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**AUTOMATISM AND VOLUNTARINESS:  
TOWARDS A NEW FRAMEWORK FOR  
ASSIGNING CRIMINAL RESPONSIBILITY**

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Thesis submitted for the degree of Doctor of Philosophy

University of Sussex

June 2021

## **DECLARATION**

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

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## ABSTRACT

It is a fundamental principle of Anglo-American criminal law that an offender must have performed the relevant criminal offence voluntarily. An instance of an offence occurring as a result of involuntary movements of the body, such as spasms or reflexes, generally gives rise to a claim of automatism, which is overwhelmingly characterised by courts and scholars alike as a ‘defence’. However, such language has implications on the way in which we understand voluntariness in criminal law. Rather than categorising the situation as an instance in which a constituent element of the offence has not been fulfilled, courts seek to identify whether the defendant should be excused. This is problematic for a number of reasons. First, it gives rise to conceptual uncertainty, due to the inadequate labelling of the instance at hand. Second, it has the potential of casting the net of criminalisation too wide, as courts are sceptic and overwhelmingly cautious in acquitting defendants who allege to have moved involuntarily.

This study adopts the view that automatism is not a defence, but rather a denial that the offence ever happened, due to the requirement of voluntariness having not been fulfilled. In turn, the question then becomes: ‘How should the voluntariness requirement be defined in the context of criminal responsibility?’ The present thesis seeks to answer this central question by adopting a multi-disciplinary perspective, engaging in philosophical and neuroscientific analyses on the nature of voluntary movement. Drawing from these areas of research, it is argued that the criminal law should adopt a definition of voluntariness based on one’s retention of sufficient bodily control to move otherwise. Such a conceptualisation would align the requirement with a philosophical understanding of free action based on the availability of alternative possibilities. Moreover, it would place the voluntariness requirement on a sounder empirical footing, given the existence of neuroscientific evidence that traces back the regulation and inhibition of movement to specific, identifiable cognitive processes. The proposed definition of voluntariness would apply to all assessments of criminal responsibility, as an element of the offence, thus relinquishing the application of an automatism ‘defence’. Beyond practical implications, the thesis is also methodologically significant, due to the incorporation of cognitive neuroscience and hypnosis

research into the legal analysis of voluntariness. In this context, the present study contributes to the growing field of ‘neurolaw’, which combines law and neuroscience to influence legal standards through neuroscientific evidence.

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## LIST OF ABBREVIATIONS

ABH	Actual Bodily Harm
ADHD	Attention Deficit Hyperactivity Disorder
AmPhilQ	American Philosophical Quarterly
Annu Rev Law Soc Sci	The Annual Review of Law and Social Science
BCLRev	Boston College Law Review
BehavSci&L	Behavioral Sciences and the Law
BuffCrimLR	Buffalo Criminal Law Review
Cardozo LRev	Cardozo Law Review
CLJ	Cambridge Law Journal
CLP	Current Legal Problems
CrimLR	Criminal Law Review
CUP	Cambridge University Press
ColumLRev	Columbia Law Review
DLS	Dorsolateral Striatum
ECHR	Council of Europe Convention for the Protection of Human Rights and Fundamental Freedoms
EEG	Encephalography
fMRI	Functional Magnetic Resonance Imaging
FordhamLR	Fordham Law Review
Hous J Int'L	Houston Journal of International Law
Int'l JL & Psychiatry	International Journal of law and Psychiatry
Iran J Neurol	Iranian Journal of Neurology
J Abnorm Child Psychol	Journal of Abnormal Child Psychology
J Am Acad Psychiatry Law	Journal of the American Academy of Psychiatry and the Law
JL&Soc	Journal of Law and Society

