserved, and reflects a form of cosmic justice.

[9] *Agamemnon* is the first of the three plays within the Oresteia trilogy (Aeschylus, 1984). It chronicles the return of Agamemnon, King of Mycenae, from the Trojan War. After ten years of conflict, Troy was defeated, and the entire Greek world could claim the victory. Waiting at home for Agamemnon is his wife, Queen Clytemnestra, who has been plotting his murder. She wishes for his death to take revenge for the sacrifice of her daughter Iphigenia, to eradicate the only thing hampering her from seizing the crown, and to finally be able to marry and be with her lover Aegisthus.

[10] The chorus in Classical Greek drama was a group of actors who narrate and remark on the principal actions of a play with song, dance, and declaiming (Pavis, 1998:53).

It can be claimed that since karma determines the conditions of an individual's next life, that Karma excludes free will. However, the traditional view of Karma claims that people are rewarded in the next life for their good deeds in this life (O'Flaherty, 1980:51). This would presuppose that not all actions and choices are devoid of free will (Silvestre, 2017:36).

These early notions of free will and determinism are culturally and philosophically important. Firstly, they are pervasive. They were central features of both ancient Greek and Indian life and culture (Bargdill, 2006:206-209; O'Flaherty, 1980). The notion of Karma spread to, and influenced, many eastern civilisations and is still held to be true by many communities around the world (O'Flaherty, 1980). Remnants of the ancient Greek notion of fate can still be seen in the Christian and Islamic idea of events being the will of God. Secondly, they are intuitively appealing to us. They allow us to think about our major life events in meaningful ways. For instance, people can often be heard to say that meeting their romantic partner was "fate" or that they are "blessed" when they experience some good fortune (Bargdill, 2006:208). We also hunger for justice and instinctually react negatively to perceived unfairness; thus, the cosmic justice of Karma is appealing to us and when someone is wronged, we react by invoking the notion of Krama when we say "what goes around, comes around" (Silvestre, 2017:39).

It is apparent to see from this section that the Greek concept of fate has played a significant role in early discussions about free will and determinism, which gave rise to competing views of the nature of the world. Many of these viewpoints set the groundwork for the three traditional philosophical positions related to free will and determinism. It is also interesting to note that discussions about free will and determinism did not only take place in the western philosophical tradition but in many different cultures. These early conceptions of free will and determinism went on to influence early Christian thought on the topic, which I discuss in the next section.

2.2.2. Divine Predestination and Foreknowledge in the Christian Tradition

"… the eternal decree of God, by which he determined with himself whatever he wished to happen with regard to every man."

~ John Calvin (Calvin, 1536)

The notion of divine predestination is that the God of Christianity determines what happens to each of us and has been adopted by most major religious movements, such as the Essenes, the Jabarites and the Calvinists. The Jewish historian Josephus (37 – c. 100 CE) wrote that "[t]he sect of the Essenes affirms, that fate governs all things, and that nothing befalls men but what is according to its determination" (Schiffman, 1998:267). John Calvin encapsulates the idea of divine predestination when he wrote:

> [b]y predestination we mean the eternal decree of God, by which he determined with himself whatever he wished to happen with regard to every man. All are not created on equal terms, but some are preordained to eternal life, others to eternal damnation (Calvin, 1536:207).

Despite holding the notion that divine predestination exists these religious movements also argue that people should be held responsible and punished for their wrongful actions. Josephus noted that the Essenes condemned people with dark souls to never-ending punishments (Josèphe, 2008:156-158). Calvin wrote that "[n]one perish without deserving it. …. The reprobate suffer nothing not accordant with the most perfect justice. … There is not the least occasion for our cavilling" (Calvin, 1536:251). In the Islamic tradition there is no accord on whether predestination is true, however there is agreement that divine justice is assured (Schiffman, 1998:266).

It has been argued that the apparent conflict between predestination and moral responsibility has led the major Abrahamic creeds, such as Judaism, Christianity, and Islam, to mostly deny conceptions of godly predestination (Zagzebski, 2017; Rist, 1969). The conflict comes down to whether it could be just for God to create a person who is doomed to hell by God's own scheme. This consideration has a lengthy record

in Christianity. In the 4th Century, Pelagius rejected the notion of original sin and argued that our free choices were far more important in determining our access to heaven (Puchniak, 2008:123; Ferguson, 1977). Augustine of Hippo argued against the views of Pelagius by maintaining the doctrine of original sin and the doctrine of salvation by means of an act of God's grace (Stump & Kretzmann, 2001:40-41). Augustine did not believe that anything we did ourselves would bring salvation in and of itself. Augustine suggested that God edicts everything while also maintaining human freedom (Levering, 2011:44). Before 396 C.E., he thought predestination was centred on God's foreknowledge of whether a person would come to believe in Christ, and that God's kindness was "a reward for human assent" (Levering, 2011:48-49). In his later writings, in reply to Pelagius, Augustine argued that the sin of pride comprises in presuming that "we are the ones who choose God or that God chooses us (in his foreknowledge) because of something worthy in us", and contended that God's grace triggers a person's act of faith (Levering, 2011:47-49). Jacob Arminius also maintained the doctrine of original sin, but he opposed the notion of predestination by suggesting that God grants salvation to those who have made the correct choices. Arminius's views were in immediate dispute with those of Calvinism and the Arminian school of thought came to surpass Calvinism as the leading Protestant stance in north America (Brian, 2015:13).

Although determinism in the form of divine predestination was adopted by early thinkers of most major religious movements, many have since either abandoned or amended the doctrine to overcome its conflict with free will and specifically moral responsibility. Several Christian thinkers, such as Augustine and Boëthius, have attempted to address a similar problem which occurs with the apparent conflict between omniscience and free will.

Omniscience is a more widely accepted notion, but nonetheless also appears to conflict with free will. The fundamental question is that if God knows what choices we will make, then are we free, i.e., even if God does not determine one's choices, they would appear to be already fated (Wierenga, 2020). Augustine responded to this apparent conflict by making use of a memory analogy, where he argued that he can recall what he chose in the past, and he cannot alter this choice, however, that does not mean that the choice was not free (Stump & Kretzmann, 2001; Wierenga, 2020).

Nelson Pike (1965:27) suggests that omniscience does, in fact, threaten free will. Pike firstly assumes that God is everlasting and thus existed before the Earth was formed and will continue to exist after the Earth's destruction, and secondly, that God is always omniscient. Consequently, he concludes that God has knowledge of any decision we will make (Pike, 1965:45-46). He goes on to argue that if God knows what decision we will make then we do not have the power to choose differently and thus omniscience threatens free will.

Anicius Manlius Severinus Boëthius offered a solution to the problem of omniscience by arguing that God is not everlasting, but rather eternal[11] (Boethius, 2008; Davis, 1979; Pike, 1965). The argument is that omniscience is only a problem if God's knowledge of our decisions constitutes foreknowledge (Pike, 1965). That is to say, that omniscience is only a problem if God knows what one will do before one does it, and not if God knows what one does as one does it. Being eternal would mean that God exists outside of time, and thus we should believe that God knows what we will do as we do it rather than from before the Earth was formed (Boethius, 2008; Davis, 1979; Pike, 1965).

In this section, I have shown that the various points of view related to the Greek notion of fate and the Christian ideas of divine predestination and omniscience have revealed that since the early days of western philosophy the free will debate has been developing and evolving into many different competing schools of thought. These schools of thought have formed the foundation of the modern era's major philosophical positions, which I shall discuss in the following sections. At the same time, this section has also provided a glimpse into the evolution of the dialectical impasse which shall be investigated in coming chapters.

[11] Theologically speaking, "eternal" refers to God not being within any time limit, being **outside of time,** and existing without a beginning or an end. This is like the idea of the spirit. On the other hand, "everlasting" is used to refer to either the life which did not always exist but was given to God and it was forever, running **within time**, which has a beginning but does not have an end (Stump & Kretzmann, 1981:429).

2.3. Causal Determinism

"We ought…to regard the present state of the universe as the effect of its anterior state and as the cause of the one…to follow."

~ Pierre-Simon Laplace (Laplace, 1951:3)

In this section, I briefly unpack some of the early developments of causal determinism by looking at the work of the Greek atomists, the Stoic philosophers, the 9th Century developments, and Isaac Newton's theory of physics. The ideas unpacked here are the forerunners of the concepts and research which shall be dealt with throughout the remaining chapters.

A group of ancient Greek natural philosophers, called the atomists, developed the notion that the universe is composed of physical atoms (Berryman, 2016). This group advanced the earliest known form of determinism (De Ley, 1968:620). The atomists rejected the existence of the gods and instead believed that the physical world was composed of atoms and the void (Berryman, 2016). Two of the earliest and best-known atomists were the philosophers Leucippus (5th – 4Th Century BCE) and Democritus (c. 460 – c. 370 BCE) (Taylor, 1999). In the remnants of a work called *On the Mind*, Leucippus argued that "Nothing happens in vain, but everything from reason and by necessity" (Taylor, 1999:3). The atomists rejected the widely held Greek view that events and actions were the result of the fates or the will of the gods. Instead, they argued that the occurrence of events and actions could be explained in natural terms (Berryman, 2016). Thus, they believed that everything must have a cause and that nothing could exist without a cause. The atomists suggested that the movement of atoms was the sole result of the atoms' properties and their previous movements and that no other force could affect their movements (Berryman, 2016).

A different account of determinism was offered by the Greek Stoic philosophers. The stoic school of thought was developed by Zeno of Citium (c. 334 – c. 262 BCE) and became renowned in the 4th century BCE (Baltzly, 2019; Bobzien, 2005:509). The Stoics argued that life and all its difficulties should be lead and faced with composure (Baltzly, 2019). They viewed life as being wholly determined. They agreed with the atomist notion that all events have a cause, but they claimed that the cause of these

events must be rational (Algra et al., 2002). By this they meant that the cause of events must have a deeper meaning and that there must be a reason as to why the event occurs. They attributed this deeper meaning and reason to the will of the gods. Unlike the Atomists, the Stoics believed in the gods. This form of determinism, which sees events as part of a cosmic order which acts in the best interest of all, allowed the Stoics to justify their equanimity towards life (Bobzien, 1998, 2005). However, this fated outlook results in the concern that if everything is fated, whether a person works hard or not is irrelevant and they could simply wait and see what has been fated for them. The Stoic philosopher Chrysippus of Soli (c. 279 – c. 206 BCE) attempted to resolve this concern by suggesting that events were co-fated. That is to say, certain events will not occur without an earlier event having come to pass. For example, food poisoning is co-fated with eating expired food (Algra et al., 2002:534; Bobzien, 1998:181).

In the 8th century, physical determinism became increasingly popular (Scardigli, Hooft, Severino & Coda, 2019:5-7). Physical determinism holds that every physical event that occurs is the result of prior circumstances, that is, the position and movement of objects and the laws of the physical world (Watson, 1982:127). The popularity of physical determinism continued to grow and culminated in the work of Sir Isaac Newton. Newton's theory of physics had great predictive potential (Kane, 2005:8-9, 43). Many thinkers, such as Immanuel Kant (1890), believed that all the basic physical laws were taken to be complete and that physical events were always the result of other physical events, all of which always follow the laws of physics (Kane, 2005:43).[12] In this way, modern determinists are more like the ancient Greek atomists in that they do not appeal to God or fate to explain the occurrence of events. The French philosopher Pierre-Simon Laplace (1749 – 1827) (1951:3) described the notion of physical determinism when he suggested that "[w]e ought to regard the present state of the universe as the effect of its anterior state and as the cause of the one…to follow." Laplace noted that this had immense consequences for the predictability of future events (Laplace, 1951). If this account of determinism is to be believed, then two

[12] Kant situated determinism in the empirical realm, and freedom in the world of reason. Thus, he is a determinist of a sort, opposed to the custom of compatibilism, not really in the incompatibilist tradition, but tries to make his determinism and freedom-as-origination compatible (Kant, 1890, 1956).

autonomous and remote worlds that are at one instant in precisely identical states will be in exactly the same state at every instant in the future.

As mentioned above, an examination of determinism is pertinent to any discussion about free will, human action and behaviour since determinism appears to jeopardise the ability to freely act or choose our behaviour. If everything happens for a reason and the present is determined by the past and the laws of nature, then can a person be said to have free will, i.e., can a person meaningfully assert that they freely decided to act or behave in a certain way, if their actions are determined (Hoefer, 2016)? More importantly, can others hold a person responsible for their behaviour if it is determined (Hoefer, 2016)? Some philosophers, such as David Hume (2000:99), have argued that determinism is necessary for free will (Hume, 2000:99; Russell, 2020). The investigation of empirical research and physical theories will uncover whether a more comprehensive understanding of determinism as imagined by physical theories can help to shed any light on the free will debate and the philosophical impasses which shall be discussed later.

The work of 20th-century physicists has made clear important links between time and determinism (Ismael, 2016:231; Hoefer, 2002). As noted previously, free will theories are related to time in that they argue that past events determine present and future events. What has been pointed out by physicists is that the reverse can also be true, present or future events can determine past events.[13] This contribution is one way in which physical determinism and empirical study has allowed contemporary philosophers to approach the free will debate from different perspectives which may illuminate the links between determinism, free will, and human behaviour (Ismael, 2016:231; Hoefer, 2002).

Having given a very brief overview of the development of determinism, by looking at the ideas of the Greek atomist, the Stoic philosophers, 8th Century developments, Isaac Newton's theory of physical, and Pierre-Simon Laplace's notions, I now turn my attention to the development of determinism's antithesis, indeterminism.

[13] Considering quantum physics, the differentiation between cause and effect is not made at the most basic level and so time-symmetric systems can be considered as causal or retrocausal (Faye, 2021).

2.4. Classical Indeterminism

"We have this power in actions, that we can choose the opposite."
~ Alexander of Aphrodisias (Alexander of Aphrodisias, 1983; Sellars, 2012)

Having framed the basic debate and described the early development of the physical notions of free will and determinism, I now move on to describing the foundations of the modern theoretical free will landscape, which will be discussed in greater detail in Chapter Three. The first classical theoretical grouping of thoughts I will describe is indeterminism. The initial form of libertarianism that developed held that people have a free will that is incompatible with determinism (Nichols, 2015:5). Libertarianism broadly claims that free will necessitates that determinism is false and that we have free will (Watson, 1982:8-9; Nichols, 2015:35).

The Epicureans were some of the earliest philosophers to contradict the doctrine of determinism. Perhaps one of the best-known Epicurean philosophers, Lucretius (c. 99 - c. 55 BCE) , argued for indeterminism in his poem, *On the Nature of Things* (Lucretius, 2001). Lucretius argued that since determinism disqualifies free will, it must be false (Purinton, 1999; Russell, 2000:236; Sedley, 2018). He also suggests that it is an individual's own will that creates movement. Epicurus (341 - 270 BCE) suggested a similar idea when he argued that choices rely solely on us. Lucretius claimed that our free will is possible because atoms do not all do the same thing at the same time and that they sometimes deviate (Sedley, 2018; Russell, 2000:238; Purinton, 1999). He argued that the mind possesses no necessity in what it does and that this was due to the tiny swerve of elements that occurs at no static speed and at no unchanging time. This conception raises an issue that is a recurring theme in the free will debate: If free will is the result of deviating atoms, then it is random and does not come from an individual's temperament (Russell, 2000:229).

The 2nd century CE Greek philosopher, Alexander of Aphrodisias categorically rejected determinism (Alexander, 1983: xxii-xxv; Frede, 2017). He suggested that we are in possession of the power in our actions and that we can choose to act differently (Sellars, 2012:935-936). He so strongly believed in the notion that people have the power to choose the opposite that he argued that people could even act in ways that

are contrary to their character. To support his argument, he recalled a tale in which Socrates said that although his character pulled him in one direction, he was able to overcome his character, through the teaching of philosophy, and move in the opposite direction (Alexander, 1983: xxii-xxv; Frede, 2017).

Alexander bases his rejection of determinism upon the features of deliberation. He argued that if determinism is true, then deliberation is useless. He explained that it would be fruitless and counterintuitive to deliberate a matter which is already determined (Frede, 2017). This echoes the Lazy Argument[14] which holds that if determinism is true, then it is meaningless to make any effort, including the effort to deliberate (Bobzien, 1998:180). The argument was well captured by Origen of Alexandria (c. 184 – c. 253):

> If it is fated that you will recover from this illness, then, regardless of whether you consult a doctor or you do not consult [a doctor] you will recover. But also: if it is fated that you won't recover from this illness, then, regardless of whether you consult a doctor or you do not consult [a doctor] you won't recover. But either it is fated that you will recover from this illness, or it is fated that you won't recover. Therefore, it is futile to consult a doctor (Bobzien, 1998:182).

Alexander argued that we deliberate because we assume that we genuinely have options that we can freely choose from. He also offers an alternative argument: we feel regret only because we could have acted otherwise (Alexander, 1983; Frede, 2017).

The movement against determinism gained greater momentum during the European medieval period. Medieval philosophers made use of the liberty of indifference to build a new case for indeterminism. To possess liberty of indifference means to be able, taking things exactly as they are, to decide or initiate another action which is different from the one you really selected (Honderich, 2005:312,892). If determinism is true, we do not possess liberty of indifference since the selections themselves are determined.

[14] The earliest surviving text that contains a full description of the Lazy Argument is Cicero's *On Fate* 28-9. (Cicero, 1991). The general conception of the Lazy Argument can also be found in Aristotle's *De Interpretatione* (Whitaker, 1992).

The Buridan's ass thought experiment was used by Peter Olivi and John Duns Scotus to support the liberty of indifference libertarian idea of free will. The thought experiment describes a starving donkey which is equally far from to equally appealing piles of hay. The donkey starves to death since it has no basis to choose either pile of hay (Kane, 2005:37; Kaye, 2004:21).

Olivi and Duns Scotus argued that we would not be unable to choose if presented with two equally appealing apples. They argued that free will is necessary to break the deadlock of indecision and that such free will is the liberty of indifference (Nichols, 2015:41). Although they believed that humans possessed this type of free will, they considered animals as lacking it. They suggested that the donkey does not carefully consider the various options and decide to act in the same way that humans do (Kaye, 2004:23-24; Nichols, 2015:41). They claimed that if the donkey does manage to move, then it has done so by a means which is separate from that used by humans.

There have been several arguments against this line of reasoning. It has been argued that very few if any free choices correspond to the one made in the thought experiment and that even if a choice did, it would be insignificant since the outcome of either choice is the same (Kaye, 2004:24-25; Nichols, 2015:41-42). It has also been pointed out that the decision could be made by means of a simple coin toss and that a person's will is not required. David Hume noted that the liberty of indifference is nonsensical since it is equivalent to chance or arbitrariness (Russell, 2020). Determinists have countered by rejecting the idea that a situation where the choices are equally balanced exists. They argue that there is always some feature, even an extremely small one, which would decide the outcome (Kaye, 2004:24). It has also been suggested that even if the two options did appear identical there could still be deterministic features on the micro level, e.g., genes, neurons etc., which decide the outcome (Nichols, 2015:39). A deeper investigation of this idea will be conducted in Chapter Four on whether experimental and empirical findings can assist to better understand free will debate and potentially help to resolve the dialectical impasse.

2.5. Classical Compatibilism

In the previous section, I described the classical indeterminist approach to free will, which stands in contrast to the classical compatibilist approach. In this section I examine the classical compatibilists approach to free will by investigating the ideas of Chrysippus, David Hume, and John Stuart Mill. The section concludes with a discussion of Harry Frankfurt and his contributions to the free will debate.

Compatibilism is a popular approach to the free will problem. It is the idea that free will and determinism are compatible (Salles, 2001). The first known proponent of this view is the Stoic philosopher Chrysippus (c. 279 – c. 206 BCE) (Bobzien, 1998, 2002; Salles, 2005). He used the example of a cylindrical stone being thrown down a hill to illustrate how a person can be held responsible for their actions in a determined world (Bobzien, 1998, 2002; Salles, 2005). He imagined a cylindrical stone thrown down a hill will initially roll because it was thrown but will continue to roll because of its nature. In the same way a person's actions are determined, however their nature influences action or its outcome. He argued that the influence of our nature is devoid of indeterminist features and that a person's nature directs the outcome (Bobzien, 1998, 2002; Salles, 2005). For example, imagine that person A and person B are prompted to action by their perception of the same situation. Despite being promoted by the same event, their responses are different (Bobzien, 1998, 2002; Salles, 2005). Chrysippus would argue that their difference in nature caused the difference in response, i.e., a person with a bad nature will respond negatively, while a person with a good nature will respond in a good way.

In the 17th and 18th centuries, classical compatibilism developed as a new form of compatibilism. This new wave of development was started by Thomas Hobbes (1656) and further expanded by David Hume (1748) and John Stuart Mill (1859). Broadly speaking, this new form of compatibilism developed two stages: -

- Compatibilists argue that instances used to illustrate that free will and determinism are incompatible are mistaken;
- Compatibilists offer conceptions of free will that align with our thoughts on free will without conflicting with determinism (Warfield, 2005:613-614; Kane, 2011).

There are several reasons why compatibilists claim that instances of free will and determinism being incompatible are mistaken (Warfield, 2005:613-614; Kane, 2011; Levy, 2018). A major argument points out that libertarians hold that a person's action is not free if it is determined, but if the action is not determined then it is not determined by the person either (Warfield, 2005:614-615; Kane, 2011; Levy, 2018). This, compatibilists argue, is nonsensical and thus poses a major threat to libertarianism. David Hume made use of a different approach by arguing that the disagreement is a verbal dispute. He suggested that everyone accepts both determinism and free will (Hume, 1748:133; Beebee & Mele, 2002:208-209; Russell, 2020). Hume argued that the fact that we hold people responsible for their actions indicates that we believe in free will, and that everyone knows that the same motives, such as jealousy and greed, generate the same outcomes which indicate that everyone believes in determinism (Hume, 1748:133; Beebee & Mele, 2002; Russell, 2020). Hume put forward a stronger argument when he suggested that the incompatibilist argument is the wrong way around. He argued that we would not hold a person responsible for their actions if their actions were not caused by their nature/character (Hume, 1748:155,158; Beebee & Mele, 2002; Russell, 2020). For example, we hold someone that has premeditatively killed a person as being more culpable for the killing than we do for someone who has killed because of temporary insanity. If it was discovered that a random neurological event or injury has caused someone's actions, then we would most likely hold that they are not responsible for their actions.

The classical compatibilists also argued that as soon as a person understands the true nature of free will then it becomes clear that it does not oppose determinism (Timpe, Griffith & Levy, 2017:41, 47; McKenna & Coates, 2021). They argued that we are free to make choices and that these choices are compatible with determinism. Hobbes conceived of these choices as weights on a scale, where the weights are influenced by considerations of convenience (Hobbes, 1656; Russell, 1988:313-314). For instance, imagine that you want to go to the movies, but you also want to go to a show. The movie is closer to you, but tonight is the last night to see the show. You will weigh these considerations against each other, and when the scale tips, then Hobbes considered that a choice has been made (Russell, 1988:313-314).

Classical compatibilists argued that free will had nothing to do with indeterminism (Timpe et al., 2017). They suggested that the absence of external restrictions upon a person's actions is more important to the idea of free will, i.e., a person has free will when they could have acted otherwise if they had wanted to (Timpe et al., 2017). This view is considered consistent with determinism since the classical determinists did not care whether some external factor caused a person's actions, so long as the person was not restricted from behaving in a certain way. Hume argued that everyone who is not in prison or chains has this kind of freedom (Russell, 2020; Beebee & Mele, 2002).

There are a few objections that classical compatibilists face. Firstly, they do not adequately differentiate between humans and other animals (Machina, 1994; Timpe et al., 2017:457). For example, dogs often act according to their desires without being restrained, however, many would argue that dogs cannot be held morally responsible (Machina, 1994; Timpe et al., 2017:457). Secondly, the classical compatibilist argument would suggest that an action is free when it really is not. If free will is the performing of an action when a person could have done otherwise if they had wanted, then a person who chooses to remain in a room, not being aware that it is locked from the outside, appears to be acting freely (Machina, 1994:213; Timpe et al., 2017). Lastly, the classical compatibilist position does not explain why free will is threatened in cases of compulsion. For instance, classical compatibilism does not account for why a person's free will should be threatened when they do what they want to do even if they are regarded as having a diminished freedom or responsibility.

The prominent defender of compatibilism, Harry Frankfurt, attempted to address some of the shortcomings of compatibilism. Frankfurt's conceptions have had a significant impact on the contemporary free will debate, so it would be beneficial to discuss the outline of his theories in more detail.

2.5.1. Harry Frankfurt's Account

A significant shortcoming of classical compatibilist views is that they did not account for how humans are morally distinct from other animals. Harry Frankfurt began to address this shortcoming when he argued that our ability to have second-order wishes about desires is what sets us apart from other mammals (Frankfurt, 1971:5; Widerker,

1995). Frankfurt argued that humans are capable of complex mental states called "second-order" states where one could have desires about desires (Frankfurt, 1969; Widerker, 1995; Fischer et al., 2007:56-61). He suggested that other mammals have first-order desires such as the desire to eat, but nothing as complicated as second-order thoughts. He argued that our second-order desires can take several forms, namely:

- We could desire that we are rid of a desire that we do have, e.g., we could desire not to desire ice cream.
- We could desire to obtain a desire that we do not have, e.g., we could desire to acquire the desire to exercise.
- We could also desire that one of two of our competing desires should override the other, e.g., we could desire that our desire to exercise overrides our desire for ice cream (Frankfurt, 1971:6-7; Fischer et al., 2007:56-61).

Frankfurt suggested that our ability to have desires about desires is what allows us to assess ourselves contemplatively, i.e., this ability allows a person to reflectively evaluate themselves.

This account of second-order desires has interesting consequences for the problem of free will. Frankfurt argued that one has free will only if one's first-order desire is successful (Frankfurt, 1969, 1971:7-8; Fischer et al., 2007:56-61). This conception is clearer when we consider a scenario with two types of addicts. Both addicts desire to take a drug. Addict A does not believe that the drug is harming him, and he hopes that he will continue to desire to take the drug. Addict B, on the other hand, is conflicted; he desires to take the drug, but he also desires to quit taking the drug. Addict B reflects that he sincerely hopes that his desire to quit taking the drug should override his desire to keep taking it, i.e., he has a second-order desire supporting his desire to quit (Fischer et al., 2007:56-61). For example, if addict A's desire for the drug succeeds, then he can be said to enjoy free will. Addict B wants his desire to quit to succeed. If his desire to quit is successful, then he enjoys free will. However, if his desire for the drug succeeds, he does not have free will since his actions are directed by a desire that he does not want (Fischer et al., 2007:56-61). This type of conceptualisation has been described as a Real Self theory in the sense that the reluctant addict recognises himself with his desire to stop. (Frankfurt, 1969; Wolf, 1994 & 2015). Frankfurt (1969)

noted that identifying with an action and the motivations for the action are important aspects of moral responsibility.

Classical compatibilism conceives of freedom as the ability to do as one wishes. Frankfurt considers this conception of freedom to be freedom of action and not freedom of will (Frankfurt, 1969:835; Widerker, 1995:249-253). He focused on what he considered freedom of will, where a person's desire or will is hindered. Despite that, Frankfurt's account is compatible with determinism (Widerker, 1995:249-253). He argued that acting on a desire that one identifies with is what is important for free will. One's reason for identifying with a desire might well be determined, for example the desire to stop taking a drug, but that is not relevant to whether the desire one identifies with is successful (Frankfurt, 1969:835; Widerker, 1995:249-253). This account also addresses some of the problems associated with classical compatibilism.

- Although animals have freedom of action, they cannot reflect upon their desires and choose which desire they should identify with. Therefore, animals lack freedom of will.
- As mentioned earlier, a hurdle for classical compatibilism is the locked-door problem. Classical compatibilism held that a person is free when they can choose to act differently. Frankfurt argues that a person in a locked room may not be free to leave the room, but they are free to have the desire to leave the room.
- As discussed, there is a conflict between classical compatibilism and compulsive behaviour, in that people with compulsions appear to have a reduced freedom to act and thus a lessened responsibility. Frankfurt's account addresses this by arguing that compulsions affect a person's freedom of will since they do not have the desire that they want (Frankfurt, 1969:835; Widerker, 1995).

Despite the clear improvements which Frankfurt's account brings, there are still important problems which it needs to address. Frankfurt's account argues that we only have freedom of will when we are able to have the will that we want. This implies that when we behave according to desires which we do not want, then we are not actually acting freely (Frankfurt, 1969; Widerker, 1995). Many morally questionable actions,

such as infidelity, appear to be of this kind. Frankfurt's account thus implies that we are not free in such situations (Frankfurt, 1969; Widerker, 1995). Susan Wolf (1994) has raised a real problem associated with the Real Self account. She has noted that people can sometime be manipulated, e.g., through brainwashing, to have the second-order desires that they possess (Wolf, 1994 & 2015). Such people are intuitively believed to not be acting freely, however, Frankfurt's account would suggest that they do have free will.

2.6. Conclusion

I began this chapter by examining the basic free will debate by describing the concepts of free will and determinism and relating them to the three traditional philosophical positions by means of descriptive questions, substantive questions, and prescriptive questions. With the basic debate framed and connected to the three traditional philosophical positions I went on to describe the development of the concepts of free will and determinism. The development of these concepts is what gave rise to the three traditional philosophical positions. I then analysed causal determinism, classical indeterminist, and classical compatibilist positions as a historical foundation for the schools of thought examined in the next chapter. The aim is to trace how the contemporary concepts discussed in later chapters developed and how they are linked with each other.

Having framed the basic debate and described the historical development of the three traditional philosophical positions, a framework has been established from which I can further unpack, in the next chapter, how the three traditional philosophical positions have branched off into numerous theories and counter-theories in the contemporary debate. The next chapter is therefore devoted to unpacking how the theoretical landscape of free will and determinism has reached a dialectical impasse.

Chapter Three:
The Theoretical Landscape: A Dialectical Impasse

Given the extensive historical development of the free will debate, as explained in the previous chapter, numerous theoretical schools of thought have evolved. Each new school of thought produces new arguments and perspectives which give rise to counter arguments and counter schools of thought. This has continued to the point where the theoretical discourse appears to be at a constant impasse which is balancing upon an intricate network of interlocking arguments and their counters. This impasse and tangled web of arguments are in dire need of untangling.

The purpose of this chapter is not to provide a detailed look at the various free will schools of thought. Such an undertaking is beyond the scope of this dissertation. My focus in this chapter is on illustrating and establishing that there is a dialectical impasse as described. Establishing this dialectical impasse will allow me to move on to the main objective of this dissertation, which is to investigate whether recent developments in the fields of moral psychology and experimental philosophy can contribute to breaking the dialectical impasse and untangling the web of arguments.

Figure 1 provides a broad overview of the complexity of the theoretical landscape and the many arguments and counter arguments which exist.

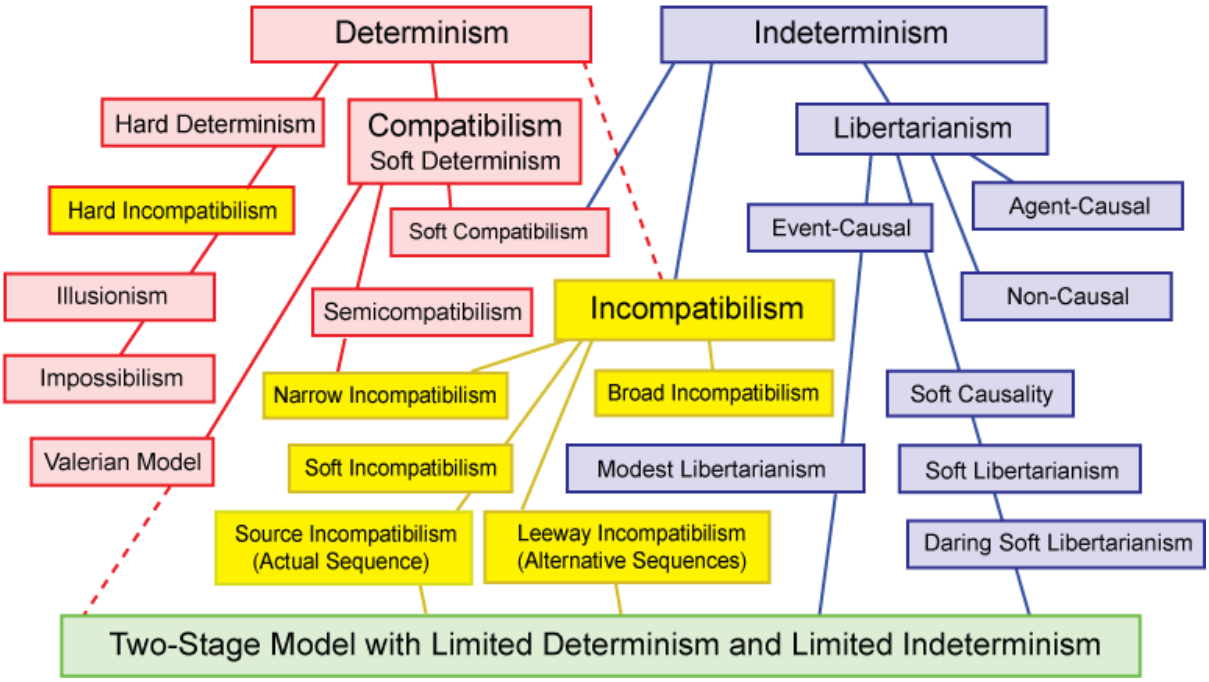

Figure 1: Diagrammatic representation of the theoretical impasse between the various free will schools of thought (Doyle, 2011:63).

The landscape is roughly divided into two conflicting positions, namely, determinism and indeterminism (Doyle, 2011:64). Compatibilism flows from determinism and its antithesis incompatibilism flows from both determinism and indeterminism. From indeterminism comes libertarianism which is further divided into the schools of non-causal, agent-causal, and event-causal (Doyle, 2011:66). Discussing all the schools of thought represented above falls outside of the scope of this dissertation. Consequently, in this chapter, I will be focusing on those elements of libertarianism, compatibilism, and incompatibilism which are sufficient for me to illustrate and establish the dialectical impasse which I have mentioned.

For the purposes of establishing that a dialectical impasse exists which calls for new insight and untangling I will focus on the broad exchanges between compatibilism, incompatibilism, and libertarianism. However, it would be beneficial to provide some context by briefly referring to a few of the contemporary schools of thought which have contributed to the dialectical impasse. Broad incompatibilists think both free will and moral responsibility are irreconcilable with determinism (Clarke, 2003:20). Narrow incompatibilists believe free will is not compatible, but moral responsibility is consistent with determinism (Clarke, 2003: xiv,11). Semicompatibilists are narrow compatibilists

who are sceptical about free will and determinism but argue that moral responsibility is consistent with determinism (Clarke, 2003:10). Hard incompatibilists think both free will and moral responsibility are not compatible with determinism (Pereboom, 2001). Illusionists are incompatibilists who argue that free will is an illusion (Kane, 2011:31). Soft incompatibilists think both free will and moral responsibility are irreconcilable with strict determinism, but both are consistent with an adequate determinism (Watson, 1999). Soft causalists are event-causalists who acknowledge causality but concede that certain unpredictable incidents are *causa sui*, i.e., something that is produced within itself, and begin fresh causal courses (Kane, 2011:25).

Now that I have provided the board framework of the philosophical landscape I will turn my attention to those elements of libertarianism, compatibilism, and incompatibilism which help to demonstrate the existence of a dialectical impasse in need of new insight. I begin with the libertarian account of free will.

3.1. Libertarianism

As explained in the previous chapter, to possess free will is often seen as the ability to act freely. When a person makes use of their free will, it is up to them whether they take one action or another. There exist numerous alternatives for a person to select and they choose which to take. When someone does choose from the numerous alternatives, they are deemed to be the ultimate source of their action (Kane, 2005:2; Fischer et al., 2007:5-7).

Libertarians believe that we possess this type of free will only in a non-deterministic world (Capes, Capes & Capes, 2020). The libertarian view can be conceived as 1) believing that free will and determinism are incompatible, 2) that free will exists, and thus 3) that determinism, in terms of human actions, is false (Kane, 2005:32-33).

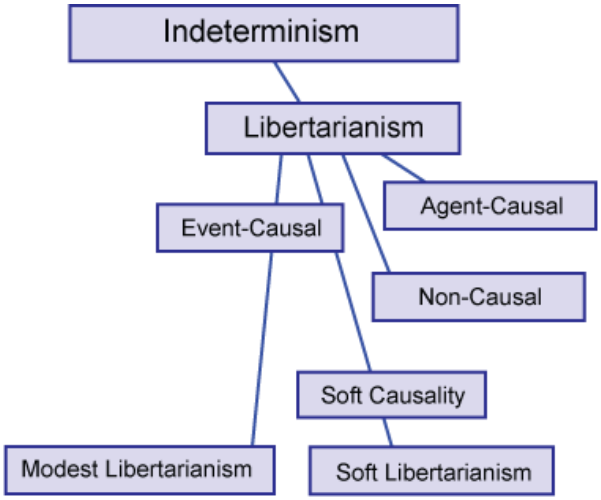

Figure 2: Diagrammatic representation of the various indeterminism free will schools of thought (Doyle, 2011:19).

As mentioned above and represented in Figure 2, libertarianism has over time, and in response to challenges from critics, differentiated into three distinct schools of thought, namely: event-causal, agent-causal, and non-causal libertarianism (Doyle, 2011:66). Each of which attempts to provide counter arguments to some of the threats which libertarianism faces.

Event-causal libertarianism argues that people's actions are the result of previous events occurring at a time, for example, a person having a want or conviction at some prior time. Event-causal libertarians also argue that in order to possess the kind of free will needed for moral responsibility a certain type of indeterminacy is required (Ekstrom, 2000:81-83; Balaguer, 2010).

Agent-causal libertarianism on the other hand considers people as substances (agent-causes) that have the power to cause actions without being causally determined to be necessary for the kind of free will which is required for moral responsibility (Chisholm, 1967). There are two important claims which agent-causal libertarianism makes.

1. The first is that a person is fundamentally an enduring substance (agent-causes) and that causation by a person is thus causation by this substance. Because a substance is not the type of thing that can itself be an effect, on agent-causal accounts a person is in a stringent and actual meaning an originator of their free decisions, which are an uncaused producer of them (Nelkin, 2011:81-82).

2. The second claim is that when a person is said to have acted freely, they are not causally determined by elements outside of their control to act. The combination of indeterminism and origination is meant to illustrate how, when a person acts freely, a multitude of options become available and the person determines which to undertake and thus is possessed of the freedom needed for moral responsibility (Nelkin, 2011:81-82).

Non-causal libertarianism has taken on a few different forms. Henri Bergson (1910:76-77) conceives of events occurring in time, but that the temporal elements of cognisant agency did not settle into the types of degrees necessary for the application of causal laws.[15] Bergson employs complex metaphorical notions of agency which could not be related to strictly scientific explanations of free will (Bergson, 1910;76-77 Kaldis, 2013:372). Detailing the entirety of Bergson's theories goes beyond the aim of this dissertation. The important point to note is the extraordinarily complicated and difficult to understand lengths to which Bergson and others have gone to formulate working libertarian positions.

3.1.1. Libertarianism Under Threat

It is clear from the previous chapter that the libertarian conception of free will has been under attack for many centuries, from thinkers such as Chrysippus (c. 279 – c. 206 BCE), David Hume, and John Stuart Mill. Attacks from modern thinkers have come in two general parts (Clarke, 2003:31; Capes et al., 2020). The first wave of attack, led by thinkers such as Daniel Dennett (2017), argues that the libertarian conception of free will is unnecessary, while the second attack argues that it is impossible or unintelligible (Clarke, 2003:31; Capes et al., 2020).

The first wave of attack comes from the compatibilists, such as Dennett (2017:307-308), who argue that determinism does not really conflict with free will and that we can

[15] In *Time and Free Will*, Bergson (1910, 76-77, 122) has been seen to attack Kant, for whom freedom fit in to a domain outside of space and time. Bergson reckons that Kant has muddled space and time in a combination, which has caused us to conceive of human action as determined by natural causality. Bergson response is twofold. On the one hand, to describe consciousness and thus freedom, Bergson suggests that we distinguish between time and space. On the other hand, because of the separation, he describes the current information of consciousness as being temporal, in other words, as the duration. In the duration, there is no association of events; therefore, there is no systematic causality. It is in the duration that we can describe the understanding of freedom.

have all the freedoms that are worth wanting. The argument is that all the freedoms which we enjoy, recognise, and want in our everyday lives, such as freedom from coercion, from physical restriction, from political oppression etc. are in concert with determinism (Clarke, 2003:33-32). That is to say that, even if the world were to be entirely deterministic there would be a difference between people who are free from the restrictions on their freedom of action and those who are not, and that people would inevitably still desire the former over the latter. For that reason, compatibilists view libertarian questions about the truth of determinism to be unnecessary to the question of whether people possess the forms of free will that are worth wanting (Clarke, 2003:33-32; Dennett, 2017). This compatibilist line of reasoning can be traced back to the ancient Greek stoics and became popular with modern compatibilists, such as Thomas Hobbes (1656), John Locke (1753), John Stuart Mill (1859), and David Hume (1777) as a means to reconciling people's everyday experiences, folk conceptions, of free will with the apparently deterministic findings of modern science (Clarke, 2003:33-32; Fischer et al., 2007:8). This acknowledgement of folk conceptions of morality and the findings of modern science shows a persistent need and call for new insight to the free will debate.

The second wave of attack pushes the threat to libertarian free will further by arguing that it is impossible or unintelligible (Pereboom, 2001:38; Fischer et al., 2007:8). Many libertarian thinkers have attempted to bolster the notion of ultimate freedom by employing obscure and evermore mysterious forms of agency and causation, such as immaterial egos and unmoved movers (Fischer et al., 2007). These invocations are what have led many to criticise the libertarian view as being unintelligible. Immanuel Kant (1890), a prominent libertarian, argued that the libertarian conception of free will is essential to understanding genuine responsibility, however he noted that the libertarian conception cannot be entirely understood from a theoretical or scientific approach (Kant 1890:447; Wolt, 2018:183). I argue that the employment of evermore obscure forms of agency which become more and more detached from modern scientific explanations helps to further the tangled web of the free will debate and do not aid in resolving the dialectical impasse. I echo the cry that many approaches to the free will debate are unintelligible or so far removed from the laws of nature that they are impossible.