JLB	Journal of Law and the Biosciences
JPsychiatry&L	Journal of Psychiatry and law
Law & IneqJ	Law and Inequality
LQR	Law Quarterly Review
M1	Primary Motor Cortex
MCC	Model Criminal Code
MLR	Modern Law Review
MPC	Model Penal Code
MRI	Magnetic Resonance Imaging
NILQ	Northern Ireland Legal Quarterly
OJLS	Oxford Journal of Legal Studies
OUP	Oxford University Press
PAP	Principle of Alternate Possibilities
PFC	Prefrontal Cortex
preSMA	Pre-supplementary Motor Area
PTSD	Post-Traumatic Stress Disorder
SOA	Sexual Offences Act 2003
SocPhil&Pol'y	Social Philosophy and Policy
SMA	Supplementary Motor Area
Stan L Rev	The Stanford Law Review
UPaLRev	University of Pennsylvania Law Review
UPittLRev	University of Pittsburgh Law Review
VMPFC	Ventromedial Prefrontal Cortex
VUWLR	Victoria University of Wellington Law Review
WLR	The Weekly Law Reports

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# CHAPTER 1

## INTRODUCTION

### 1. Context and Rationale

The legal requirement that an offender must have committed the relevant criminal offence *voluntarily* is universally accepted within case law, statutes and textbooks.<sup>1</sup> Such an acknowledgement rests on the fact that, as a minimum condition for criminal responsibility, the conduct in question should be attributed to the defendant where they act as an autonomous agent. However, despite references to such a requirement within legal documents and scholarship, no precise definition of voluntariness can be identified within case law or statutes. This is problematic, as the lack of clarity and consistency risks negatively impacting legal certainty and fairness. On a fundamental level, such an approach is at odds with common law rules, both in terms of not treating like cases alike and in respect of not giving adequate notice to members of society as to the legal consequences of their conduct.<sup>2</sup>

This thesis seeks to address the challenging issues prompted by the voluntariness requirement's lack of legal definition. In other words, the main question that the thesis pursues is the following: 'How should voluntariness be defined in the context of criminal responsibility?'. Adopting the methodological approach of exploring conceptualisations of voluntariness across multiple disciplines, the study seeks to identify and recommend a definition that is grounded on a sounder theoretical footing. Here, it is argued that a multi and interdisciplinary approach, which goes beyond the legal sphere and includes philosophical and neuroscientific enquiries, is needed to understand the concept and enable the reconstruction of its essential role within the law. In this context, the

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<sup>1</sup> *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 409 (Lord Denning): 'The requirement that it should be a voluntary act is essential, not only in a murder case, but also in every criminal case.'; see also Jeremy Horder, *Ashworth's Principles of Criminal Law* (8<sup>th</sup> edn, OUP 2016) 72; and Jonathan Herring, *Criminal Law: Text, Cases, and Materials* (6<sup>th</sup> edn, OUP 2014) 104.

<sup>2</sup> See for example *Practice Statement (Judicial Precedent)* [1966] 1 WLR 1234, 1234 (Lord Gardiner LC): 'Their Lordships regard the use of precedent as an indispensable foundation upon which to decide what is the law and its application to individual cases. It provides at least some degree of certainty upon which individuals can rely on in the conduct of their affairs, as well as a basis for orderly development of legal rules'.

thesis draws together theoretical and empirical lessons from discrete disciplines to propose a working definition of voluntariness. To illustrate how this could apply in practice, the thesis explores the proposed definition in the unique context of hypnotic movement, which has often been categorised as involuntary by courts, but with little explanation as to the rationale behind such a classification.<sup>3</sup>

The remainder of this chapter explores the way in which courts and statutes have positioned the principle of voluntariness in criminal law and further explains why the lack of detail and definition is problematic. Moreover, the relationship between the voluntariness requirement and automatism is discussed, as it is argued that much of the current conceptual confusion rests on the interplay between these. Understanding this relationship will also enable a discussion as to the significance of this study and its potential impact for criminal responsibility assessments. Finally, the chapter discusses the structure of the thesis and outlines in greater detail the theoretical framework upon which it is based.