To address these threats modern libertarians are required to show 1) that free will is in fact incompatible with determinism, 2) that a libertarian conception of free will necessitating indeterminism can be intelligible, and 3) that it can be reconciled with modern scientific findings. This is by no means a small task and has prompted the creation of some very complex conceptions such a Bergson's (2014) non-causal temporal elements mentioned above. In what follows, I will look at some of the concepts, such as the consequence argument, ultimate responsibility, and unusual types of agency, which libertarians employ to address their critics.

3.1.2. The Consequence Argument

A popular argument which has been developed to address the critics of libertarian free will is the Consequence Argument. Peter van Inwagen (1983:56), an advocate of the Consequence Argument, summarised the argument by saying that if determinism is true, then our actions are the result of the laws of nature and past events. However, it is not up to us what happened in the past and nor is it up to us what the laws of nature are. Therefore, the consequences of our actions are not up to us (Van Inwagen, 1983:56; Huemer, 2000). This argument can be more clearly illustrated as follows:

P1. There is nothing we can now do to change the past.
P2. There is nothing we can now do to change the laws of nature.
P3. There is nothing we can do to change the past and the laws of nature.
P4. If determinism is true, then our present actions are consequences of the laws of nature and the past.
C. Therefore, there is nothing we can do to change the fact that our present actions take place, i.e., we cannot do otherwise than we do (Ekstrom, 1998:335).

From this it can be inferred that if determinism is true, then no one can do otherwise. Further, if the ability to do otherwise is required for free will, then no one has free will (Ekstrom, 1998:335).

Proponents of the Consequence Argument take it for granted that P1 and P2 are true and thus that the conjunction of these two premises, P3, is also true (McKenna & Pereboom, 2016:79-85). Premise 4 merely describes the implications of determinism.

The conclusion (C) has garnered the greatest amount of criticism (McKenna & Pereboom, 2016:79-85). C follows from P3 and P4 in the following way: if (3) there is nothing we can do to change the laws of nature and our past and (4) our present actions are necessary consequences of the past and laws of nature, then (5) there is nothing we can now do to change the fact that our present actions take place (McKenna & Pereboom, 2016:79-85). This line of reasoning is an example of the Transfer of Powerlessness Principle which says that if there is nothing anyone can do to change X, and if Y is a necessary consequence of X, then there is nothing anyone can do to change Y (McKenna, 2001).

Although the Transfer of Powerlessness Principle appears intuitively true, it has been challenged by opponents to the Consequence Argument (McKenna, 2001:38-40). These opponents tend to question the interpretation of the use of the word “can” when the principle talks about there being nothing that a person “can” do to change Y. The argument is that the word “can” invokes notions of a person’s power (Carlson, 2000:280-281). Compatibilists tend to challenge the Consequence Argument by interpreting the phrase “you can do something” as “if you wanted or tried to do something, then you would” (Carlson, 2000:280-281). With such an interpretation the Consequence Argument would clearly fail. The Transfer of Powerlessness Principle would then hold that if we now wanted to or tried to change the past or the laws of nature, then we could change them (Carlson, 2000:280-281). This is untenable since no one can change the past or the laws of nature even if they so desired.

Why should this interpretation be accepted? It is at this point that one of many dialectical impasses is reached. The proponents of the Consequence Argument are holding that its opponents are begging the question by interpreting “can” in a manner that aligns with a compatibilists view of determinism, while opponents of the Consequence Argument hold that its proponents are begging the question when they view “can” in a way that conforms to a libertarian worldview rather than a compatibilist one (Fischer & Pendergraft, 2013:578-579). This sort of dialectical exchange has its place, but I suggest that it does not help move the free will problem any closer to the reality of ordinary folk conceptions of morality or the reality of the physical world in which we live.

3.1.3. Ultimate Responsibility

The dialectical impasse which has arisen around the interpretation of the words “can” and “power” has resulted in the development of many conflicting arguments (Fischer et al., 2007:13-14). Some libertarian proponents, such as Robert Kane (2005), argue that narrowing the debate to the Consequence Argument and alternative possibilities is not sufficient to show that free will and determinism are incompatible. These libertarians turn to the notion of Ultimate Responsibility as a further support for a libertarian worldview (Fischer et al., 2007:13-14).

Libertarians often cite two reasons why determinism is incompatible with free will. The first is the need for Alternative Possibilities (AP) or having open alternatives to choose from and the second is Ultimate Responsibility (UR) (Kane, 2005:32-33). The idea behind UR argues that for a person to be held ultimately responsible for an action, they must be responsible for what is a sufficient cause for the action taking place. That is to say that a person can only be ultimately responsible for an action if that action can be explained by another action or the character and motive of the person which were freely performed in the past (Kane, 1998:60-61). Ultimate responsibility for an action requires that a person is at least in part responsible for their current character by having previously freely acted in a way which caused them to have their current character. This does not mean that a person needs to be responsible for every single action, but it does require that a person could have done otherwise with regards to some of their past actions which have shaped their current characters (Kane, 1998:60-61).

The well-known compatibilist Daniel Dennett (1984) used an example about Martin Luther to defend the compatibilist view of free will by suggesting that alternative possibilities are not required for a person to have free will or be held morally responsible. He argued that when Martin Luther said, “Here I stand, I can do no other”, after starting the Protestant Reformation, he was claiming the full responsibility for employing his own free will rather than forswearing his responsibility (Dennett, 1984:555-556). This line of reasoning would render the Consequence Argument meaningless as any discussion about AP would be unnecessary to free will. However, if we consider Dennett’s example with UR in mind then the picture is different. It can be taken for granted that Luther was responsible for his actions, even if he could not

have done otherwise and his actions were determined only if we consider UR (Fischer et al., 2007:15). He would be responsible for his action only to the extent that he was responsible for his earlier actions which formed his present character (Fischer et al., 2007:15). In this way many libertarians attempt to use UR, where AP fails, to demonstrate the incompatibility between free will and determinism.

3.1.4. Unusual Conceptions of Agency: The Intelligibility Problem

Many opponents, such as Fredrich Nietzsche (1886[2003]), have argued that it is impossible or unintelligible for people to be the ultimate source of their will (Hatab, 2008). As suggested in Section 2.1 above, if free will is not compatible with determinism, then it appears to not be compatible with indeterminism either. For example, if an action occurred due to a chance event taking place in a person's brain it would be considered an accident rather than a responsible choice. Such a chance event appears to threaten our freedom and power. To answer criticisms many libertarian thinkers, such as Immanuel Kant (1785) and John Eccles (1970), have resorted to unusual kinds of agency, which led many critics to claim that libertarians have a poor history of defending their position. Immanuel Kant admitted that science and psychology were required to believe in morality, but that free will could not be understood in their terms (Kant, 1956:100-106; Wolt, 2018). Kant made use of an agent which exists outside of space and time, which he called a noumenal self, to support his notions (Kant, 1956:100-106; Wolt, 2018). In a similar vein, John Eccles appealed to a transempirical power centre which filled the causal gaps created by physical causes (Eccles, 1970:118-120). Many modern libertarians, such as Roderick Chisholm (1967) and Randolph Clarke (2003), tend to rely upon conceptions of agents or immanent causation which cannot be explained in terms of the usual causation terms employed by the fields of science. Some of these constructions may be necessary to understand free will, but they do not really contribute to answering the problem of indeterminism and often create further questions.

3.1.5. Implication: The Dialectical Impasse

In response to criticisms, libertarianism has developed ever more complicated rejoinders which have done more to confuse than to shed any light on free will and moral responsibility. The complicated conceptions of Bergson temporal elements, the thorny interpretations of "can" and "power", Kant's outside of time and space agent,

and Eccles's transempirical power centre illustrate how the dialectical impasse in the free will debate has created a very tangled web of ideas which needs new insight. The compatibilists have been the greatest critics of libertarianism; however, compatibilism is not without its own critics, complexities, and web of ideas. Having briefly highlighted some of the most noticeable problems facing libertarianism, I now turn my attention to the dialectical impasse from the compatibilist perspective.

3.2. Compatibilism

As mentioned in Sections 2.1 and 2.5, compatibilism generally argues that free will and determinism are mutually compatible and that it is possible to rely on both without there being a logical contradiction (Honderich, 2005:151; Levy, 2018). They argue that causal determinism does not eliminate the reality of potential future consequences (McKenna & Coates, 2021). Compatibilists defend this position by suggesting that the opposite of free will is not having one's mental states and acts determined but by having them coerced or compelled (Vincent, Poel & Hoven, 2011:1). In this way compatibilists argue that an agent is morally responsible, even if determined, so long as the agent is able to act differently if they had chosen otherwise (Honderich, 2005:151).

Most determinist positions rely upon there being a deterministic relationship between a person's will and their actions. This relationship permits a person to take responsibility for their actions, so long as they are free from external compulsion, they possess freedom of action (Hobbes, 1946:84,136-137). This kind of freedom is the compatibilist understanding of freedom which was promulgated by Thomas Hobbes (1946) and David Hume (1777). Hobbes (1946:136-137) noted "[l]iberty, or freedom, signifieth, properly, the absence of opposition; by opposition, I mean external impediments of motion. …" and that "according to this proper, and generally received meaning of the word, a Freeman, is he, that in those things, which by his strength and wit he is able to do, is not hindered to do what he has a will to." Hume (1975:95) argued that "by liberty, then, we can only mean a power of acting or not acting, according to the determinations of the will; that is, if we choose to remain at rest, we may; if we choose to move, we also may." From this account we can see that compatibilists go

further by joining free will with freedom of action, i.e., a person is free, and they possess free will, if they are not in visceral restraints. However, freedom of the will is distinct from freedom of action[16] (Kane, 2019:114-115).

Figure 3 below accurately illustrates the current structure of the free will schools of thought which flow from determinism and provides a good overview of the context of the compatibilist concepts I will deal with in this section.

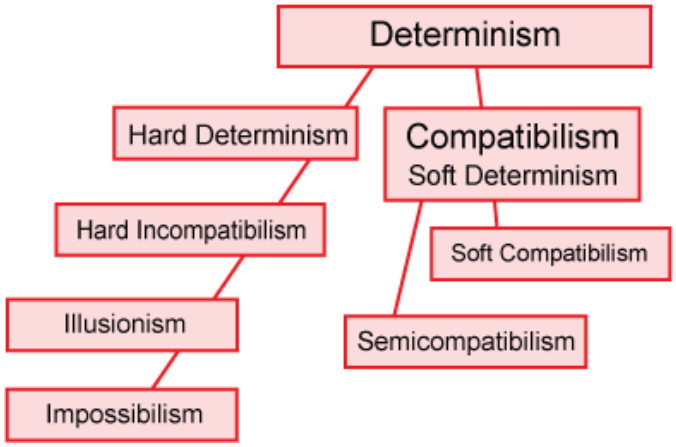

Figure 3: Diagrammatic representation of the various compatibilist free will schools of thought (Doyle, 2011:19).

The recent development of the Consequence Argument, Frankfurt's conception, the Principles of Alternative Possibilities, and Strawson's work on reactive attitudes have had a major impact on the current shape of compatibilist thought. Almost every contemporary account of compatibilism has been influenced in some way by these developments, which is why I shall be discussing them here. As a continuation for the discussion in the previous section, I will begin by looking at the Consequence Argument.

3.2.1. The Consequence Argument

As explained in the previous section, the consequence argument is concerned with power necessities, or rather with a person's power over a fact. It is concerned with what a person is unable to change (Ekstrom, 1998:334-335, Huemer, 2000). A person does not have power over a fact if such a person cannot act in a way that the fact does

[16] Historically speaking freedom of action has been conceived of as the power to freely express the will which a person already has in action, while freedom of the will has been considered the power to freely form the will which a person may later express in action (Kane, 2019:114-115).

not allow. The example used in the previous section dealt with the past and laws of nature, but a further example is the facts of mathematics (Ekstrom, 1998:334-335, Huemer, 2000). For instance, no person can behave in such a way that would render the truths of mathematics untrue. The truths of mathematics can thus be described as power necessities as far as they relate to a person. It is from this line of reasoning that the claim was made that if a subsequent action/fact was caused by an original action/fact which a person has no control over, then they will also not have any control over the subsequent action/fact, i.e. the person's powerlessness to act is transferred from the original action to the subsequent action (Ekstrom, 1998:334-335; Huemer, 2000; McKenna & Pereboom, 2016: 75-78).

The Consequence Argument is especially convincing, and it gained incompatibilists a clear dialectical advantage. It also meant that compatibilists had to now offer a positive account of the ability to do otherwise and to show how the Consequence Argument is false (Horgan, 1985:339).

Some compatibilists, such as John Martin Fischer (1995), admit that the Consequence Argument (CA) is strong, but argue that it fails to be incontrovertible. Numerous forms of compatibilism have developed in response to the CA (Fischer, 1995; Perry, 2008). For example, Multiple-Pasts Compatibilists argue that a person can behave in such a way that the past is different from what it was. They also suggest that a person's freedom does not have to be conceived of as the type of freedom which, provided the laws of nature are fixed, can extend the past (Fischer et al., 2007:55-56). Another line of reasoning which has developed is Local-Miracle Compatibilism which argues that a person can sometimes act in a way that a natural law which did activate would not have done so, and they are prepared to tolerate minor alterations in the past and the laws of nature (Fischer et al., 2007:55-56).

Here again we come to the development of a dialectical web of ideas and counter ideas. Despite the Consequence Argument providing what appears to be strong support for incompatibilists it still prompts the development of further counter arguments, such as the multiple-past and local-miracle approaches. Although this may be a theoretically sound occurrence, I fail to see how it genuinely contributes to the free will debate in relation to a person's everyday experience of morality or realities of

the physical world. A major counter argument which has arisen in response to the Consequence Argument is the Principe of Alternative Possibilities.

3.2.2. Principle of Alternative Possibilities

A common approach which is employed by compatibilists to address the Consequence Argument is by arguing that determinism may eliminate the ability to do otherwise, and that such an ability is not actually needed for free will (Blackman, 2016:529-530). In this way compatibilists attempt to overcome the criticisms raised by challenging the Consequence Argument's principle that if a person's action is free, then they could have done otherwise. This approach attempts to establish a person's control over their own actions in features of their agency which are separate from their ability to do otherwise (Blackman, 2016:529-530). The example and argument developed by Harry Frankfurt (1969), which I discussed in Chapter Two, is a powerful line of reasoning which has allowed compatibilists to develop such approaches.[17]

As previously noted in Section 2.5.1, Frankfurt's (1969) argument was challenged by the Principe of Alternative Possibilities (PAP), which argued that a person is only morally responsible for their actions if they were able to do otherwise (Widerker, 1995:247-248). Frankfurt's argument centred on the idea of a person which is held to be morally responsible for their action, but could not, at the time of acting, do otherwise (Frankfurt, 1969). Consider this Frankfurt styled example (Frankfurt, 1969:835; Widerker, 1995:249-253), John decides to shoot Smith. Black has become aware of John's plot, and he wants John to shoot Smith. But Black wants John to freely shoot Smith, without intervention. But worried that John might hesitate to shoot Smith, Black covertly positions things so that, if John shows any sign that he will not shoot Smith (assume that Black can perceive this), Black will be able to manipulate John to shoot Smith. When it comes down to it, John freely shoots Smith according to his own plan. In no way was John forced, manipulated, or tricked into shooting Smith. John shot

[17] Frankfurt argued that humans are capable of complex mental states called "second-order" states where one could have desires about desires (Frankfurt, 1969). He argued that our second-order desires can take several forms, namely: 1) We could desire that we are rid of a desire that we do have, e.g., we could desire not to desire ice cream, 2) we could desire to obtain a desire that we do not have, e.g., we could desire to acquire the desire to exercise, and 3) we could also desire that one of two of our competing desires should override the other, e.g., we could desire that our desire to exercise override our desire for ice cream (Frankfurt, 1971:6-7). Frankfurt suggested that our ability to have desires about desires is what allows us to assess ourselves contemplatively (Fischer et al., 2007:56-61).

Smith using his own free will and Black did not need to intervene. Despite having freely shot Smith, John could not have avoided shooting Smith (given Black's presence). Thus, John could not have done otherwise. This example illustrates Frankfurt's idea of a person who is morally responsible despite not having been capable of doing otherwise.

If Frankfurt's line of reasoning is accurate, then determinism does not threaten a person's moral responsibility, even if it is incompatible with the kind of freedom which involves the ability to do otherwise. Frankfurt's account has generated a plethora of intricate examples and counterexamples which has contributed to the dialectical impasse which prevails in the theoretical landscape (Blackman, 2016:530; Haji, 2017). Although his account has challenged the PAP it has not defeated it, however, it has emboldened many compatibilists to conceive of freedom in ways which do not rely upon the ability to do otherwise. As with the Consequence Argument this approach has generated further counter examples. Although I am in favour of seeking new insights into the free will debate, I do believe that any such insights need to acknowledge and agree with the empirical research and should shed light on the free will debate rather than simply add to the web of conceptions.

Attempts have been made by some compatibilists, such as Gary Watson (1982), to break the dialectical impasse by employing Strawsonian conceptions of compatibilism. With the publication of Strawson's work, several new and interesting compatibilist accounts have developed which are worth highlighting as a few of them confirm that folk conceptions of responsibility and empirical research are key features to understanding free will.

3.2.3. Reactive Attitudes

In his 1962 work, "Freedom and Resentment", Strawson (1962[2008]) advances three dissimilar accounts of compatibilism which were very removed from the classical account of compatibilism described in Chapter Two. A valuable contribution was his general conception of what moral responsibility is (Downie, 1966:33; Tollefsen, 2017:355). Strawson argues that the traditional understanding of moral responsibility,

as outlined in Chapter One[18], is incorrect, and that each person involved in an event argues for or against a partisan image of an event (Downie, 1966; Strawson, 2008:1, 22; Tollefsen, 2017:355). He suggested that many of the traditional arguments between compatibilists and incompatibilists, such as the nature of the ability to do otherwise, are erroneous. The reality of determinism would be unrelated to our moral responsibility systems, since our commitment to these systems is in some way linked to both our reactive attitudes, e.g., resentment and gratitude, and our involvement in interpersonal interactions (Strawson, 2008:1, 22). Strawson's sentiments regarding the erroneous nature of many of the exchanges in the free will debate and the inaccuracy of the traditional understanding of moral responsibility resonates with my concerns regarding the dialectical impasse as well as my proposal for reimagining our system of responsibility.

In discussing moral responsibility, Strawson considered the reactive attitudes which a person has towards another when they perceive that the other person's actions harbour hostility (Downie, 1966:33-34; Russell, 1992:287-288; Strawson, 2008:15-16). He argued that the reactions that originate from perceiving such hostility are attitudes that are directed towards the other person's hostile intentions. He suggested that when someone wrongs a person, the mistreated person characteristically has a personal reactive attitude of resentment. When the wrongdoer wrongs an additional person, then the natural reactive attitude is one of moral indignation (Downie, 1966:33-34; Russell, 1992:287-288; Strawson, 2008:15-16). This moral indignation has been described as resentment felt vicariously on behalf of the wronged third party. Finally, if the wrongdoer is oneself, then upon reflection and realisation that a wrong was committed the natural reactive attitude is one of guilt. What I find refreshing in Strawson's account is his consideration of not only the ordinary folk conceptions of moral responsibility but also the personal and interpersonal elements which are involved in holding a person to blame. These personal and interpersonal elements

[18] As a reminder, moral responsibility has traditionally been conceptualised as firstly, the possession of a moral duty and secondly, as meeting the requirements for being worthy of blame or praise for a morally substantial action or exclusion (Honderich, 2005:815). These two conceptualisations are linked in that a moral agent can be regarded as being responsible for neglecting to carry out a moral duty (Honderich, 2005:815) or for acting contrary to a moral duty, for example, lying when one has a duty to tell the truth.

may well find support in the evolutionary and neuroeconomic research findings which I discuss in Chapter Four.

Strawson attempted to show that there was a great deal more involved in holding someone to be not responsible for an action than a simple objective evaluation that they did not act or did not have an intention to act. He argued that holding someone to be not responsible for an action involved the suspension of the morally reactive attitude which involved emotional responses (Downie, 1966:33-34). This line of reasoning means that evaluating a person as being morally responsible for an action simply entails maintaining a morally reactive attitude (Tollefsen, 2017:355-356). The important point of this conception is that the moral reactive attitude is a response to the perceived hostility in the behaviour or action of the person being evaluated as morally responsible (Russell, 1992:289). What this means for questioning the basis of moral responsibility as irrational and disposable is that it is equivalent to questioning the basis for people's morally reactive attitudes towards people that wrong others (Russell, 1992; Strawson, 2008; Tollefsen, 2017). The point Strawson is attempting to make is that morally reactive attitudes are a natural feature of social life are so intricately linked to moral responsibility that is it appears impossible to give them up. I believe that Strawson's appeal to folk conceptions of responsibility and moral psychology are important steps towards shedding light on the free will debate and breaking the dialectical impasse.

Strawson's ideas have led to an expansion of compatibilist theory which has attempted to use Strawsonian ideas to break the current dialectical impasse (Strawson, 2008; Kane, 2016). Gary Watson (1982, 2001) attempted to conceive of morally reactive attitudes as a communication-based theory of moral responsibility, where a person's moral responsibility would revolve around the moral conversations between the moral actor and the moral community in which they act. Watson's approach would mean that an essential element of moral responsibility would be the ability to communicate morally with adherents of the moral society. Watson uses the examples of Jesus, Gandhi, and Martin Luther King, Jr and writes that their "lives do not seem characterized by human isolation: They are often intensely involved in the fray of interpersonal relationships... [and] do such things without vindictiveness or malice" (Watson, 1987:148). What this suggests is that there is an important link between

community, interpersonal relationships, and moral responsibility, which is underemphasised in the current literature.

John Martin Fischer and Mark Ravizza have taken a different approach to Strawson's argument by suggesting that a particular conception of control, namely, "guidance control", promotes the ability to apply the idea of moral responsibility (Fischer, 1982; Fischer & Ravizza, 1998:277; Glannon, 1999). They conceive of guidance control as 1) the capability to relate to the reasons that result in a person's actions, 2) for these reasons to link up with actions in the correct way, and 3) for these actions to link up with happenings in the exterior world in the correct way (Fischer & Ravizza, 1998:277). The important point in their conception is not that a person has the ability to choose to do otherwise, but rather that they obtain their reasons independently and in a way which is not coerced or compelled. They are attempting to expand Strawson's original ideas in a way that argues that moral responsibility should be seen in terms of the propriety circumstances for morally reactive attitudes (Fischer, 1982; Fischer & Ravizza, 1998:277; Glannon, 1999).

Another prominent compatibilist, Susan Wolf (Wolf 1981:390, 2015), argues in support of Strawson's idea that interpersonal conditions which allow for morally reactive attitudes cannot be relinquished by a free person. She is joined in her defence of this idea by many other compatibilists such as Seth Shabo (2012) and D. Justin Coates (2013).

R. Jay Wallace (1998:1-2) also reimagines Strawson's basic idea by viewing it through the lens of moral standards of fairness. He attempted to show that moral responsibility is derived from such moral standards rather than from naturalistic truths (Kane, 2002; Montmarquet, 2002). This line of reasoning has become popular as a serious alternative to views which focus on the nature of people and the action-theoretic features of free will.

3.2.4. Implications: The Dialectical Impasse

In this section, I have shown that, as with libertarianism, compatibilism suffers from the same problem of a continuously growing web of theoretical ideas and a dialectical stalemate. This can be seen with the multiple-past and local-miracle approaches to

compatibilism which arose in response to the Consequence Argument and Principe of Alternative Possibilities which is used as a counter argument to the Consequence Argument. I have also shown that the essence of my concern regarding the dialectical impasse is shared, in some measure, by Strawson and other theorists who have attempted to reassess conceptions of free will and moral responsibility to break the dialectical impasse.

Having established the dialectical impasse from the libertarian and compatibilist positions, I now turn to the incompatibilist position and its contribution to the free will dialectical deadlock.

3.3. Incompatibilism: Sceptical Views

Roughly speaking, incompatibilism is the notion that free will is irreconcilable with a deterministic world. This notion has given rise to schools of thought that deny the existence of determinism and believe in free will, such as the libertarians which were discussed in an earlier section, and those that doubt the existence of free will and instead believe that the world is determined. It is the latter school of thought which I am concerned with in this section.

As indicated at the start of this chapter and illustrated in Figure 3 earlier, the proponents of hard determinism have begun to branch off into various schools of thought, such as impossibilism (Vihvelin, 2018), hard incompatibilism (Pereboom, 2001), and illusionism (Kane, 2011:31). For context and to illustrate the variety of positions which the dialectical impasse has produced it is beneficial to briefly outline some of the various incompatibilist positions before specifically discussing those features of incompatibilism which establish the dialectical impasse. Hard incompatibilists propose that both free will and moral responsibility are not consistent with determinism (Pereboom, 2001). Illusionists are incompatibilists who argue that free will is nothing more than an illusion (Kane, 2011:31). Impossibilists argue that that free will does not exist and is simply impossible (Vihvelin, 2018). Soft incompatibilists, on the other hand, hold that both free will and moral responsibility are irreconcilable

with strict determinism, but that both are consistent with an adequate determinism[19] (Vihvelin, 2018). Adequate determinism can be described with reference to microscopic quantum events which are powerful enough to deny determinism, but their magnitude is usually so minor, particularly for sizeable macroscopic bodies, that the world remains overwhelmingly deterministic (Doyle, 2011: xxii). The details and workings of adequate determinism can become especially complicated and are beyond the aims of this chapter. For my purpose, it is sufficient to note that quantum chance, as made possible by adequate determinism, is principally required to produce irregular and "free" alternative possibilities for action. Thus, adequate determinism gives compatibilists the type of free will that they assert they need, namely the causal link between motives, feelings, reason, etc. and the actions selected from freely created possibilities. I undertake more detailed discussion of quantum mechanics contribution to the free will debate and the dialectical impasse in Chapter Four.

With the context of incompatibilism briefly described, I now turn to discussing some of the positions and features of incompatibilism which establish the dialectical impasse. I start with hard determinism, before moving on to Pereboom's responses to libertarianism and compatibilism and conclude by discussing metascepticism.

3.3.1. Hard Determinism

As discussed in Chapter Two causal determinism can be described as the notion that every action is the inevitable result of actions and events which came before and the laws of nature (McKenna & Pereboom, 2016:31-32). The historical problem was with merging the notion of free will with the idea that our actions might be determined by forces which are not within our control. The common historical hard determinist view was that determinism is true and that it is incompatible with free will because it disqualifies the ability to do otherwise or that it does not allow a person to be the ultimate source of their own action (McKenna & Pereboom, 2016:31-32).

[19] Adequate determinism is the type of determinism that exists in the world. It is a statistical determinism, where the statistics are close to certainty for large macroscopic bodies. Adequate Determinism also incorporates indeterminism as an irreducible feature of the microscopic quantum world (Hawking & Mlodinow, 2010:32).

As will be discussed in the next chapter, hard determinism of this kind is not as fiercely defended as it was, because quantum mechanics is perceived to pose a serious threat to the idea of universal determinism[20] (Hoefer, 2016; Vaidman, 2014:1-2). Despite this, many modern free will sceptics' arguments can be said to be descendants of the traditional argument of hard determinism. Thus, if quantum mechanics is shown to be true and a genuine threat to the idea of universal determinism, then the hard determinist positions which rely upon it may find themselves in an untenable position.

3.3.2. Pereboom on Libertarianism and Compatibilism

To bolster the sceptics' view of free will, Pereboom (2007:85-87) directly challenges the arguments for event-causal libertarianism, agent-causal libertarianism, and compatibilism.

As discussed in the previous sections, event-causal libertarianism holds that a person's actions are entirely the result of events and moral responsibility requires that a type of indeterminacy exists in the creation of the action by related events. Agent-causal libertarianism argues that the type of free will which is required for moral responsibility is described by the presence of an agent who has the ability or causal power to act without being determined (Pereboom, 2001, 2014). This type of causation is dependent on a person making a choice which cannot be described by events which the person is involved in, but rather indisputably by the person's own causal power.

A common argument against libertarianism is that a person cannot be held morally responsible for an action if the action is not determined (Pereboom, 2014:59). In *Treatise of Human Nature*, David Hume (1888) argued that if a person's action is uncaused, then the action cannot have enough of a connection to the person acting for them to be morally responsible for it (Pereboom, 2014:59). Considering this, it would appear as if the person acting ceases to play a key role at the point where it matters most, i.e., at the point where conditions necessary to cause an event are

[20] It is broadly believed that quantum mechanics is a strongly non-deterministic theory. The common belief is that the theory illustrates that occurrences such as radioactive decay, photon emission and absorption, and numerous others are of such a nature that only a probabilistic explanation of them can be provided. Quantum mechanics does not say what occurs in each instance, but only shows what the probabilities of different outcomes are. As I illustrate in Chapter Four, the findings of quantum mechanics have played an important role in bringing new insight to the free will debate.

taking place. Pereboom describes this as the disappearing agent argument (Pereboom, 2014:60-61). To respond to this problem, the agent-causal libertarians reimagined the person acting as not merely involved in events, but rather as a fundamental substance which possess the undetermined causal power to cause events. As is the case with hard determinism quantum mechanics poses a major threat to agent-causal libertarianism (Vaidman, 2014; Hoefer, 2016).

Pereboom (2008:1963-64) believes that the best argument against compatibilism is a manipulations argument. This argument can be described by imaging a person whose brain is manipulated by a scientist (Pereboom, 2001:112; Matheson, 2016). Such a person cannot be held morally responsible for their determined actions even if they meet the compatibilists requirements for moral responsibility. Pereboom goes on to argue that there is not difference between such a manipulated person's actions and the actions of any other person with deterministic actions. In this way Pereboom argues that it is not reasonable to suggest that a manipulated person is morally responsible while other deterministic agents are not (Matheson, 2016).

Pereboom points out that there are multiple cases of the manipulation argument which show that even if the compatibilist requirements for moral responsibility (for example those advanced by David Hume (1748), Harry Frankfurt (1971), John Martin Fisher (1998), Mark Ravizza (1998), and R. Jay Wallace (1998), discussed in the previous section) are met it is possible that a person is not held to be morally responsible (Pereboom, 2001:110-28, 2008, 2014). Pereboom takes this further by then suggesting that the compatibilists requirements are insufficient.

Since event-causal and agent-causal libertarianism, as well as compatibilism, face significant challenges, Pereboom believes that the only viable approach to the free will problem is free will scepticism, which rejects the idea that we possess the free will needed for moral responsibility (Pereboom, 2001, 2008, 2014). This conclusion raises the problem of how people can be held responsible for their actions if they did not have access to the free will needed for such responsibility. It is disputes and outcomes over moral responsibility, such as theses, that have promoted thinkers, such as Tamler Sommers (2017), to put forward meta-sceptical positions which favour irrealist conceptions of moral responsibility.

3.3.3. Metascepticism

In *Relative Justice*, Tamler Sommers (2017:1-3), argues that we should come to irrealist conclusions about moral responsibility since our human cultures are composed of logically unworkable disputes about responsibility. Sommers' bases this irrealist account on the idea that there is no theory about moral responsibility which has shown itself to be true.

Sommers's argument differentiates between people's intuitions about moral responsibility in honour cultures and institutional cultures (Sommers, 2017:33-36). In institutional cultures a person's moral responsibility is determined by appeal to the person's control, intention, and freedom of action. However, in certain honour cultures holding someone morally responsible for an action which they did not have control over, and which did not represent their intention is acceptable. For, example in certain honour cultures it is acceptable to kill a member of a murder's family or group (Sommers, 2017:33-36). As mentioned in Section 2.2.1, King Agamemnon was held to be responsible for his actions even though his actions were a consequence of the god's manipulation (Aeschylus, 1984:103-172). People in honour cultures view such practices as instinctively apposite, while people in institutional cultures view them as naturally unacceptable (Sommers, 2017:39-42). Sommers's argues that this disagreement is rationally irresolvable and thus he arrives at an irrealist account regarding moral responsibility.

Zac Cogley (2012) has raised a few issues with Sommers's line of reasoning. He has argued that even within institutional cultures there is often disagreement surrounding which conditions are needed for moral responsibility and that this disagreement does not result in irrealism about moral responsibility being assumed. A reply to this objection has been that the disparity between institutional cultures and honour cultures is far more pronounced and extreme. For, instance there is often disagreement about the role of religion in evolutionary theory, which does not assume irrealism, but rather addresses how to navigate the details of evolutionary theory (McKenna & Pereboom, 2016:275-276).

A further response to Cogley has been that even in institutional cultures people are often held to be responsible even when it is not believed that they are responsible (McKenna & Pereboom, 2016:275-276; Sie & Pereboom 2017). An example of this is the legal concept of strict liability. The application of this concept can be seen in accidents between a cyclist or pedestrian and a car driver where the car diver is held to be responsible irrespective of culpability and intent (McKenna & Pereboom, 2016:275-276; Sie & Pereboom 2017). This concept has been employed for several practical reasons. For instance, it streamlines legal practices, and it can cultivate a reason for motorists to be more cautious. This rational can be extended to honour cultures. For example, the killing of a murderer's family member may be justified on the grounds that it encourages group members to be more vigilant, keep each other in line, and is effective in cultures where expansive legal system, which are common in institutional cultures, do not exist (McKenna & Pereboom, 2016:275-276; Sie & Pereboom 2017).

3.3.4. Implications: The Dialectical Impasse

I have briefly noted Pereboom's challenges to both libertarianism and compatibilism as well as his conclusion that we do not possess the free will needed for moral responsibility. I further showed that conclusions, such as Pereboom's, have led thinkers such as Sommers and Cogley to have lengthy interplays seemingly without a productive end. This brief glance at some incompatibilist ideas shows that this school of thought suffers from a dialectical impasse as much as its counterparts. Additionally, the brief mention of quantum mechanics threat to hard determinism points to my argument that greater attention needs to be paid to empirical research in order to bring fresh insight into the free will debate.

3.4. Conclusion

The purpose of this chapter is not to provide a detailed look at the various free will schools of thought. Such an undertaking is beyond the scope of this dissertation. The aim of this chapter has been to show, by looking at some modern dialectical exchanges, how the continuous theoretical back and forth between the various schools of thought has led to a theoretical deadlock and a theoretical landscape which

is cluttered with numerous arguments, counterarguments, and counter-counterarguments. This impasse is not advantageous, and a resolution is needed.

I have illustrated this dialectical impasse in the field of libertarianism by investigating libertarianism's responses to criticisms. I have shown that libertarianism has developed ever more complicated rejoinders which have done more to confuse than to shed any light on free will and moral responsibility. The complicated conceptions of Bergson temporal elements, the thorny interpretations of "can" and "power", Kant's outside of time and space agent, and Eccles's transempirical power centre illustrate how the dialectical impasse in the free will debate has created a very tangled web of ideas which needs new insight.

I went further by showing that, as with libertarianism, compatibilism suffers from the same problem of a continuously growing web of theoretical ideas and a dialectical stalemate. This can be seen with the multiple-past and local-miracle approaches to compatibilism which arose in response to the Consequence Argument and Principe of Alternative Possibilities which is used as a counter argument to the Consequence Argument. I also showed that the essence of my concern regarding the dialectical impasse is shared, in some measure, by Strawson and other theorists who have attempted to reassess our conceptions of free will and moral responsibility to break the dialectical impasse.

I concluded the chapter by investigating incompatibilism's contribution to the dialectical impasse. I noted Pereboom's challenges to both libertinism and compatibilism as well as his conclusion that we do not possess the free will needed for moral responsibility. I further showed that conclusions, such as Pereboom's, have led thinkers such as Sommers and Cogley to have lengthy interplays seemingly without a productive end. This brief look at some incompatibilist ideas shows that this school of thought suffers from a dialectical impasse as much as its counterparts. Additionally, the brief mention of quantum mechanics threat to hard determinism points to my argument that greater attention needs to be paid to empirical research in order to bring fresh insight into the free will debate.

I have shown that my concerns regarding the dialectical impasse and unproductive nature of the theoretical back-and-forth are shared by several thinkers, such as Strawson and Sommers. Various thinkers such as, Gary Watson (1982, 2001) and Strawson (2008) are producing conceptions of free will and moral responsibility which pay greater heed to empirical findings and the work of experimental philosophy, especially in terms of a person's ordinary experiences and understanding of free will and responsibility.

Establishing this dialectical impasse allows me to move onto investigate whether recent developments in the fields of moral psychology and experimental philosophy can contribute to breaking the dialectical impasse.

Chapter Four:
Contributions of Experimental Philosophy

Having established the dialectical impasse between the philosophical positions in the free will debate, I now move on to investigate whether recent developments in the fields of moral psychology and experimental philosophy can contribute to breaking the dialectical impasse.

This chapter is dedicated to an exploration of the empirical developments, related to the problem of free will, in the fields of folk morality, physics, neuroscience, and psychology. I begin with folk intuitions on free will and choice, and specific attention is focused on the seminal work by Shaun Nichols. I then investigate what impact the work of recent physics has on free will and determinism. Since quantum mechanics is the dominant theory concerning the motion of physical objects, it is discussed in some detail. That is followed by a reflection on experiments in neuroscience which are influenced by the notion that indeterministic behaviour in animals is a result of evolutionary adaptation. This is complemented by an appeal to neuroscientific research which investigates conscious choice by participants' brain activity and related intentional actions. In the final section of the chapter, I consider some of the psychological research on free will. I show that there exist powerful unconscious influences on a person's decision-making.

I argue that the investigation of all these various findings and experimental insights provides new avenues for the free will debate and that they call into question some of the philosophically held positions and raise new questions that need answering. With this established I will develop a pluralist approach which can accommodate all the contrasting findings in Chapter Five.

4.1. Folk Morality: Ordinary Moral Intuitions

Morality in philosophy is concerned with what is right and wrong (Honderich, 2005:622). It investigates the nature of morality and explores how people "should" live their lives in relation to others. This can be contrasted with folk morality which is that

field of philosophy which is concerned with studying the way in which ordinary, philosophically untrained people view morality in their daily lives. It is concerned with how moral ideals are dealt with as ordinary practices and behaviours in the daily lives of ordinary moral agents (Sarkissian, 2016).

In the article 'Moral Responsibility and Determinism: The Cognitive Science of Folk Intuitions', Nichols and Knobe (2007:663-664) argue that the vast body of research which has been produced by the debate between compatibilists and incompatibilists is lacking in focus on the reasons why people have intuitions. They argue that the source of people's moral intuitions may have a major impact upon the substance of the debate.

4.1.1. Shaun Nichols[21] on Folk Intuitions on Free Will and Choice

In the articles 'The Folk Psychology of Free Will: Fits and Starts' (2004), 'Folk Intuitions on Free Will' (2006), and 'Moral Responsibility and Determinism: The Cognitive Science of Folk Intuitions' (2007), Shaun Nichols investigates the problem of free will in terms of folk intuitions and describes the psychological processes which underlie these intuitions. Additionally, he conceives of two dimensions on which the free will debate is balanced, that is that a person's actions are the inevitable result of 1) past events and 2) the laws of nature (Nichols & Knobe, 2007:7; Nichols, 2004). As discussed in the previous chapter, these two dimensions prompt questions about a person's ability to choose to act differently given past events and the laws of nature and whether a person can be held morally responsible for their actions if they are determined by past events and the laws of nature. It is from these two dimensions and their associated questions that Nichols investigates whether folk notions of choice are deterministic or indeterministic and whether folk opinions about moral responsibility are consistent or conflicting with determinism.

Nichols begins by arguing that when a person attempts to practically explain or predict behaviour, they tend to view decisions as deterministic. As evidence for this idea, he

[21] In this section, I pay specific attention to the work and findings of Shaun Nichols and some of his critics. I focus on Nichols' work because he has published widely on folk morality and free will and is considered a leading researcher in the fields of experimental philosophy, moral psychology, cultural evolution, free will, and the self. There appears to be very few publications dealing with the experimental findings on folk morality which do not consider Nichols' work.

makes use of the thought experiment of an exact psychological duplicate, i.e., a different person who right before a choice is made thinks, feels, wants, etc. in the exact same way as another person making the same choice. Nichols suggests that when faced with such an example people are inclined to believe that the duplicate will make the very same choice and that this is in line with a deterministic view of choice. On the other hand, Nichols also claims that in certain situations people are inclined to view choices as indeterministic. In support of this he mentions experiments conducted with children where children were asked to judge whether an event had to happen if everything had been the same up until the event occurs (Nichols & Knobe, 2007:6). The children were presented with physical events, e.g., boiling water, and moral choices, e.g., stealing candy (Nichols & Knobe, 2007:6). When asked if the event had to happen if everything had been the same up until the event occurs the children were more inclined to say that the physical event had to happen, and the moral choice did not (Nichols & Knobe, 2007:6; Nichols, 2004). In the same way adults were presented with a universe which was globally deterministic and another in which only choice was indeterministic and asked to indicate which universe was most like our own (Nichols & Knobe, 2007). Most participants believed that the universe where only choice was indeterministic was most like our own (Nichols & Knobe, 2007). What this suggests is that despite believing that the world around them is determined, people still maintain the idea that their choices are indeterministic. Nichols believes folk intuitions on the deterministic or indeterministic nature of choice are varied (Nichols & Knobe, 2007:13; Nichols, 2006).

In the same way that people have mixed intuitions about choice, Nichols argues that people's intuitions about the compatibilist and incompatibilist nature of free will are also varied. Nichols suggests that people unaffected by emotionally charged triggers are inclined to incompatibilist intuitions, while those subject to emotional triggers are inclined to compatibilist intuitions about free will (Nichols & Knobe, 2007:13). When adults were presented with a universe which was deterministic and asked, in an abstract manner, whether a person can be morally responsible in such a universe, they were inclined to take the incompatibilist view that people cannot be morally responsible. However, when they were asked, in an emotionally prompted manner (e.g., the killing of one's own family), if a person could be morally responsible, people responded with the compatibilist view that they could (Nichols & Knobe, 2007:10-13).

What this demonstrates is that people appear to have mixed intuitions about free will. Since, this is the case any account of free will would be remiss if it could not account for these contrasting intuitions.

It appears to me that Nichols' approach to indeterministic intuitions about choice and incompatibilist intuitions about moral responsibility is one of acquisition. He is concerned with how these intuitions are acquired. He argues that the conventional notion of introspection provides unsatisfactory explanations of these intuitions and offers an explanation in terms of the idea of obligation (Nichols, 2006; Nichols & Knobe, 2007). Nichols (2006) argues that there is ample evidence that, from an early age, children have a good grasp of the concept of obligation.