### **a. The Voluntariness Requirement**

Within multiple common law jurisdictions, some consistency can be identified in terms of the acknowledgement of a requirement that an offence must have been committed voluntarily in order to be characterised as criminal. This appears to be the case both in codified and uncoded legal systems. For example, according to Lord Denning in *Bratty v Attorney General of Northern Ireland*:

The requirement that it should be a voluntary act is essential, not only in a murder case, but also in every criminal case. No act is punishable if it is done involuntarily.<sup>4</sup>

Similarly, it was argued in the Canadian case of *Parks* that:

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<sup>3</sup> *R v Coley* [2013] EWCA Crim 233, [22] (Hughes LJ). For further detail, see Chapter 5.

<sup>4</sup> [1963] AC 386, 409 (Lord Denning).

Our system of justice is predicated on the notion that only those who act voluntarily should be punished under the criminal law.<sup>5</sup>

In the United States, the requirement is enshrined in the Model Penal Code (MPC), which excludes liability in the absence of a voluntary act or the omission to act within physical capabilities.<sup>6</sup> Whilst the Code is not in itself legally binding, it has shaped the laws of various states such as New York or Montana, which have positioned the requirement as a fundamental or a minimal element of criminal responsibility in their respective penal codes.<sup>7</sup>

From a normative standpoint, the voluntariness requirement is often referred to as the irreducible minimum condition for criminal responsibility.<sup>8</sup> Going beyond one's ability to physically move their bodies, it is said that it is the voluntariness of the person that contributes to their responsible agency and autonomy.<sup>9</sup> To criminalise people when they are involuntary would thus amount to an injustice. As society generally considers only voluntarily committed actions (or omissions) as suitable grounds for assessing the level of blameworthiness of the agent, neither deterrence nor punishment would be heightened by criminalising involuntary conduct.<sup>10</sup> Therefore, whether we conceptualise criminal responsibility in terms of the infliction of harms, or the expression of (moral or character based) wrongs, ascription of such harms or wrongs to the defendant would require first a demonstration of agency. The most basic level of agency required for all criminal

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<sup>5</sup> *R v Parks* [1992] 2 SCR 871, 874 (La Forest, L'Heureux-Dube and Gonthier JJ). See also the Australian case of *Ryan v The Queen* [1967] HCA 2, [18] (Windeyer J): 'That an act is only punishable as a crime when it is the voluntary act of the accused is a statement satisfying in its simplicity.'

<sup>6</sup> US Model Penal Code, s.2.01(1): 'A person is not guilty of an offense unless his liability is based on conduct which includes a voluntary act or the omission to perform an act of which he is physically capable.'

<sup>7</sup> See for example s.15.10 of the New York Penal Law: 'The minimal requirement for criminal liability is the performance by a person of conduct which includes a voluntary act or the omission to perform an act which he is physically capable of performing [...]'; and s.45-2-202 of the Montana Code Annotated 2019: 'A material element of every offense is a voluntary act, which includes an omission to perform a duty that the law imposes on the offender and that the offender is physically capable of performing [...]'

<sup>8</sup> Ian P Farrell and Justin F Marceau, 'Taking Voluntariness Seriously' (2013) 54 BCLR 1545, 1598. See also A P Simester, 'On the So-called Requirement for Voluntary Action' (1998) 1 BuffCrimLR 403, 406: 'The foundation of moral responsibility is not action but voluntariness'.

<sup>9</sup> Antony Duff, 'Action, the Act Requirement and Criminal Liability' (2004) 55 Royal Institute of Philosophy Supplement 69, 70. See also Horder (n 1) 72. This thesis adopts a gender-neutral language, using 'they/their' as a singular pronoun.