If we consider Kant's (1956 [1788]) conception of obligation, then our conception of obligation takes on an indeterministic nature which suggests that a person could have done otherwise (Nichols, 2004b:493-494; Johnson & Cureton, 2021). It has been argued, by thinkers such as Guyer (1998), that Kant (1956 [1788]) believes that the certainty of free will can be assumed from the reality that a person ought to adhere to moral laws coupled with the reality that 'ought' entails 'can'. Kant asserts that it is indisputable that a person has an obligation to act in agreement with moral laws (Kant, 1956[1788]; Guyer, 1998). It is assumed that a person cannot be expected to do something that is impossible, and it is impossible to do otherwise if determinism is true, so if it is said that a person ought to have acted in another way then it is implied that they could have done otherwise. Following from this, a child who accepts that the concept of obligation implies that they could have done otherwise has good grounds for believing that choices are indeterministic (Nichols, 2004b:493-495).

I suggest that this line of reasoning can be extended to moral responsibility. Let us assume that a person can be considered responsible for their behaviour only if there exists a normative expectancy that they ought to have acted in another way. A person who accepts this normative expectancy as a requirement for the assignment of responsibility has good grounds for believing that moral responsibility is incompatibilist. This can be demonstrated as follows: P1) having the choice to act otherwise is indeterministic, P2) the ability to act otherwise is required for the

assignment of moral responsibility, C) therefore, moral responsibility implies the existence of indeterminism.

Although Nichols' work on folk morality and ordinary perceptions of free will and moral responsibility are extensive, his findings and interpretations have been questioned by other scholars. In order to gain a wider understanding of how free will and folk morality are related it is worthwhile to briefly discuss some of the criticisms which have been raised.

4.1.2. Replies to Nichols

Several philosophers, such as Paul Bloom (2006), Charles Kalish (2006), Manuel Vargas (2006), and Eddy Nahmias (2005), have questioned Nichols' explanation of folk intuitions regarding choice.

Paul Bloom (2006:211) puts forward a methodological issue with Nichols' results on the deterministic nature of people's intuitions about choice. He claims that people hold an unspoken opinion of their action which entails free will, i.e., human beings implicitly subscribe to indeterministic choice. Bloom argues that people are intuitively dualistic and that we describe and explain the social world in a way which is distinct from our description and exploration of the physical world (Bloom, 2006:213). This intuitive dualism is what allows human beings to subscribe to the idea of indeterministic choice while also maintaining the deterministic features of the physical domain. Although Bloom offers an appealing explanation for the mixed nature of folk intuitions on free will and choice, he does not appear to disagree with Nichols' argument that folk do have mixed institutions.

Eddy Nahmias (2005:574-575) has offered different explanations of the results which indicate that people hold indeterministic intuitions regarding choice. Nahmias suggests that what underpins a person's indeterministic intuitions are the complexities of the situation being encountered rather than the choices themselves. For example, in the case of the simple process of water boiling, holding fixed earlier occurrences may well be sufficient to ensure the event takes place. However, in the case of the complex process of the weather, holding fixed previous occurrences may not be sufficient to ensure the that the complex weather pattern takes place (Nahmias, 2006:219). In the

same way, viewing certain human choices as being simple or complex could account for the mixed intuitions. Turner and Nahmias (2006) have supported this view with experimental research which has shown that very few people differentiate between the choices of human beings and physical processes in regards to determinism as opposed to indeterminism.

Charles Kalish (2006) has raised an issue with Nichols' developmental conception of a child's acquisition of the idea of indeterministic choice. He argues that Nichols' conception suggests that the main empirical means by which children acquire the ideas of indeterministic choice is linguistic in nature and that this means of acquisition is vague since normative terms are often used in several non-normative ways. For instance, the term "ought" is often discussed in moral normative terms, i.e. as a term with the power to direct action. However, "ought" can also be used in a non-moral non-normative way to indicate the wisdom of something, i.e. as a suggestion that something is a good idea. Kalish suggests that this ambiguity means that it cannot be reliably said that a child can accurately recognise what is an obligation (Kalish, 2006:203). I agree with Kalish that normative terms are subject to some ambiguity since they are often used in non-normative ways, and thus that an approach which relies upon linguistics as a predominant means of acquisition might require additional evidence to be believed. However, I do not see this caution as a challenge to the substance or results of Nichols conception since Kalish's critique is concerned with how Nichols attempts to account for people's mixed intuitions and does not challenge his findings that people do have such mixed intuitions.

Manuel Vargas (2006) and Eddy Nahmias (2006) have made interesting observations which suggest that what could be at risk with folk incompatibilist intuitions regarding moral responsibility, is the fear that our psychological existence could be rendered epiphenomenal by a form of reductionism. To illustrate this idea, Vargas (2006) has appealed to a study in which participants were more reluctant to assign responsibility when a behaviour was described in physical terms rather than abstract terms. Similarly, Nahmias (2006) has cited a study in which participants were presented with one of two alternative universes. Behaviours and choices in the one universe were

described in terms of physical determinism[22] and the behaviours and choices in the second universes were described in terms of psychological determinism[23]. Nahmias (2006) noted that participants presented with the universe described in terms of physical determinism were far less likely to assign moral responsibility, while the opposite was true for those participants presented with the universes described in terms of psychological determinism.

4.1.3. Implications

Putting aside the question of why people tend to have mixed intuitions about choice, the finding, by Nichols, that a person's ordinary perception of physical events tends to be deterministic, and their ordinary perception of moral events tends to be indeterministic has some interesting implications for the free will debate. The first question, and one I will discuss in the following sections on neuroscience, is the connection between the perception or awareness of a choice and its cause. Is the moment we become aware of a choice the moment that the choice is made or are choices made before we are aware of them?

Nichols' argument that children understand the concept of obligation from a young age coupled with Kant's conception of obligation, as described in section 4.1.1., entails that our conception of obligation takes on an indeterministic nature which suggests that a person could have done otherwise. What I find helpful with this conception is its expansion to moral responsibility. Applying this line of reasoning to moral responsibility would mean that a person who accepts that to assign blame or praise there must exist a normative practice that the agent ought to have acted otherwise, then we have a conception of moral responsibility which takes on an incompatibilist form.

Although Bloom (2006), Kalish (2006), Vargas (2006), and Nahmias (2005) all seem to raise concerns and issues with Nichols interpretation of his results and his conception of how the apparent mixed intuitions arise, there appears to be little disagreement with his claim that such mixed intuitions exist.

[22] Physical determinism is centred on there being physical laws of nature coupled with the claim that all aspects of the world are dependent on physical considerations (Lucas, 2001:66).
[23] Psychological determinism holds that there are certain psychological laws which enable us to predict how a person will react to different situations throughout their life (Lucas, 2001:65-66).

How do these mixed folk intuitions about choice and determinism correspond with the reality of our universe? To establish if there is any describable connection between a person's intuitions and the actual universe, it would be helpful to investigate the findings of physics, neuroscience, and psychology.

4.2. Physics and Free Will

As indicated in Chapter Two, it was thought that physics and classical mechanics described the motion of physical objects in deterministic terms. Classical mechanics is the branch of physics which is concerned with the motion of objects (Blandford & Thorne, 2017: xxxi-xxxii). Classical mechanics held that the position and momentum of physical bodies were stable, innate elements of the particles. It was assumed that the motion of a particle could be inferred from what came before and the laws of physics, which lead to the idea that classical mechanics was deterministic (Blandford & Thorne, 2017: xxxi-xxxii).

There existed several observations which were inconsistent with classical mechanics which led to the development of theories, such as those of Max Planck (1922) and Albert Einstein (Kleinknecht, 2019), to account for these inconsistencies. These new theories gave rise to quantum mechanics[24]. Quantum mechanics has been described as a predictive theory and allows for the estimation of properties and actions of physical systems, i.e., it predicts the outcomes of measurements of particles (Siddiqui, 2019:1-2; Ismael, 2020). Quantum mechanics has been portrayed as being probabilistic, i.e., it is subject to or concerning chance variation. Experimental research has also shown it to be highly effective in accounting for many of the observed inconsistencies in physics (Siddiqui, 2019:1-2; Ismael, 2020).

[24] Both "quantum mechanics" and "quantum physics" refer to the study of subatomic particles. However, "quantum mechanics" is more particular. It is the term which was applied to the field once it was devised into mathematical laws. Once this happened it became a type of mechanics. Prior to the advancement of mathematical laws which regulated subatomic particles, the domain was called "quantum theory" or "quantum physics." The difference between "quantum mechanics" and "quantum physics" is sometimes held by physicists but not essentially by ordinary lay people. For the purposes of this dissertation, I use the prevailing approach and take the terms to refer to the same thing.

To see whether quantum mechanics might affect free will and determinism it is important to establish how it is interpreted. There has been no clear picture on exactly how quantum mechanics should be interpreted (Schlosshauer, Kofler & Zeilinger, 2013:222). It is argued that quantum mechanics interpreted in realist[25] terms is an especially good predictive theory as it mirrors features of corporeal existence. Non-realist interpretations avoid any attempt to reflect reality and is almost entirely concerned with the probabilities related to the results of measurements of particles (Ismael, 2020; Siddiqui, 2019:1-2). Since a non-realist interpretation does not concern itself with the underlying reality, it appears clear to me that it does not have much to say about free will. Thus, in what follows I shall be looking at how the realist interpretations of quantum mechanics affects the substance of the free will debate.

4.2.1. Quantum Mechanics and Determinism

The orthodox interpretation of quantum mechanics is not realist in nature; however, it can be reimagined in realist terms (Ismael 2016, 2020; Farmelo 2019; Hájíek 2013; Glymour 1971). This realist reimaging provides an indeterminist viewpoint of physics (Ismael, 2020). According to this interpretation quantum states form the fundamental elements of reality. These states are thought to be waves and a quantum state is thought of as a complete mathematical explanation of a system (Ismael, 2020).

When a measurement is not being undertaken, then the quantum state acts like a wave and not a collection of particles[26] (Shanks, 1993; Vaidman, 2014). This is in accordance with principles of determinism (Shanks, 1993; Vaidman, 2014). However, when a measurement is taken, then the state acts more like particles. This participle-like behaviour is relevant to free will since particles behave randomly. This means that a particle has no deterministic position, however the participle "jumps" into a deterministic position when a measurement is made (Shanks, 1993; Vaidman, 2014).

[25] Scientific Realism with regards to a theory is the principle that the bodies, including the unobservable bodies, hypothesised by the theory exist and act as the theory claims they do. It is an ontological or metaphysical notion. For instance, a philosopher who is a scientific realist about a theory of electrons may well argue that electrons exist and act essentially as the theory claims they do (Wright, 2018:1).

[26] Particles, in physics, are any of various self-contained units of matter or energy that are the essential components of all matter. Particles include electrons, the negatively charged, nearly massless particles that nonetheless account for most of the extent of the atom, and they comprise the heavier components of the small but very dense nucleus of the atom, the positively charged protons and the electrically neutral neutrons (Mann, 2011).

This jump can be said to be truly indeterministic in nature due the presumptions that the quantum state is a complete system and that all relevant factors have been taken into consideration. That is to say that a participle behaving unpredictably in a system where complete knowledge of the system exists is behaving in a way which is truly indeterministic (Vaidman, 2014; Shanks, 1993). Since all relevant factors are accounted for, there can be no way in which to salvage a deterministic account. It appears to me that on this interpretation it looks as if many events are not determined, and that indeterminism could be, at least in part, the order of the day. That is not to suggest that the indeterminism of physical objects is equivalent to the indeterminism of free will. What is important to note, as I explained in Chapters Two and Three, is that if everything happens for a reason and the present is determined by the past and the laws of nature then it becomes difficult to say that a person has free will, i.e., can a person meaningfully claim that they freely choose to act or behave in a certain way, if their actions are determined? For that reason, an investigation of the potential for physical indeterminism from quantum mechanics is relevant to any discussion about free will. However, the interpretation of quantum mechanics presented above is only one viewpoint. It is worth describing another point of view.

Another prominent interpretation of quantum mechanics was first devised by Louis de Broglie (1928) and later rediscovered by David Bohm (1952). According to the de Broglie–Bohm theory there exists the quantum state, which is described as a wave, but also a set of particles which have determinate positions (Loewer, 1996:98-99; Pereboom, 2001; Vaidman, 2014;). According to this interpretation these two features are fundamental aspects of the universe. This interpretation is deterministic and clearly nonlocal: the velocity of any particle is contingent on the value of the guiding equation, which differs according to the formation of the system specified by its wave function; the latter is dependent on the boundary circumstances of the system (Loewer, 1996:98-99; Pereboom, 2001). Although the entire system is deterministic, we cannot access certain information about the particles. This limited access to information about the participles makes this interpretation probabilistic in nature. The positions of these particles are often described as hidden variables (Loewer, 1996:98-99; Pereboom, 2001). Although access to information on them is limited, they are nonetheless governed by deterministic laws (Loewer, 1996:98-99; Pereboom, 2001). It is the use

of these deterministic laws which allow for especially accurate probabilistic predictions to be made.

4.2.2. Implications for Free Will

Even if an indeterministic understanding of quantum mechanics turned out to be true, I do not believe that its consequences for free will would be straightforward.

An issue which has been raised is that even if quantum mechanics revealed the world to be indeterministic this would not affect objects on a large scale since quantum mechanics is concerned with the physical features of nature at the level of atoms and subatomic particles. In response to this issue some have argued that certain devices which gauge quantum activity, such as Geiger counters [27], can expose the consequences of quantum mechanics. If an indeterministic interpretation were to be proven to be true, then it could mean that many features and events might well be connected to aspects of the physical world which are macroscopic. The relevance of this implication comes back to the standard argument against the compatibility between free will and determinism (List, 2014:156). As I described in Chapters Two and Three, the argument is that P1) a required condition for a person's action to be considered free is that the person can do otherwise, however P2) determinism suggests that a person cannot do otherwise, therefore C) either there are no actions which are free, determinism is false, or both. Yet, if it can be shown that there does exists some measure of indeterminism, then it could be argued that a person does have the ability to do otherwise, and thus their action can be considered free, and ultimately, they can be considered morally responsible for their action.

Another concern is that even if an indeterministic interpretation were to be true, it is unclear that such an interpretation would necessarily support free will. A similar problem was raised, in Chapter Two, with the Greek atomists' concept of the swerve. The apparent randomness of an indeterministic interpretation is not enough to support free will, even if such randomness affects a person's choices.

[27] The Nuclear Regulatory Commission (2020) explains that a Geiger counter is a device utilized for detecting and assessing ionizing radiation. It identifies ionizing radiation such as alpha particles, beta particles, and gamma rays by means of the ionization effect which is generated in a Geiger–Müller tube.

Another concern comes from the presumption that, irrespective of determinism or indeterminism, physics provides a complete account of physical objects (Loewer, 1996:107-108). Classical mechanics assumed that every corporeal event is caused by another corporeal event. However, in the case of quantum mechanics determinism does not need to play a role, even though quantum mechanics is considered a complete theory of the physical world (Loewer, 1996:107-108). To illustrate the concern, consider classical mechanics where if one had knowledge of the location of all the particles of a system and the laws, then one could predicate[28] the precise location of each particle in a later examination. In quantum mechanics it is not possible to predicate where every participle will be, however, you can predicate to a very high degree of certainty the pattern of the particles (Loewer, 1996:107-108). Since, all events are governed by the physical theory there appears to be no room for the self to influence what occurs. Therefore, even if the process were indeterminist, they would not be in a person's control (Loewer, 1996:107-108).

In response some thinkers, such as Uti Egbai (2006) and Barry Loewer (1996), have argued that quantum mechanics might not be complete and that some other objects might in fact contribute to events (Loewer, 1996:107-108). In the article "Can Quantum – Mechanical Description of Physical Reality be considered complete?", published in 1935, Einstein, Podolsky, and Rosen strongly defended this criticism of quantum mechanics. The difficulty with this response is that all the available evidence appears to support the predictions of quantum mechanics. It could be argued that what has been studied thus far is not the correct type of events that would allow us to identify variances from the probabilities of quantum mechanics (Loewer, 1996:107-108). However, if that were to be true, then it could be argued that a person' choices are not confined to the rigid predictions of physics but are in possession of a feature of indeterminacy which physics does not account for.

[28] According to the Harvard University 2017-2020 Prediction Project Website (2020) a great deal in physics is dependent on predicting future events based our current understanding of the universe. For instance, we can determine the exact course of a certain thrown item, and we can also calculate precisely when it will reach the ground. The principle of this is basically that we have knowledge of the world and its circumstances in the present, and we can make use of this knowledge to understand what will occur in the future.

It remains unclear as to whether quantum mechanics poses a real threat to the deterministic outlook of classical mechanics. Quantum mechanics does appear to have made room for indeterminist theories to develop, but the space appears extremely limited and uncertain. Despite the picture still being unclear, the possibility of indeterminism, or at least elements of indeterminacy, being introduced to the physical world has some implications for whether a person can be said to have done otherwise. Additionally, as noted in the previous paragraph, quantum mechanics has raised questions about whether physics is the correct domain in which to seek free will and the nature of human choices. With so many unresolved questions surrounding quantum mechanics, it seems prudent to investigate the domains of neuroscience and psychology which may provide greater insight into a person's choice making abilities, processes, and actions.

4.3. Neuroscience, Economics, and Determinism[29]

From an evolutionary perspective, it has been suggested that certain animals may have developed the ability to act in deterministic or indeterministic ways. This suggestion will be investigated in this section. Observation and consideration of animals' behaviour has shown that at certain times it would be beneficial for an animal to act in an unpredictable, indeterministic, fashion (Glimcher, 2003:222-223, 2005). Evolutionary theorists have suggested that the frequent occurrence of situations which would benefit from unpredictability could have caused certain animals to develop the facility for such indeterminate actions (Glimcher, 2003:222-223, 2005). This suggestion has found support in evidence which shows that animals behave indeterministically when faced with a competitor (Glimcher, 2003:222-223, 2005). Inquiry on neural activity has been found that when receiving the same input on different instances a neuron occasionally reacts in apparently indiscriminate ways.

[29] This section makes extensive use of research by Paul W. Glimcher. I have elected to pay special attention to Glimcher's work since he is one of the leading researchers focused on the study of human behaviour and decision-making. He is also widely known for his crucial part in establishing and expanding the field of neuroeconomics which takes an interdisciplinary approach to investigating how people make decisions. He also established the Institute for the Study of Decision-Making at New York University (NYU).

4.3.1. Neuroeconomics: Neuroscience and Economics

The notion that animals have evolved to solve problems in their habitat, such as acquiring the maximum amount of food in certain situations, has guided research on animal behaviour (Glimcher, 2003; Dorris & Glimcher, 2004;Garner & Mayford, 2012). Generally, animals do exceptionally well when faced with complicated situations where they need to distinguish the optimal food source (Glimcher, 2003). Although animals generally do well in these situations, they do also make “mistakes” (Glimcher, 2003; Dorris & Glimcher, 2004;Garner & Mayford, 2012). For instance, a study by Michal, Krivan & Berec (2011) showed that in 95% of cases great tits ate the prey with the higher yield, but that consumption of the less valuable prey type did not differ significantly from the always-attack approach in 77% of cases. What this study showed is that although animals are very good at distinguishing the optimal food sources, their predictions are also subject to “mistakes”. It has been suggested that these “mistakes” are simple processing mistakes, however according to leading researchers such as Paul Glimcher (2005) these “mistakes” could reveal some deeper aspect of animal decision-making.

Game theory, a branch of economic theory, suggests that in certain situations the best course of action is to behave unpredictably (Glimcher, 2003). The traditional approach to economic theory concentrated on which decision an individual should make given the available facts. A problem arises in that the available facts are often unclear, for example, the actions of other individuals could have a pivotal effect on the result of a certain action (Glimcher, 2003, 2005). In such situations it is beneficial to think of the persons involved as participants in a game (Glimcher, 2003, 2005). The ultimatum game is one such game. In this game one participant, the proposer, is given a quantity of money to share with another participant, the responder (Harsanyi, 1961; Glimcher, 2005). If the responder accepts the offer, then both participants get to keep the money; however, if the responder rejects the offer, then neither gets any money (Harsanyi, 1961; Glimcher, 2005). For games such the ultimatum game, the most advantageous course of action is to behave in a way which the other players are not able to predict (Harsanyi, 1961; Glimcher, 2005).

This idea was expanded and demonstrated by the example of a game called “hawks and doves”, which was developed by Joh Maynard Smith (1982). In this example

Smith described a situation where a species of animals is competing for territory. When a skirmish ensues between two animals then each animal can either fight (hawk) or retreat (dove) (Smith, 1982:11-13). What Smith showed was that in situations where both the costs of fighting and retreating were high then it was more beneficial for the animal to adopt an unpredictable tactic (Smith, 1982:11-20). Smith (1982) has argued that it is very plausible that if behaving randomly conferred an evolutionary advantage upon an animal, then evolution might take place in such a way as to provide the animal with the ability to behave unpredictably. Smith (1982:76) wrote, “If it were selectively advantageous, a randomizing device could surely evolve”.

The implications of ultimatum game, the hawk and dove game, and Glimcher’s views are appealing and appear to be reasonable. From this work, it appears that the ability to behave unpredictably could be advantageous and it makes sense to me that if such an ability would aid survival, then it would be favoured from an evolutionary perspective. However, this idea requires some evidence from biological research to be more completely supported. In the section that follows, I briefly look at the work done by David George Charles Harper and Michael Platt.