<sup>10</sup> Unless there is a prior fault on the part of the defendant. See also Robert Schopp, *Automatism, Insanity, and the Psychology of Criminal Responsibility: A Philosophical Inquiry* (CUP 1991) 5.

offences (including strict liability offences) is that the defendant acted or omitted to act voluntarily.<sup>11</sup>

At the same time, despite the acknowledgement of the principle and its significance across multiple common law jurisdictions, there is a lack of detail as to what being ‘voluntary’ actually means for legal purposes. For instance, in England and Wales, beyond issuing statements recognising the existence of the requirement, no overarching definition or guidance can be identified as to how to distinguish a voluntary from an involuntary act. In most cases, case law and legislation are focused on those instances in which a movement should be categorised as involuntary, as opposed to assessing a movement against a standard of voluntariness. This is unsuitable, as it contributes to shifting the focus of the criminal assessment from that of establishing that the elements of an offence have been fulfilled, to that of applying a ‘defence’.<sup>12</sup>

Equally, the lack of definition, as well as the fact that courts adopt multiple interpretations of ‘(in)voluntariness’ within case law, runs the risk of undermining the principle of legal certainty, particularly in common law jurisdictions, where courts are bound by precedent. This principle underpins the rule of law as recognised across the world.<sup>13</sup> Modern and historic texts frequently reference the idea that citizens should be able to know in advance the legal consequences that stem from committing themselves to a particular course of action.<sup>14</sup> Moreover, such a principle is also acknowledged as instrumental in the development of domestic laws that respect human rights.<sup>15</sup> In the context of the criminal law, legal certainty is mostly concerned with the idea that

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<sup>11</sup> J J Child and Alan Reed, ‘Automatism Is Never a Defence’ (2014) 65 NILQ 167, 176.

<sup>12</sup> This argument is developed in Subsection b.

<sup>13</sup> James R Maxeiner, ‘Some Realism About Legal Certainty in the Globalization of the Rule of Law’ (2008) 31 Hous J Int’L 27, 28.

<sup>14</sup> *Black-Clawson International Ltd v Papierwerke Waldhof-Aschaffenberg AG* [1975] AC 591, 638 (Lord Diplock); see also Francis Bacon quoted in *R v Misra and Srivastava* [2005] 1 Cr App R 328, [32] (Judge LJ): ‘For if the trumpet give an uncertain sound, who shall prepare himself to the battle? So if the law give an uncertain sound, who shall prepare to obey it? It ought therefore to warn before it strikes...’

<sup>15</sup> See for example *Maestri v Italy* (39748/98) [2004] ECHR 76 (17 February 2004) para 30: ‘The law should be accessible to the persons concerned and formulated with sufficient precision to enable them – if need be, with appropriate advice – to foresee, to a degree that is reasonable in the circumstances, the consequences which a given action may entail.’

individuals must be given notice of the applicable rules so that they can regulate their conduct and avoid punishment. According to the House of Lords in *R v Rimmington and Goldstein*:

There are two guiding principles: *no one should be punished under a law unless it is sufficiently clear and certain* to enable him to know what conduct is forbidden before he does it; and no one should be punished for any act which was not clearly and ascertainably punishable when the act was done.<sup>16</sup>

The absence of a clearly defined requirement of voluntariness in law, despite its status as an essential and minimum condition of criminal responsibility, sits directly at odds with the above statement. Given that voluntariness is a constituent element of all criminal offences, an insufficiently outlined definition puts assessments of liability at risk. As Judge LJ highlights, vague laws may effectively impede the identification of a relevant prohibited conduct, forcing judges ‘to guess at the ingredients of a purported crime’ and thus making a conviction ‘unsafe’.<sup>17</sup> Continuous references to a need for voluntariness, but without clarifying how it is to be identified, leaves the requirement in ambiguity as to its status and application. Furthermore, in a common law jurisdiction based on precedent, the absence of a legal definition facilitates an inconsistent approach in which like cases may not actually be treated alike.<sup>18</sup>

## **b. The Relationship Between Automatism and Voluntariness**

In part, the lack of a definition of voluntariness can be attributed to the relatively few instances in which courts are faced with the issue, thus reducing opportunity for ‘law-making’ in this area. Generally, courts operate on the assumption that all offences are committed voluntarily, except in a select few cases where the defendant raises the issue that their movements had been

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<sup>16</sup> [2006] 1 AC 459, 482 (Lord Bingham) (emphasis added).

<sup>17</sup> *R v Misra and Strivastava* [2005] 1 Cr App R 328, [34] (Judge LJ).

<sup>18</sup> See for example *Practice Statement (Judicial Precedent)* [1966] 1 WLR 1234, 1234 (Lord Gardiner LC): ‘Their Lordships regard the use of precedent as an indispensable foundation upon which to decide what is the law and its application to individual cases. It provides at least some degree of certainty upon which individuals can rely in the conduct of their affairs, as well as a basis for orderly development of legal rules’.

involuntary.<sup>19</sup> However, central to much of the conceptual confusion regarding the voluntariness requirement, and its meaning and position within the structure of offence elements, has been that assessments of voluntariness (or lack thereof) have mainly taken place through the use of automatism. This is a claim raised by defendants when they allege that they had been involuntary at the time of the offence. In contrast with the requirement itself, which can be characterised as an element of an offence, automatism has been overwhelmingly described as a defence by courts, law-makers and scholars alike.<sup>20</sup> However, the co-existence of both the requirement and the automatism ‘defence’ has contributed to a lack of clarity as to what voluntariness means in law, as well as to the role that is left for the requirement in light of the overwhelming reliance on automatism to make assessments of involuntariness. More significantly, such reliance, and particularly the development of case law focusing on ascertaining whether a movement is involuntary, rather than voluntary, has masked the need for adequately rationalising voluntariness for legal purposes.

Generally, a claim of automatism is introduced where the defendant claims that, at the time of the offence, they had been involuntary or in some way ‘automatic’. A frequently cited definition of such instance is that of Lord Denning in *Bratty v Attorney General of Northern Ireland*:

An act which is done by the muscles without any control by the mind, such as a spasm, a reflex action or a convulsion, or an act done by a person who is not conscious of what he is doing, such as an act done whilst suffering from concussion or whilst sleep-walking.<sup>21</sup>

If a movement is found to have been involuntary, automatism operates to prevent liability for the alleged offence. However, depending on the trigger that leads to the involuntariness, the law distinguishes between automatism of the ‘sane’ and ‘insane’ kind. Specifically, where the

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<sup>19</sup> *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 413 (Lord Denning): ‘a man’s act is presumed to be voluntary unless there is evidence from which it can reasonably be inferred that it was involuntary’.

<sup>20</sup> See for example *Coley* [2013] EWCA Crim 233, [24] (LJ Hughes); and Law Commission, *Criminal Liability: Insanity and Automatism Discussion Paper* (July 2013) para 1.27; and Paul H Robinson, ‘Criminal Law Defenses: A Systematic Analysis’ (1982) 82 ColumLRev 199, 204.

<sup>21</sup> [1963] AC 386, 409 (Lord Denning).

automatism is caused by an external factor, then the defendant is acquitted. Examples include being ‘attacked by a swarm of bees’ whilst driving or being ‘stunned by a blow on the head from a stone’ from passing traffic,<sup>22</sup> as well as reacting to prescribed drugs such as insulin.<sup>23</sup>

In contrast, if the automatism is caused by an internal factor such as a mental or physical condition,<sup>24</sup> the defendant is found ‘not guilty by reason of insanity’ and is subjected to restrictions proportionate to the level of danger they may pose to society.<sup>25</sup> Such a distinction between external and internal triggers has been consistently criticised within the literature for the unfair results it may lead to,<sup>26</sup> with the most poignant example being that of diabetes. Whereas hyperglycaemia can be triggered by someone forgetting to take insulin, hypoglycaemia can result from having a reaction to insulin.<sup>27</sup> However, involuntariness that arises from these two circumstances is treated differently, with the former instance being categorised as a case of ‘insanity’, and the latter leading to an acquittal. For present purposes, it is worth noting that these seemingly arbitrary separations have contributed to the conceptual confusion regarding the relationship between the voluntariness requirement and the doctrine of automatism. This can be attributed primarily to the development of multiple legal principles that assess the same aspect, namely voluntariness, and the lack of clarification as to how voluntariness should be defined.