4.3.2. Indeterministic Evolutionary Behaviour

A classic experiment was conducted by David George Charles Harper (1982) which looked at the notion that the ability to behave unpredictably could evolve in a species if it provided some evolutionary advantage. He investigated mallard ducks foraging for food (Harper, 1982:575). Mallards typically live-in small groups and attain food by means of foraging. They have exceedingly small brains but were still able to show rational actions which are in concord with forecasts from game theory (Harper, 1982:575). The experiments were directed in Cambridge University botanical gardens in 1979, with a flock of thirty-three mallards (Harper, 1982:575). Two experimenters tossed bread balls: experimenter A threw 2-gram bread balls every 5 seconds, while experimenter B tossed bread balls every 10 seconds. With this setup there was twice as much food at experimenter A. However, if all the mallards went to experimenter A, then the area by experimenter B would be neglected (Harper, 1982:575-576). This fits the form of a game in that what is considered best for an individual depends on the actions of the others, i.e., if 32 of the 33 mallards go to experimenter A, then the remaining one mallard at experimenter B would be in a very advantageous position

(Harper, 1982:575-576). The arrangement which would result in optimal food consumption would be if one-third of the ducks went to experimenter B and two-thirds went to experimenter A (Harper, 1982:575-576).

The researchers found that this optimal arrangement was in fact what was observed. At experimenter A (the high-payoff) two-thirds of the mallards tended to congregate, and at experimenter B (the low-payoff) one-third of the mallards congregated (Harper, 1982:576-577). What was interesting about this is how the arrangement happened. The Mallards moved back and forth between experimenter A and B. Each mallard spent roughly two-thirds of their time at experimenter A and one-third of their time at experimenter B. Which mallards ended up moving between the two was unpredictable (Harper, 1982:576-577).

More recent research, by Michael Platt (2004), had monkeys playing a game against a computer. The monkeys were rewarded for behaving unpredictably. The researchers found that the monkeys were excellent at this game and that in certain important ways they acted in ways that mirrored the actions of people in similar games (Platt, 2004).

It appears as if the biological evidence supports the theoretical idea that in certain situations it is advantageous to behave in indeterminate ways and that this advantage may have led evolution to favour this unpredictable behaviour. But is this genuine indeterminism? Do these results reflect the kind of indeterminism which is important to the free will debate? To establish whether this is the type of indeterminism which I am concerned with, it is necessary to look at what is happening at the neural level. In the section which follows I look at whether genuine indeterminism is predicated by the game theories and illustrated in the research.

4.3.3. Indiscriminate Neural Activity

The research on animals does show that they do behave in unpredictable ways, however, it does not demonstrate that their actions are truly indeterministic. To investigate whether something truly indeterministic is occurring, it might be helpful to look at research in neuroscience which concerns decision-making.

A series of landmark experiments, by William T. Newsome (2004:1782) and his team, were conducted where monkeys watched a display of hundreds of indiscriminately moving dots. In some of the sessions the dots, on average, moved to the left, while in other sessions the dots, on average, moved to the right (Newsome et al., 2004:1782). The monkeys received a reward for indicating that they knew in which direction the dots were moving. The experimenters investigated and assessed what occurs to neurons in the middle temporal (MT) area of the brain and neurons in the lateral intraparietal (LIP) area of the brain during the tests (Newsome et al., 2004:1783-1784). The MT area is a part of the visual cortex which processes sensory information, and the LIP area is that area of the brain which is involved in eye movement and has been associated with decision-making about where to look (Newsome et al., 2004:1783-84; Kubanek & Snyder, 2015; Lappe & Wolf, 2021). In the MT area some neurons are known to react to leftward motion while others react to rightward motion (Newsome et al., 2004:1783-1784). The LIP area makes use of the information from the MT area (Newsome et al., 2004:1783-1784). When the rightward neurons in the MT area are triggered then the LIP neurons which are associated with rightward eye movement exhibit heightened stimulation and the same is true for the triggering of the leftward neurons in the MT area (Newsome et al., 2004:1783-84; Kubanek & Snyder, 2015; Lappe & Wolf, 2021). The heightened stimulation in the LIP area reaches a certain threshold which then results in the eye moving in the stimulated direction (Newsome et al., 2004:1783-1784). In short, the processed sensory, that is, visual, information triggered the LP neurons. The triggering of these neurons reached a certain threshold which then resulted in eye movement. The experimenters used this process to test neural activity associated with visual information which was indeterminate in nature.

This chain of events raises an interesting question about what would happen should the indiscriminately moving dots, in the experiment, not move in a methodical course and what would be the result if the visual feedback is identical (Newsome et al., 2004:1783-1784). The LIP neurons display small discrepancies in stimulation and these discrepancies are associated with distinct eye movements (Newsome et al., 2004:1784). Initially this appears to suggest that the LIP neurons are reacting in an indiscriminate way. Despite this, it is uncertain how exactly this apparent indiscriminate action develops in the whole neural chain of events and a psychological explanation of this has yet to be developed (Newsome et al., 2004:1784).

In Chapter Two, I described the Buridan's ass thought experiment which was used by Peter Olivi and John Duns Scotus to support the liberty of indifference libertarian idea of free will. The thought experiment describes a starving donkey which is equally far from to equally appealing piles of hay. The donkey starves to death since it has no basis to choose either pile of hay. Considering what I have discussed in this section it would appear as if the situation described by Olivi and Duns Scotus would not have occurred. Given the evidence presented here it seems clear that given the option of two seemingly equal choices animals tend to exhibit random behaviour. It seems apparent, from an evolutionary perspective, that natural selection would not favour or maintain an animal which behaved in a way described by Olivi and Duns Scotus.

How does this seeming indeterminism at the neural level relate to free will? Is it the same free will which moral philosophers are concerned with? These questions warrant further investigation and in the section which follows I look at the relationship of these findings to philosophical free will.

4.3.4. Is this Free Will?

It is sceptical whether indeterminism at the neural level constitutes authentic indeterminism. It can be argued that if one investigates the deeper processes at work, then the processes which govern those discussed are deterministic in nature.

A further consideration is with the type of free will which people want. It is not certain that the indeterminism of decisions which neuroscience describes is the type of free will which gives people control. It is challenging to work out how the process and mechanism described by neuroscience provides people with control. It is interesting to note that neuroscience speaks of indeterminacy as randomness. This framing of indeterminacy as randomness is also present in the game theory of neuroeconomics which describes randomness, and not control, as a winning feature of strategy.

Despite the concerns and issues with the findings of neuroscience, the findings are not evidence that we do not have control over our choices or that our choices are indeterminate.

As noted in Chapter Three, compatibilists often claim that for an action to be free it needs to be determined by a person's character. Considering the findings of neuroscience which I have discussed here, this claim becomes more immediate, especially when considering that evidence on neural activity appears to show that there is an element of randomness to some decision-making. A question which arises is to what degree are such decisions free?

4.4. The Neuroscience of Conscious Choice

In the 1960s German neuroscientists, Hans Kornhuber and Lüder Deecke (1965), investigated the connection between brain activity and deliberate motion (Deecke & Kornhuber, 1965; Moore, 2020:218). Participants in the experiment were instructed to flex their finger quickly at several moments throughout the experiment, however the participants could choose when they flexed their finger. The neuroscientists were interested in measuring the connection between this voluntary motion and the participant's brain activity (Deecke & Kornhuber, 1965; Moore, 2020:218). To measure this connection the investigators used an electroencephalogram (EEG) to measure the quantity of electrical activity in the brain and electromyogram (EMG) to measure the electrical activity of the muscles involved in the motion finger.

The investigators observed that in the motor area of the brain, that is, the top part of the head which governs movement, reliable patterns of electrical activity came before the measured electrical activity in the relevant muscles (Kornhuber & Deecke, 1965:15-17; 2012). This observed brain activity began less than a second before the activity in the muscles. It then steadily increased over the remainder of the one second (Kornhuber & Deecke, 1965:15-17; 2012). One interpretation of this observation is that the brain activity is an indication of the preparation for the deliberate flexing of the finger and has been called the readiness potential (RP) (Kornhuber & Deecke, 1965:15-17; 2012). The discovery of the readiness potential led to interesting research which sought to find a link between this neural activity and free will.

4.4.1. Benjamin Libet, the Readiness Potential, and Free Will

How does the readiness potential relate to a person's conscious choice to flex their finger and how does this relate to a person's free will? Benjamin Libet (1983)

attempted to answer these questions by expanding upon the findings of the neuroscientists of the 1960s. As with the earlier experiments, participants in Libet's tests were instructed to flex their wrists at whatever time they wanted during the experiment and both their brain and muscular activity were assessed using an EEG and EMG, respectively (Libet et al. 1983:625-626). Additionally, participants were instructed to observe a dot which was moving around a clock face. The clock face had the expected markings at the typical place, however the dot moved fast enough to complete a rotation of the clock face in approximately two and a half seconds (Libet et al. 1983:625-626). The participants were further instructed to note where the dot was on the clock face when they first became aware of a conscious desire to flex their wrist. After flexing their wrists, the participants reported the location of the dot when they first became aware of the desire to flex their wrist (Libet et al. 1983:625-626). With this data the investigators were able to establish the connection between the participants' conscious desire and when their muscles began to flex (Libet et al. 1983:625-626).

Measurements from 40 instances were collected from each participant (Libet et al. 1983:625-626). Many scientists had assumed that the conscious decision to act must take place before the readiness potential begins (Fifel, 2018). In Libet's tests, the readiness potential was measured at approximately 550 milliseconds before the muscle activity took place (Libet et al. 1983:625-626). The surprising thing was that his participants reported that they became consciously aware of their desire to flex at approximately 200 milliseconds before the muscle activity occurred (Fifel, 2018:784; Libet et al. 1983). Libet's results showed that participants became consciously aware of their desire to flex more than 300 milliseconds after the start of their brain activity. Libet interpreted this to mean that a person's brain unconsciously begins the process of voluntary action before they become consciously aware of their desire to act (Libet et al. 1983; Fifel, 2018:784-785).

Libet's findings have led many, like Wegner (2018:98), to believe that free will is indeed an illusion. Libet argued that a person has a brief period, approximately 100 milliseconds, in which they can exert conscious free will by interrupting the unconsciously made resolution which their brain has initiated (Libet et al. 1983; Fifel,

2018:784-785).[30] In this way Libet argues that his tests have assisted in locating where and how free will operates. In Libet's experiments the timing is important. The reported awareness of a conscious desire to flex takes place at approximately 200 milliseconds before the muscle activity. Libet notes that the finial 50 milliseconds inaccessible for a rejection of the brain's unconsciously made choice since the spinal nerves have already been initiated at that point and cannot be halted by higher brain functions (Libet et al. 1983; Fifel, 2018:784-785).

In another experiment Libet instructed participants to plan to flex their finger at a predetermined time and then veto the action at the last moment (Libet et al. 1983:625-626). Electrical activity in the participant's brains were measured. In this experiment and others which tested pre-planned actions a readiness potential did develop at about 1 second before the present time of action (Libet et al. 1983; Fifel, 2018:784-785). However, the action levelled out between 100 and 200 milliseconds before the present time of action. Libet suggests that in these cases the participants make use of their free will to reject the action at the last moment. Therefore, he argues that we do not have the free will to initiate an action, but we do have the free will to reject the initiated action (Libet et al. 1983; Fifel, 2018:784-785). Whether this ability to reject the initiated action is produced consciously or unconsciously is still open to debate.

Libet's findings and the suggestion that we have the free will to reject an initiated action, but not the free will to initiate the action is especially interesting. The value of Libet's findings cannot be denied, but his interpretation of the results has been questioned. The issues raised and interpretations offered have an impact on the free will debate.

4.4.2. Interpreting Libet's Findings and the Readiness Potential

Alfred Mele (2011) has suggested that there is an absence of conceptual clarity in Libet's interpretation of his findings. Mele argues that a distinction needs to be made between motivational states, such as urges and desires, and intentions (Mele,

[30] Libet's experiments have received a great deal of attention from a mind-body dualist perspective. Very detailed arguments have been made from various perspectives on this issue and it is beyond the scope of this paper to investigate them. However, it has been suggested, by thinkers such as William E. Skaggs, that although Libet's results are difficult to understand from the perspective of dualism, they are not only understandable but inevitable when looked at from an perspective outside of dualism.

2011:23-24). To illustrate what he means, Mele uses an example in which he wants to go to a movie with one friend and a lecture with another, but both events take place at the same time. He is unable to attend both events, so he decides to go to the movie and thus forms an intention to do one of the two things which he wanted to do (Mele, 2011:24). This distinction might at first glance appear small, but I believe that it has major implications for free will. If we consider the readiness potential as the display of an intention to flex the wrist, then Libet's findings could pose a challenge to free will. Working from Mele's interpretation of the readiness potential can be seen as a reflection of the unconscious desire or wanting to prepare to flex. Based in some part on this urge to flex an intention to flex can be formed (Mele, 2011:24).

Mele has suggested that this is possibly the best interpretation of Libet's veto experiments. He proposes that a person vetoes/rejects the desire to flex before an intention to flex is formed (Mele, 2011:28-29). Mele goes further to suggest that this line of thinking can be applied to Libet's earlier experiments as well and that the immediate intention to flex arises after the awareness of the desire to flex.

A question that has been raised is whether Libet's findings support epiphenomenalism (Dennett, 2004:242-245; Wegner, 2018). Epiphenomenalism is the point of view that mental events are caused by physical events in the brain although they have no effects upon any physical events (Robinson, 2019). Behaviour is produced by muscles that contract when they receive neural impulses, and neural impulses are produced by input from other neurons (Robinson, 2019). Libet's results create the prospect that some mental states do not cause anything (Wegner, 2018:50-51). Libet's findings do not illustrate that consciousness is immaterial to behaviour, and they do not demonstrate that consciousness is completely unrelated to decision-making (Dennett, 2004:242-245; Wegner, 2018:50-51). It appears apparent that we consciously make decisions, however Libet's results suggest that consciousness is not the guiding force behind decision-making. At the time that we become conscious of our decision, the decision has already been made. This means that the consciousness which we assume is behind our decision, occurs after the decision. In this way the consciousness is epiphenomenal in terms of the decision (Wegner, 2018:50-51).

Libet aimed to compare when people became aware of an intention to act and when the brain activity associated with facilitating the action began. Libet found that the brain activity began before the conscious awareness of the intention to act. His results have suggested that the actual decision to act is made subconsciously. This has the potential to challenge the opinion that people make conscious free decisions. Libet did suggest that there exists a short period in which a person could make a free decision to veto a subconscious decision to act before the action occurred. Despite the challenges to Libet's findings, his experiments have remained highly influential and insightful. A great deal of research on decision-making has been done in the field of psychology and perhaps some of the psychological findings might support Libet's interpretations.

4.5. Psychology and Free Will

Research in the field of psychology has produced some intriguing results regarding a person's decision-making. I have discussed evidence which suggests that there exist strong unconscious factors which influence decision-making. Some of the research, like that of Richard Nisbett and Timothy Wilson (1977), has suggested that people are mistaken as to which mental states cause their behaviour, others, like John Bargh (2000), have investigated unconscious triggers which may affect a person's decision-making, and others still, like Daniel Wegner (2018), have attempted to explain how people try to explain whether their mental state has caused a decision. What all these studies do indicate is that people do not know all there is to know about the factors which influence their decisions.

4.5.1. Telling More Than We Know

In a breakthrough article, Richard Nisbett and Timothy Wilson (1977) argued that people do not have the introspective power needed to investigate the causal processes which govern their behaviour. Nisbett and Wilson reviewed several studies to support this argument.

In one of the studies they reviewed, researchers informed participants that they would receive shocks of increasing intensity. The participants were instructed to try to tolerate the shocks as much as they were able before telling the experimenter to stop

(Nisbett & Wilson, 1977:237-239). Before beginning the shock test, the participants were given a placebo pill. Half of the participants were informed that that pill caused heart palpitations, irregular breathing, and butterflies in the stomach etc.. The participants were not told that these symptoms were natural reactions to the electric shock test. The experimenters predicted that the participants who received the pill would tolerate a greater amount of shock since they would attribute the symptoms of the shock to the pill (Nisbett & Wilson, 1977:237-239).

The idea was that the symptoms would be discounted and thus the participants would be able to tolerate a greater intensity of shock. The results showed this predication to be correct (Nisbett & Wilson, 1977:238-239). What is interesting to note is that the participants were not aware that their idea about the effect of the pill had any significant influence on their behaviour. When they were asked whether they thought that the pill had any effect on their behaviour many of the participants said no. Therefore, the participants possessed the conscious idea that the pill would produce the symptoms described, and this conscious idea had an influence on their behaviour (Nisbett & Wilson, 1977:238-239). However, they did not recognise that this conscious idea had such an influence.

Nisbett and Wilson also contended that at times people assign a causal role to beliefs/ideas that are causally irrelevant (Nisbett & Wilson, 1977). In another study, they asked participants how much shock they would be able to withstand in a test (Nisbett & Wilson, 1977:246). One group of participants was informed that the shocks would not cause any permanent damage, while the other group was not given any such guarantee. The participants in the former group revealed that the knowledge that the shocks would not cause any permanent damage influenced their judgment, however the results from the tests showed that it had absolutely no effect on the participants' behaviour. This result caused the researchers to propose that the causal procedure which translates a person's mental states into behaviour was not apparent to them (Nisbett & Wilson, 1977:246).

From these results Nisbett and Wilson (1977) argued that when an attempt to discover which mental states cause a decision then an implicit theory[31] should be used. As indicted in Chapter Two, free will sceptics often frame free will arguments around the idea that people are oblivious of the causes of their behaviour. It appears to me as if the psychological research supports this idea in so far as we sometimes appear to be unaware of what produces our behaviour.

4.5.2. Deterministic Decision-Making

In recent studies it has been argued that unconscious triggers may affect a person's decision-making, i.e., experiments were conducted where unconscious associations were triggered which then affected decisions.

John Bargh (2000) conducted a number of interesting experiments. In one study Bargh had participants work on a scrambled sentence task. The purpose of this task was to expose the participants to words which would then trigger specific unconscious associations and typecasts (Bargh & Ferguson, 2000:929-930). What was found was that the unconscious associations changed the discernible behaviour of the participants (Bargh & Ferguson, 2000:930,941). During one of the experiments conducted participants were subjected to words which were associated with the elderly. After the experiment it was noted that the participants moved more slowly to the elevator. Another experiment subjected participants to words which were associated with rudeness. It was noted that these participants were far more likely to interrupt the researcher than the participants who had been subjected to words associated with politeness (Bargh & Ferguson, 2000:930).

Since these findings show that many mental processes occur beyond conscious choice, they have been welcomed by some as positive proof of determinism. Although the results do show that certain unconscious processes have an influence on a person's decisions in ways which we were not previously aware, I do not think that this necessarily means that a person's decisions are determined. As discussed in Chapters Two and Three, libertarians usually allow for the existence of factors which

[31] Implicit theories are a priori beliefs about the features and properties of objects, including humans (Plaks, 2017:259).

are not within a person's control which limit their choices. Despite the psychological research discovering previously unknown factors which limit our control, libertarians might well count these factors among the already existing pool of limiting factors. I would further argue that libertarians might well concede that some of a person's choices are determined, since they argue that only certain choices, such as moral choices, are truly free.

John Bargh and his team were able to show that a person's unconscious associations influenced their behaviour. These findings again raise some questions. Can thoughts be a cause of action? What impact would thoughts as a cause of action have on free will?

4.5.3. Thoughts as a Cause of Action

Daniel Wegner (2018) has developed the idea that when evaluating whether a specific thought causes an action an implicit theory should be used. Wegner has argued that, despite perceiving their free choices, people make use of three principles to evaluate whether their thoughts have caused their actions. He suggests that a person typically believes that their thought has caused their action when (1) the action is coherent with the thought, (2) they see no alternative source for action, and (3) they become cognisant of the thought the moment prior to the action (Wegner, 2018:152-155). Wegner has suggested that the mistakes which people make under experiment conditions reveal how each of these three principles function.

Wegner's (1999) "I Spy" experiment is the best example for this argument. Wegner designed an experiment based on the Ouija-board style of movement. Two players moved a platter which was attached to a mouse (Wegner & Wheatley, 1999:487). Their movement was displayed by a pointer on a computer screen which was filled with items. The participant did not know that the other player was working for and aiding the researcher. The players were told to stop moving the mouse approximately every 30 seconds and then to show independently the extent to which they had intentionally stopped the mouse. Both players wore headphones and were told that they would hear music and words in the background. However, the player assisting the researcher actually listened to instructions telling them which objects to stop on and when (Wegner & Wheatley, 1999:488). The participant would hear a word, such

as swan, which was consistent with the instruction which the assistant would receive, such as stop near an image of a swan. However, the word would occur at different times in different instances (Wegner & Wheatley, 1999:488). It was noticed that the participants indicated to a greater degree that they intentionally stopped the pointer when they heard the name of an object 5 seconds before stopping, but the same was not true when they heard the name of the object 30 seconds before stopping. This outcome was accurately predicted by Wegner's theory.

It has been suggested that this means that a person's thoughts do not cause their actions at all and that the idea that thoughts cause actions is an illusion. This point of view appears extreme to me, and I suggest that our thoughts do often cause our actions even though we occasionally make errors.

4.6. Conclusion

This chapter has been concerned with investigating what findings from experimental philosophy in the fields of folk morality, neuroscience, physics, and psychology can tell us about determinism and free will.

The first section of this chapter investigated folk intuitions on free will and choice. Specific attention was focused on the work by Shaun Nichols. Nichols' work which showed that a person's ordinary perception of physical events tends to be deterministic, and their ordinary perception of moral events tends to be indeterministic has some interesting implications for the free will debate. The mixed nature of people's intuitions was also discussed and along with several criticisms of Nichols' ideas. The question of the source of people's mixed intuitions about free will and choice led to the investigation of whether there is anything in the science of physics which can support or account for these intuitions in the physical world.

I then investigated what impact the work of recent physics has on free will and determinism. Since quantum mechanics is the dominant theory concerning the motion of physical objects, it was discussed in some detail. Some philosophers have investigated the indeterministic accounts of quantum mechanics as possibly offering

new avenues for free will to exist. However, establishing how exactly the indeterministic movement of basic physical objects supports free will has been hard to come by and attempts to establish such a link have been heavily criticised.

In the third section, I looked at experiments in neuroscience which have been influenced by the notion that indeterministic behaviour in animals is a result of evolutionary adaptation. The observations of naturalists have suggested that sometimes it is optimal for an animal to behave in unpredictable ways. It has been suggested that animals have evolved in ways which specifically allow them to behave indeterministically. This has been supported by the theoretical findings of game theory and by the empirical findings of research on animal behaviour. It has been shown that when competing with others, animals do indeed behave unpredictably. Additionally, research on neural activity has shown that a neuron does sometimes respond in random ways when it has received the same input at different times. I questioned how these findings can impact on free will and noted that indeterminism at the neural level may not be sufficient to claim the presence of authentic indeterminism. I also argued that the randomness which neuroeconomics refers to as indeterminism appears different from the control which is often associated with free will in the free will debate.

To expand on the content, section four looked at the work done in neuroscientific research which investigated conscious choice by participant's brain activity and related intentional actions. I focused on the landmark studies of Benjamin Libet, which concerned establishing when people became aware of an intention to act and when the neural activity associated with the intention to act was initiated. I investigated some of the interpretations of these findings and noted that an important distinction needs to be drawn between motivational states, such as desires, and intentions. I agreed with Alfred Mele in that the best interpretation of Libet's work was that the readiness potential was a reflection of a person's unconscious desire to act.

In the final section of this chapter, I considered some of the psychological research on free will. I showed that there exist powerful unconscious influences on a person's decision-making. Looking at the work of John Bargh, it was clear that a person's unconscious associations influence their behaviour, which raised some interesting questions about whether thoughts can cause actions.

The investigation of all these various findings and experimental insights provides new avenues for the free will debate. They call into question some of the philosophically held positions and raise new questions that need answering. The greatest contribution to the free will debate which all these various findings illustrates is that it would be difficult, if not impossible, to adopt a monist or reductionist approach to free will. With such a plurality of experimental data and conflicting findings it seems clear that an approach of a wider and more pluralist nature is needed to accommodate all the contrasting findings. This implication also allows me to move onto developing such a pluralist approach in the next chapter.

Chapter Five:
Towards A Pluralist Approach to The Free Will Problem

My aim in the preceding chapters has been to expose the dialectical impasse which exists between the various free will positions, by exploring and investigating free will related evidence from various disciplines, such as physics, neuroscience, folk morality, and psychology. I began this undertaking by examining the philosophical, psychological, and empirical landscape related to the free will debate; by investigating the ordinary normative way in which people consider morality in their daily lives; by evaluating the significance of the new insights from experimental philosophy and moral psychology in resolving the problem of free will; and by utilising empirical findings and ordinary moral practices to establish greater clarity on the free will debate. In the process I set out the evolution of the free will debate, described the complexity and dialectical impasse within the philosophical landscape, and investigated experimental and empirical findings.

In this chapter, the preceding investigations shall serve as a foundation upon which to anchor my proposal for adopting a pluralist approach to the problem of free will. I will begin by describing the nature and value of pluralism. I argue that a pluralist approach makes room for discontinuities, accounts for conflicting free will values and regret, and acknowledges dissimilar responses to moral responsibility situations. In presenting this pluralist account and its implications, I will also highlight potential objections and responses to the approach. I will then conclude by looking at future possibilities and potential research avenues.

5.1. The Nature and Value of Pluralism

The term “pluralism” has come to be used in many different fields, such as political philosophy, metaphysics, ethics etc., assuming different roles in each. This ubiquity makes pinning down a generally applicable definition challenging. However pluralism in philosophy can be said to be the position that reality is comprised of many distinct things or groups of things (Honderich, 2005:618). Put another way, it is the position that there exists more than one basic substance or principle. In this sense, pluralism

can be said to stand in direct opposition to monism[32] and can be contrasted with dualism[33]. The term is also used in a broader sense in various fields of philosophy, to convey the notion that there can be no solitary explanatory scheme, or interpretation of reality that can elucidate the entirety of life; or that there are numerous dissimilar conceivable perspectives or positions of equivalent legitimacy and importance (Archard, 1996:1). In this chapter, I employ pluralism in this second sense to denote the presence of different, and at times competing, explanatory methods and perspectives on the problem of free will.

If the various positions and findings which I have presented in the previous chapters convey anything at all, it is that the free will debate is highly complex and comprised of several apparent contradictions. A cursory look at the evolution of the concepts of free will and determinism, the various arguments, counterarguments, complex adjustments to arguments, the variety of sources of empirical research, and new insights that I presented illustrate the complexity of the debate. This reality opens itself to a pluralist account of free will and moral responsibility capable of accommodating this complexity and apparent contradiction. A pluralist account also makes room for discontinuities, accounting for conflicting free will values and regret, and acknowledging dissimilar responses to moral responsibility situations.

5.1.1. Room for Discontinuities

With complexity often comes discontinuity where there is a gap in a continuous series of events, or two or more types of a thing are measured on different scales. Take for example Mill's[34] concept of higher and lower pleasures. The division between higher and lower pleasures permits us to say that no number of lower pleasures can offset some number of higher pleasures. Mill (2002) makes the point that it is more desirable

[32] Although the concept of monism dates to the Pre-Socratic philosophers, the term "monism" was popularised by Christian Wolff to identify philosophical positions which state either that everything is mental (idealism) or that everything is material (materialism), to eradicate the dichotomy of mind and body. The concept has been more generally applied today, providing that all of reality is ultimately one and inseparable. (Honderich, 2005:618)

[33] The term "dualism" can be used for any notion according to which two bodies, properties or kinds of facts are granted equal importance. That is to say that neither is thought of as completely reducible or understandable in terms of the other. (Honderich, 2005:221)

[34] There is disagreement and debate over whether Mill was a pluralist or whether he intended his conception of higher and lower pleasures as foundational plural values. Engaging with this debate is outside of the scope of this dissertation. I use his example of higher and lower pleasures only to illustrate the existence of discontinuities in the attribution of value.

to be a miserable human being than a happy pig. What the distinctions between higher and lower pleasures illustrates is that there exists a discontinuity between the attribution of value. A similar example of discontinuities in attribution of value or judgment can be seen in Nichols & Knobe's (2007:13) findings that folk intuitions on the deterministic or indeterministic nature of choice are varied. In Chapter Four, I describe how participants presented with a universe which was deterministic and asked, in an abstract manner, whether a person can be morally responsible in such a universe were inclined to take the incompatibilist view that people cannot be morally responsible. However, when asked, in an emotionally prompted manner (e.g., the killing of one's own family), if a person could be morally responsible, the participants responded with the compatibilist view that they could.

The occurrence of discontinuities in a person's value assignment of blame attribution appears to provide for pluralism: if moral questions of blame asked in an emotionally promoted manner are not overshadowed by such questions asked in an abstract manner, that implies that they are perhaps not the same kind of thing. If they were simply the equivalent kind of thing, there appears to be no reason why one will not sooner or later offset the other.

5.1.2. Conflicting Free Will Values and Rational Regret

Regret is an important feature of free will and moral responsibility. Nearly all people, at some time or the other, have feelings of regret. These feelings generally occur when a person considers that they should have done otherwise (Burks, 1946:170). This consideration is clearly reliant upon the notion of free will (Kane, 2005:4). When we freely choose the wrong thing, then we generally believe that we should regret our choice and accept blame for our choice (Burks, 1946:170). This freedom to choose appears to be incompatible with determinism. Justifying regret is a problem for determinism. If a person's actions are ultimately determined, then there can be no rational reason for regret, because no other choice could have been made.

Thinkers, such as Michael Stocker (1992), have argued that regret can be rationally supported. Many of the arguments for regret have focused upon regretting the outcome of an appropriate moral decision, however I believe that the essence of the arguments used can be extended to regret in the free will debate more generally.

Stocker and others have argued that even when a correct decision has been made, the choice not made can be reasonably regretted. In this way, the choice made involves a genuine value conflict. Value conflict arises when a person supports or considers as personally significant values that have conflicting consequences for an opinion on an issue, and these conflicting consequences draw the person in distinct directions at the same instances (Hsieh & Andersson, 2021). Having regret for choosing more rather than less of the same kind of thing seems strange, however, it unquestionably appears to happen. Pluralism may help to address such oddities. The argument is that if values are plural, then a person can reasonably regret having not chosen the thing which was lesser since it was different.

It must be mentioned that pluralism does not suggest that all situations which involve a value conflict are pluralist. Stocker identifies two cases of value conflict that he argues necessitates plural values. The first of these are situations where there is a conflict between doing things at distinct times, for instance, if I am at dinner and a sip of wine is left, I could wonder whether to drink it now or for dessert, and the second are situations where there is a conflict between factors that have varying benefits and drawbacks. It is these latter situations that I am concerned with and argue fit well within the free will debate. I have in mind empirical research, such as Harper's (1982), which looked at the notion that an ability to behave unpredictably could evolve in a species if it provided some evolutionary advantage. I also believe that the Buridan's ass thought experiment which was used by Olivi and Duns Scotus to support the liberty of indifference libertarian idea of free will could benefit from this argument.

5.1.3. Explaining Dissimilar Moral Responses

As noted in Chapter Three, with a discussion of Tamler Sommers' (2017) work, there exist many diverse responses to moral values and situations. I illustrated this point by discussing Sommers' (2017) argument that in institutional cultures, a person's moral responsibility is determined by appeal to the person's control, intention, and freedom of action, while, in certain honour cultures, holding someone morally responsible for an action which they did not have control over, and which did not represent their intention is acceptable. Diverse responses to moral situations such as these have led many thinkers, such as Sommers, to conclude that human cultures are composed of

logically unworkable disputes about responsibility (Sommers, 2017:1-3). I would argue that a possible solution to these disputes could be found in pluralism.

Christine Swanton (2005:41) notes that "[a]ccording to value centered monism, the rightness of moral responsiveness is determined entirely by degree or strength of value…I shall argue, on the contrary, that just how things are to be pursued, nurtured, respected, loved, preserved, protected, and so forth may often depend on further general features of those things, and their relations to other things, particularly the moral agent." The central point which Swanton is making is that there are numerous foundations from which to base moral responses and that these foundations are irreducibly pluralist.

Elizabeth Anderson (1997) echoes supporting sentiments when she notes that it is possible to make reasonable selections between differing values without rating the values. She notes that "…choices concerning those goods or their continued existence do not generally require that we rank their values on a common scale and choose the more valuable good; they require that we give each good its due" (Anderson, 1997:104).

5.2. A Pluralist Account of Free Will and Moral Responsibility

"The supreme goal of all theory is to make the irreducible basic elements as simple and as few as possible without having to surrender the adequate representation of a single datum of experience." ~ Albert Einstein (1934:165)

"It is my argument that we should be free to avail ourselves of the resources of many disciplines to define that vision; and that in bringing them together we are being faithful to a long tradition" ~ Kwame Anthony Appiah (2008:1)

Having highlighted that a pluralist approach makes room for discontinuities, accounts for conflicting free will values and regret, and acknowledges dissimilar responses to moral responsibility situations, I will now turn my attention to presenting a pluralist account of the free will problem, which considering the empirical evidence discussed

in Chapter Four, is a feasible means of resolving some of the dialectical impasse established in Chapter Three. I will begin by engaging with free will research from moral psychology, then I will investigate the findings of the sciences, such as neuroscience and physics, and finally, I will consider our common-sense understanding of free will.

5.2.1. Moral Psychology

Considering some of the empirical evidence, it seems clear that emotion appears to play an important role in forming moral judgements about moral responsibility, that the apparent pattern of these judgments can be understood through moral rules, and that these moral rules about free will and moral responsibility are pluralist in nature. In what follows, I will show how this is the case by referring to various findings of empirical evidence as well as showing how this aligns with some of the philosophical positions advanced in earlier chapters.

In Chapter Four, I described an experiment (Nichols & Knobe, 2007:6) where children were presented with physical events, e.g., boiling water, and moral choices, e.g., stealing candy. When asked if the event had to happen if everything had been the same up until the event occurs the children were more inclined to say that the physical event had to happen, and the moral choice did not. Similarly, children's responses to moral intrusions, such as uncalled-for hitting, varied considerably from their responses to breaches of classroom rules (Blair, 1997). Children deemed hitting to be more wrong than chatting in class. Generally, children indicated that hitting would be wrong even without a rule prohibiting it, but they were less likely to say the same regarding chatting in class. The children typically justified their response by saying that hitting was wrong because it hurt the other person. Making such distinctions may not be remarkable, but what is important to note for the purposes of my argument is that emotions play an important role in the forming of moral judgments regarding moral responsibility.

The importance of emotions in the assignment of moral responsibility was further demonstrated by the experiment described above and presented in Chapter Four which showed that people unaffected by emotional prompts are inclined to

incompatibilist intuitions, while those subject to emotional triggers are inclined to compatibilist intuitions about free will (Nichols & Knobe, 2007:10-13).

I suggest that the role of emotion in the free will debate and the attribution of moral responsibility fits very well with Strawson's (2008) notion of reactive attitudes. I described Strawson as attempting to show that there was a great deal more involved in clearing someone of responsibility for an action than a simple objective evaluation that they did not act or did not have an intention to act. That is to say that holding someone to be cleared of responsibility for an action involved the suspension of the morally reactive attitude that involved emotional responses. Such a suspension was not possible since morally reactive attitudes are a natural feature of social life and are intricately linked to moral responsibility.

What all this illustrates is that emotions play an important role in moral judgments and moral responsibility. However, I would argue that the assignment of moral responsibility and the generation of a moral judgement is more than simply the triggering of an emotion. There appear to be internalised regulations which coupled with emotional responses guide moral judgements.

I hold that the presence of these internalised regulations could explain why people assign different responsibility to the different forms of the same kind of moral action. For example, why our assignment of blame for killing is different in cases of murder and cases of self-defence. In both cases, one person has killed another, however, the assignment of responsibility is often different. I argue that despite people having similar early emotional responses to both forms of killing, they have internalised a rule in opposition to one type of killing but not the other. I believe that this appeal to internalised regulations can also assist in explaining differences in the attribution of moral responsibility across cultures. Such internalised rules could account for Sommers' (2017:33-36) observations regarding the differences in moral responsibility between institutional cultures and honour cultures.[35]

[35] See Section 3.3.4.

I would argue that a further advantage of believing that internalised rules for moral responsibility exist allows us to account for the results of game theory in neuroeconomics (Glimcher, 2003) and "hawks and doves" game[36] (Smith, 1982:11-13). Both examples illustrate how humans, and animals, learn from their interactions with others and adjust their subsequent behaviour to respond to the actions of others. This is especially true in cases of competition between individuals or groups. I believe that this adjustment of behaviour to the actions of others is an illustration of the formation of an internalised rule, based on an emotional response to the other's actions, which guide future behaviour. I argue that this would work in the same way with the assignment of moral responsibility.

I hold that John Bargh's (2000) experiments which show that unconscious triggers may affect a person's decision-making could be applied to this account of emotion and rule based moral responsibility. As described in Chapter Four, Bargh & Ferguson (2000:929-930) exposed participants to words that would then trigger specific unconscious associations and typecasts. What was found was that the unconscious associations changed the discernible behaviour of the participants. I believe that something similar is occurring with moral responsibility and internalised rules that, when triggered, cause people to behave differently towards different kinds of the same moral violations.

Having demonstrated that moral judgments and moral responsibility are heavily influenced by emotions and internalised rules, I will now show that there is a plurality of internalised rules to moral responsibility which argues for a pluralist account of free will.

If it is correct that we base our moral judgments upon rules which are informed by emotions, then it seems apparent that our rules and subsequent judgments are in some way causally linked to our emotional responses. It seems unlikely to me that we would have formed internalised rules if we did not possess those emotional responses. Furthermore, we possess a plurality of emotions, e.g., betrayal, love, anger etc. Thus, I suggest that a plurality of rules regarding moral judgements and thus behaviours

[36] See Section 4.3.1.

should also exist. This conception of rules and emotions as they relate to moral judgments appear to be supported by recent work by Rozin and colleagues (Rozin, Lowery, Imada & Haidt, 1999) and Cendri Hutcherson and James Gross (2011).

I argue that a person's inability to adequately justify why they have different moral responses to different moral situations can be explained by the pluralist account of moral responsibility which I have described thus far. If people have a plurality of moral rules based on a plurality of emotions and if such rules were independent of each other, then there would be no overarching moral rule which would unify all moral judgements. In the absence of such an overarching rule, it is easier to accommodate differences in moral judgements, differences in the attribution of responsibility, and the lack of a conscious ability to justify these judgments and attributions.

In this section, I have sketched a pluralist account of moral judgment and responsibility from the view of moral psychology by highlighting the importance of emotions to our moral responses, how these emotions are linked to internalised rules, and how there are a plurality of these moral rules.

5.2.2. The Science of Free Will

As I showed in Chapter Four, there is an intuitive sense that a person has the capacity to choose and control their own actions and that this is free will. Nevertheless, free will sceptics argue that a person's actions are not the product of conscious choices but are instigated by physical processes in the brain and body over which a person has no control. They conceive of human beings as little more than intricate physical systems. Thus, they argue that free will is a relic from an outdated conception of the world that science has disproved. Such a rejection of free will would have significant implications for human understanding of themselves and their interactions with each other and the world. This is why empirical research connected to free will and moral responsibility is and has become so vital. How could a person blame and punish another for something they did not do by their own free will? For instance, when someone is hurt due to an earthquake, it would seem unreasonable to blame the earthquake in the same way that a person would be blamed for hurting another. The earthquake is not considered a moral agent with moral responsibility. If the free will sceptics are correct, then in both human-to-human harm and the earthquake-to-

human harm, the harm results from physical systems contained within physical participles, such as atoms. This result appears unreasonable and a good reason to think that there is a problem with the reduction of all things to physical terms.

Partly based on the empirical research which I have presented in this dissertation, I argue that the free will sceptics are mistaken and that rather than rejecting free will, science has presented arguments in support of free will, which are pluralist in nature. I will show that a rejection of free will is a mistake and that the empirical evidence supports free will and encourages a pluralist understanding of the free will problem. I will also show how the assumption that human beings are intentional agents is supported by empirical findings.

The arguments of free will scepticism appear, to me, to be reductionist in nature. They reduce many things, if not all, to physical systems. Indeed, suppose I take the perspective of viewing the universe from a purely fundamental physics position. In that case, the universe seems solely governed by physical systems with no room for human agency, chance, randomness, or free will. The problem is that we do not view the universe purely from this perspective. Science itself, specifically the sciences concerned with human behaviour, does not reduce human action to purely physical properties. For example, psychology conceives of people as purposeful agents with an ability to make selections and respond reasonably to their surroundings (Bandura. 1982:122,129). The treatment of people as intentional agents capable of making choices can be illustrated by looking at the experiments, in neuroeconomics, of Glimcher (2003) and John Maynard Smith (1982), which treated participants as deliberate agents who reacted appropriately to their changing environments and situations. What is important to note is that to understand human behaviour and action, it is necessary to conceive of people as decision-making agents.

A sense of intentional agency and choice is necessary to answer questions about human actions. Why does a person order a cup of coffee? Why does a person react negatively to the wrongdoing of others and adjust their behaviour accordingly? Why do students' study before an exam? These questions can more readily and intelligibly be answered with reference to the actors looking through various options and reasonably choosing one. Reducing such actions to the physical workings of a

physical machine would be to ignore all the goal-directed, intentional aspects of human action. It seems that physics and neuroscience are invaluable to understanding free will and moral responsibility, but I do not see it as reasonable to expect them to explain free will and moral responsibility in its entirety. These fields are vital to understanding these concepts, but they are only a part of a plurality of explanation.

There is, however, an obvious objection to my insistence that we must conceive of human begins as intentional agents, with choice-making abilities. The objection is that I am presupposing that human beings are intentional agents, with choice-making abilities with regards to free will and moral responsibility. Although this is true, it is also true that such a presupposition is made by most fields that study human behaviour. The reason this is acceptable is the same reason that science generally accepted the reality of atoms before they were directly observable (Cercignani, 1998). Intentionality and choice are indispensable elements needed for explaining human free will and atoms are an indispensable element needed for explaining physical occurrences.

I maintain that relying upon the presupposition that people are intentional agents and have decision-making ability can be justified since, firstly, it seems necessary to make these assumptions since they are indispensable, at least until proven otherwise, to the explanation of human action by the human behavioural sciences, secondly, modern empirical research has introduced the possibility of indeterminism and randomness, and finally, that there appears to be empirical evidence to support the idea that the physical world can be described differently on different levels, e.g. micro-level and macro-level.

Having argued for a pluralist approach to free will and moral responsibility in the sciences over a reductionist approach, I now turn my attention to linking the three reasons mentioned in the previous paragraph and explaining them in more depth.

Firstly, it appears clear to me that conceiving of people, and even some animals, as intentional agents with the capacity for decision-making is indispensable to the explanation of human action by the human behavioural sciences. One need merely look at the work in the behavioural sciences to see that this has been presumed. Take for example, John Maynard Smith’s (1982) experiments which argued that when a

skirmish ensues between two animals, then each animal can either fight (hawk) or retreat (dove). Smith showed that in situations where both the costs of fighting and retreating were high, it was more beneficial for the animal to adopt an unpredictable tactic. What Smith assumed in this experiment is that the subjects are intentional agents and have the capacity to make choices. The same presupposition can be seen in the ultimatum game from game theory (Glimcher, 2003). The traditional approach to economic theory concentrated on which decision an individual should make given the available facts. In the ultimatum game one participant, the proposer, is given a quantity of money to share with another participant, the responder. If the responder accepts the offer, both participants get to keep the money; however, if the responder rejects the offer, neither gets any money. Even the famous experiments of Benjamin Libet (1983) assumed that people were intentional agents with the capability for choosing. I am not arguing that all of this resolves the problem of free will, since there is empirical evidence which has returned deterministic results. These contrasting results need to be accounted for and it would be remiss to ignore them. What I am arguing is that there is good reason and evidence to support the view that human beings are intentional agents with the ability to choose. Human intentionality and ability to choose need to be accounted for alongside the elements of determinism, which is best done with a pluralist account of free will.

The second point I made is that modern empirical research has introduced the possibility of indeterminism and randomness is a little more subtle and complicated and requires an inspection of evidence from various disciplines, such as physics, economics, and neuroscience. Even though quantum mechanics has introduced the possibility of indeterminism and randomness into the field of physics, there is still considerable doubt as to whether any more advanced future research will maintain this possibility or not. I raised this concern in Chapter Four. The available evidence strongly supports quantum mechanics as a predictive theory, and I do believe that the possibility of indeterminism and randomness which it confers are valuable insights for the free will debate. However, I must acknowledge that to predicate an approach to free will solely upon the findings of quantum mechanics would be foolish.

What is encouraging is that quantum mechanics is not alone among the sciences in introducing the possibility of indeterminism and randomness. Observation and

consideration of animal's behaviour has shown that at certain times it would be beneficial for an animal to act in an unpredictable, indeterministic, fashion. Evolutionary theorists have suggested that the frequent occurrence of situations which would benefit from unpredictability could have caused certain animals to develop the facility for such indeterminate actions. As mentioned previously, from the predictions of ultimatum game, the hawk and dove game, by Glimcher, it appears that if the ability to behave unpredictably could be advantageous. It makes sense to me that if such an ability would be advantageous then it would be favoured from an evolutionary perspective. This suggestion has found support in evidence that shows that animals behave indeterministically when faced with a competitor. An example of this comes from the classic experiment conducted by David George Charles Harper (1982) which looked at the notion that an ability to behave unpredictably could evolve in a species if it provided some evolutionary advantage. A further example is Michael Platt's (2004) experiments which found monkeys, when rewarded for behaving unpredictably in a game, were excellent at this game and that in certain important ways, they acted in ways that mirrored the actions of people in similar games. Additionally, inquiry on neural activity has found that when receiving the same input on different instances, a neuron occasionally reacts in apparently indiscriminate ways. This was illustrated by a series of experiments by William T. Newsome (2004), which investigated and assessed what occurs to neurons in the middle temporal (MT) area of the brain and neurons in the lateral intraparietal (LIP) area of the brain during the tests. The experiments appear to suggest that the LIP neurons react indiscriminately.

Finally, there appears to be empirical evidence to support the idea that different levels of description of the physical world exist. I argue, and the point has been shared by others such as Jeremy Butterfield (2012) and Christian List (2017), that physical laws which are deterministic do not prevent divergences on the route within human agency. A person's potential decisions can be available at one level, such as the psychological level, at the same time as the fundamental physical laws are deterministic. The point I am making here is that the discrepancy between determinism and indeterminism cannot be made autonomously of the level of description at which the universe is being viewed. A process can act in determinist ways at one level, such as the microphysical level, and indeterministically at another level, such as the psychological level.

I believe this notion of levels of description goes a long way to accounting for and accommodating the plurality of empirical research which appear to conflict with each other. With these levels of description in mind it seems plausible to accept the indeterminism of quantum mechanics, the randomness or unpredictability of game theory and neuroeconomics, the indeterministic findings of neuroscience and evolutionary theory, as well as the deterministic decision-making process of psychology as all existing within the same system but operating at different levels.

Jeremy Butterfield (2012) and others have described this notion by arguing that a system's micro- and macro-dynamics do not need to be sympatico or in agreement. The sciences provide us with the means to demonstrate that divergent routes within the process of a person's decision-making can coincide with deterministic empirical findings.

In this section, I considered the empirical evidence from neuroscience, physics, and evolutionary theory to show that rejecting free will was a mistake, that science supported the notion of free will and that people could be presumed to be intentional agents with decision-making abilities. I now turn to consider the findings of folk morality and our common-sense conceptions of free will and moral responsibility.

5.2.3. Considering Common-Sense[37]

From the earlier chapters and preceding sections, it would seem that there are good reasons to believe that elements of common-sense are incompatibilist in so much as common-sense is possessed of features which cannot be accommodated in a universe which is purely deterministic. Looked at in isolation the evidence is not conclusive, but when examined together the philosophical, folk, and empirical evidence appears to support an incompatibilist understanding of elements of our common-sense approach to free will and moral responsibility.

A popular argument for incompatibilism is Peter van Inwagen's (1983) Consequence Argument (CA). The fundamental idea behind his argument is that if determinism and

[37] I am making use of the term "common-sense" in its ethical form to refer to the pre-theoretical moral judgments of ordinary people.

the laws of nature and past are fixed then there is only one course of action open to the world (Huemer, 2000; Ekstrom, 1998:335). Therefore, if a person wanted to do otherwise in a deterministic world, then they would need to either change the laws of nature or the past (Ekstrom, 1998:335). Since, changing the laws of nature or the past does not appear possible a person in a deterministic world could not have the ability to do otherwise. What this means is that if determinism is true then we lack the ability to do otherwise. The coupling of the ability to do otherwise with the concepts of free will and moral responsibility forms the prevailing approach to incompatibilism. I illustrated that the theoretical free will landscape is at a deadlock, which needs new insight. I have argued that this new insight can be found by adopting a pluralist approach to free will which allows for investigation into empirical research. Attempting to fully defend against the numerous challenges is beyond the scope of this section, therefore I am focusing specific features of the CA rather than the argument itself.

An important feature of the CA for incompatibilism is that it appears to reflect the ways in which people tend to think about their own agency and freedom. To illustrate the importance of this point, consider the criticism that the CA and its offshoots appear unpersuasive when focus is given to antecedent compatibilist understanding of the ability to change the past or the laws of nature. If this criticism is correct, then the CA could not dismiss the likelihood of compatibilism. At first glance this would look like a dialectical impasse between the two ideas, however the picture is different when we consider CA's reflection of ordinary understanding of free will. Even if the CA cannot dismiss a compatibilist understanding, the way in which CA reflects ordinary thinking about common-sense is a strong hint that such issues be considered, at least sometimes, from an incompatibilist perspective. Although this understanding of incompatibilism is limited it does generate a significant question for the idea of the ability to do otherwise which is relevant to the free will debate. It also appears to charge compatibilists with the role of showing that their line of reasoning provides better conceptions of a person's intuitions which are compatibilist.

If one assumes that the mind is different from the physical world, then it makes sense to believe that the concept of free will is not subject to physical laws. When considering the study of decision-making and the idea of free will as not governed by physical laws, a libertarian conception of free will appears reasonable.

Considering the influence of Christianity on the free will debate, discussed in Chapter Two, it appears plausible to say that dualism was an important notion. Libertarianism was an important tool used by many Christian thinkers to explain how evil could persist in the presence of a loving, omnipotent, and omniscient God. With the existence of libertarian free will, Christian thinkers can explain how evil, which God can prevent, exists in the world. There are various schools of Christian and philosophical thought that do not follow this thread, but that does not diminish the reality that a wide historical network of ideas supports a libertarian notion of freedom and agency.

I believe that it is clear, at least in the Western tradition, that our conceptions of agency and freedom have been influenced, at least in part, by our long philosophical tradition and our cultural history rooted in Western Christian belief.[38] Even if our societies were to move away from such traditions and beliefs, I do not think that their influence should be underappreciated.

From the foregoing, the conventional philosophical positions appear to support an incompatibilist and alternative possibilities understanding of the common-sense necessities for free will and moral responsibility. Looking at the experimental data from neuroscience, physics, and psychology, it appears that there is strong evidence to support the claim that common-sense thinking about free will is incompatibilist in some of its elements. Since, the experimental data appears to advocate that a person's common-sense understanding of free will has incompatibilist features, its potential to shed light on the philosophical arguments should not be underestimated.

In my view, the study by Nichols and Knobe (2007) described in Chapter Four provides strong evidence that our ordinary understanding of our own agency and freedom is incompatibilist. There is no doubt therefore that a pluralist account is especially helpful in accounting for conflicting moral values and dissimilar moral responses.

[38] I refer here specifically to the Western philosophical and religious tradition, although I believe that the same arguments made can apply to various traditions around the world. For example, in Chapter Two, I briefly discussed the evolution of the notion of free will in the Indian spiritual tradition and showed the importance of such tradition on people's ordinary common-sense conceptions of free will.

Empirical evidence has found that there are in existence mixed common-sense intuitions about free will and that two conclusions can be drawn from the evidence.

Firstly, given what has been argued in the preceding sections, an argument can be made that a person's ordinary understanding of free will and responsibility are not consistent. With this being the case, it can be taken as a boost for a pluralist account of free will and I suggest that incompatibilism can account for these mixed intuitions. As Incompatibilism does not deny that there exists occasions when people make use of compatibilist thinking about freedom. What is important is that incompatibilism holds that a person's attributions of free will and responsibility are incompatible with determinism being true in certain significant senses. In that case, the experimental data shows that at times of cool-headed abstract consideration, people tend to support the notion that alternative possibilities are needed for moral responsibility. With this in mind, I argue that the experimental data supports an incompatibilist reading of our common-sense thinking about free will and that a pluralist reading of free will is needed to accommodate our mixed intuitions about free will.

Secondly, it could be argued that the experimental data shows the difference between authentic theoretical conceptions about free will and responsibility and the pragmatic reality of holding a person responsible for their actions. For instance, consider the legal doctrine of *mens rea*. *Mens rea* is the mental element of a person's intention to perpetrate a crime; or the understanding that a person's action or lack of action would result in a crime being perpetrated (Lanius, 2019:113). It is a required component of many offenses. Experimental research has shown that in situations where questions of praise or blame are not in play, then people react in clearly incompatibilist ways. However, when questions of praise or blame are asked practical considerations regarding holding people responsible become relevant. I believe that the observations of Manuel Vargas (2006) and Eddy Nahmias (2006) described a study in which participants were more reluctant to assign responsibility when a behaviour was described in physical terms rather than psychological terms point in this direction.

In general, therefore, there exists reasonable practical reasons to assume that people are responsible agents, unless otherwise shown to be and exceedingly convincing reasons would need to exist for responsibility to not be assigned to a person. The

compatibilist evaluations reflect the practical considerations that arise from a social practice founded on a need to quickly reply to harm.

Irrespective of the reason for mixed intuitions about free will, the evidence shows that our ordinary conceptions of free will and moral responsibility have definite incompatibilist elements. Consequently, any theory that claims to reflect our folk conceptions would be remiss to not acknowledge these features.

As I noted at the start of this section, when looked at in isolation, the Consequence Argument, the past and social evolution of free will, as well as the empirical research on common-sense intuitions about free will and responsibility raise more questions than they answer and appear to highlight more conflict than agreement. I have shown in this section that these various positions and sources of our common-sense understanding of free will provide a more coherent and reasonable account when considered pluralistically. A pluralistic consideration of our common-sense intuitions about free will alleviates many apparent contradictions, accommodates conflicting free will values, and makes room for discontinuities.

5.3. Potential Objections

As mentioned earlier in this chapter, speaking generally, pluralism in philosophy can be said to be the position that reality is comprised of many distinct things or groups of things (Honderich, 2005:618). It is the position that there exists more than one basic substance or principle. I have argued that there is a plurality of values related to free will that are important and authoritative yet in apparent conflict with each other. I have further suggested that different levels of description of the physical world exist, which can account for the numerous often conflicting empirical evidence about free will. The account of free will and moral responsibility that I have presented raises an issue about making choices when values are incommensurable. Then there is the argument from harm, which insists that, all morality, including moral responsibility, is reducible to dyadic harm. I will briefly present and rebut these two below.

5.3.1. Incommensurable Values

A potential question that could be asked of my pluralist approach is whether rational choices can be made between plural free will values or irreducible positions. This issue arises from the perception that irreducible plurality seems to suggest incommensurability. In this sense, incommensurability can be understood as meaning that there is no universal gauge which can be used to compare two dissimilar values. As social beings, people are faced with choices daily. Free will and more specifically moral responsibility involves choice-making by their very nature. Consequently, I understand why incommensurability of values would appear problematic. If values are genuinely incommensurable, then either people would have to improvise their values grading, or people could not grade them. Such a situation would have dire practical and social consequences and prove a serious problem for free will and moral responsibility. I see two possible responses to this worry, firstly, involving a consideration of the nature of pluralism and the meaning of incommensurable, and secondly, involving an acceptance of incomparability.

Firstly, I consider it an error to assume that pluralism implies that values or elements cannot be compared. I believe that Bernard Williams (1985:17) is correct when he argues that:

> [t]here is one motive for reductivism that does not operate simply on the ethical, or on the non-ethical, but tends to reduce every consideration to one basic kind. This rests on an assumption about rationality, to the effect that two considerations cannot be rationally weighed against each other unless there is a common consideration in terms of which they can be compared. This assumption is at once very powerful and utterly baseless. Quite apart from the ethical, aesthetic considerations can be weighed against economic ones (for instance) without being an application of them, and without their both being an example of a third kind of consideration.

Conceiving of incommensurability as an absence of a general unit of value by which exact comparisons can be made, while considering incomparable as describing a state where there are no possible relations of comparison, allows for describing pluralism as incommensurable and not incomparable.

Secondly, it seems reasonable to me that some features of free will and moral responsibility exist that resist any reasonable choice-making between plural values. The existence of irresolvable conflict seems reasonable without resulting in a dismantling of the pluralist approach, and in fact I would argue that it encourages the pluralist account. John Kekes (1993:24) presents a similar view when he argues that objections that pluralism reveals irresolvable disagreements is not a result of a flaw with the approach or the bias of a theory, but may rather be a result of the plural disposition of values. It seems sensible to me that there may well exist some conflicts which are genuinely irresolvable. If anything, this dissertation has shown that the free will debate is, long running, exceptionally complicated, and multifaceted. Given this complexity, it seems unadvisable to me to expect a simple conflict free approach. Michael Stocker (1992) has echoed this sentiment by highlighting the exceptionally complex nature of moral conflict and noting that expecting simplicity from such conflicts is an error. Additionally, the pluralist account I have presented does not promise a conflict free solution to free will, but I have shown that it is the account which is the most accommodating and conflict easing of the available accounts.

5.3.2. The Argument from Harm

An especially potent argument against a pluralist reading of moral principles, such as free will, comes from monists, such as Kurt Gray (2012) and Sam Harris (2010), who argue that all morality, including moral responsibility, is reducible to dyadic harm[39]. Gary and his colleagues argue that "[a] dyadic template suggests that perceived suffering is not only tied to immorality, but that all morality is understood through the lens of harm" (Gray et al., 2012:108). In his book, *The Moral Landscape*, Harris (2010) uses an example of desecrating a copy of the Qu'ran to illustrate the reduction of moral questions to questions of harm. He argues that "[t]here would be no problem but for the fact that people believe that the Qu'ran is a divinely authored text. Such people almost surely believe that some harm could come to them or to their tribe as a result of such sacrileges—if not in this world, then in the next" (Harris, 2010:89). Such arguments have an intuitive appeal and appear to resolve some of the apparent

[39] Dyadic harm refers to harm in situations where one agent internationally harms an helpless patient, i.e., an intentional agent producing damage/harm to a vulnerable patient (Schein & Gray, 2017; Gray et al., 2012).

complexity of morality, which is why they are especially popular and pose a threat to a pluralist understanding of morality, which includes free will and moral responsibility.

Despite the initial appeal of this approach, I do not believe that it is able to account for as much as the pluralist approach I have presented does. It appears to me that this type of reductionist approach is attempting to enforce uniformity without sufficient regard for natural complexity of morality, free will, and moral responsibility. It can be easily imagined that such an approach would cut off events which it cannot explain and extend its singular conception to fit all that remains. Additionally, I am reminded of the words of Albert Einstein (1934) and Kwame Anthony Appiah (2008), which I believe adequately capture the problem with such an reduction of morality. Einstein (1934:165) noted that "[t]he supreme goal of all theory is to make the irreducible basic elements as simple and as few as possible without having to surrender the adequate representation of a single datum of experience" and Appiah (2008:1) regarding that argues:

> [t]he relevance of the social sciences to our ordinary lives is fairly straightforward. Since what we should do depends on how the world is, our everyday decisions can draw on knowledge from any sphere. It is less obvious that empirical research could have any bearing on our specifically moral judgments. Yet in making our choices we must sometimes start with a vision, however inchoate, of what it is for a human life to go well. That was one of Aristotle's central insights. It is my argument that we should be free to avail ourselves of the resources of many disciplines to define that vision; and that in bringing them together we are being faithful to a long tradition.

In this chapter, I engage with philosophical and empirical considerations to bring new insight to the free will debate and a possible solution to the dialectical impasse. I highlighted the value of pluralist approach to the problem of free will. I highlighted the importance of emotions to our moral responses, how these emotions are linked to internalised rules, and how there are a plurality of these moral rules. Then, I showed that science supports the notion of free will. Lastly, I demonstrated that a pluralistic consideration of our common-sense intuitions about free will addresses many of the apparent contradictions in the free will debate and empirical research.

Chapter Six:
Conclusion & Potential Future Research

My aim has been to address the dialectical impasse which exists between the various free will positions. I achieved this by examining the philosophical, psychological, and empirical landscape related to the free will debate; by investigating the ordinary normative way in which people consider morality in their daily lives; by evaluating the significance of the new insights from experimental philosophy and moral psychology in resolving the problem of free will; by utilising empirical findings and ordinary moral practices to establish greater clarity on the free will debate; and finally, by advancing a pluralist approach to the problem of free will.

To address the dialectical impasse, I have presented a pluralist approach to the problem of free will from three points. Firstly, I showed how moral rules are linked to moral emotions and that these rules can be best understood pluralistically. Secondly, I argued that it is a mistake to reject free will and that science supports the notion of free will. I supported this argument with an appeal to levels of description and showed that making use of differing levels of description addresses some of the apparent conflict between various empirical findings. I showed that various deterministic and indeterministic processes could all exist within the same system but operate at different levels. Finally, I demonstrated that competing positions and empirical research regarding our common-sense intuitions about free will and responsibility are more easily accommodated when considered pluralistically.

I demonstrated the value of such a pluralist approach to the problem of free will by arguing that it makes room for the discontinuities within the free will debate, accounts for conflicting free will values and regret, and acknowledges dissimilar responses to moral responsibility situations.

6.1. Potential Future Research

The wide scope of free will and moral responsibility, especially considering empirical research, and from a pluralist perspective opens an enormous range of research

possibilities. This opening up of opportunities for research and further understanding is one of the great benefits of the pluralist account which I have defended.

The problem of free will is not confined to the Western intellectual tradition. The problem of free will and moral responsibility is a universal human problem. I alluded to this point in my brief discussion of karma in the Indian tradition. The free will debate has received a great deal of attention and investigation from the perspective of the Western philosophical tradition, while comparatively little attention has been afforded to other intellectual traditions and cultures. Focusing on a single philosophical tradition is not an issue itself, however considering the contributions of other traditions to a shared human problem can only help to elucidate the debate. It is the promise of such elucidation which a pluralist account of the problem of free will offers.

With that in mind there is clear room for future research which focuses on the free will problem and moral responsibility from the perspective of various intellectual traditions and human experiences. I believe that many philosophers are seeing the benefit of cross-cultural study and the value of research data that comes from a wider investigation of the human experience. A good example of this appeal to various cultures and traditions for clarity on a shared human problem is Jonathan Haidt's (2012) book, *The Righteous Mind: Why Good People are Divided by Politics and Religion*, where he appeals to various intellectual traditions in his investigation of moral psychology. A great deal can be learned from interviewing experts, sages, and ordinary people from various marginalised groups and often overlooked cultures. The problem of free will is a problem that spans various thought traditions, philosophies, and thinkers. The future requires that we avail ourselves of that reality. This reconceptualising of the practice and approach to philosophy holds appeal and I see great promise for future research and understanding from it.

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