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<sup>22</sup> *Hill v Baxter* [1958] 1 QB 277, 286 (Pearson J).

<sup>23</sup> See for example *Broome v Perkins* [1991] 2 QB 92; and *R v Bailey* [1983] 1 WLR 760; and *R v Quick* [1973] QB 910.

<sup>24</sup> These include epilepsy, sleepwalking or even hyperglycaemia. See *R v Sullivan* [1984] AC 156; *R v Burgess* [1991] 2 QB 92; and *R v Hennessy* [1989] 1 WLR 287.

<sup>25</sup> Such restrictions range from an absolute discharge, i.e. release, to being detained in a hospital, in accordance with the Criminal Procedure (Insanity) Act 1964, s.5. See also *R v Sullivan* [1984] AC 156, 172 (Lord Diplock): ‘The purpose of the legislation relating to the defence of insanity, ever since its origin in 1800, has been to protect society against recurrence of the dangerous conduct.’; and Arlie Loughnan, *Manifest Madness: Mental Incapacity in Criminal Law* (OUP 2012) 166: ‘It is clear that the special verdict is both premised on and signals that the insane defendant is dangerous, a construction that has proved remarkably durable [...]’.

<sup>26</sup> The distinction has been described as ‘incoherent and arbitrary’, ‘illogical’, and even ‘little short of a disgrace’. See Law Commission (n 20) para 5.39; William Wilson, Irshaad Ebrahim, Peter Fenwick and R Marks, ‘Violence, Sleepwalking, and the Criminal Law, Part 2: The Legal Aspects’ [2005] CrimLR 614, 617; and Lord Justice Davis in Law Commission (n 20) para 1.46.

<sup>27</sup> Hyperglycaemia refers to a state of exceedingly high blood sugar levels, which are generally brought down by taking insulin. In contrast, hypoglycaemia is a state of exceedingly low blood sugar levels, which may arise, among others, as a result of taking insulin.

To some extent, one could understand why automatism has been widely categorised as a defence, most often as an excuse.<sup>28</sup> From a criminal responsibility viewpoint, it is often argued that a factor in the constitution of excuses is that the agent does not have the capacity and fair opportunity to avoid the wrongdoing.<sup>29</sup> For example, according to Wilson, not following the law must primarily reflect an attitude towards the rule in question.<sup>30</sup> However, when a person lacks the ability to make the choice of breaking the rule because they ‘could not help doing what [they] did’, then the law intervenes to excuse them.<sup>31</sup> As such, automatism as an excusatory defence is generally described in the way that some characteristic of the actor, be it a medical condition or a reaction to an external trigger, vitiates society’s interest in punishing them.<sup>32</sup> When that behaviour is not the creation of the agent’s voluntary effort or determination, or when the actor does not adequately perceive the nature or consequences of the behaviour, society is usually willing to excuse that agent.<sup>33</sup> A distinction is created between behavioural weaknesses indicating a dangerous or antisocial character and those weaknesses that are part of being a normal human being, the latter scenario excusing those ‘one-off’ reactions which are able to block the attribution of blame.<sup>34</sup>

At the same time, adopting the view that automatism is a defence contributes to further uncertainty. First, the mere fact that central to automatism assessments is the involuntariness of one’s movement is hard to reconcile with the existence of a requirement of voluntariness as an element of the offence. Second, viewing automatism as a defence implies that both the *actus reus*

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<sup>28</sup> Most of the literature categorising automatism as a defence has regarded it as an excuse. See for example Robinson (n 20) 221: ‘a *disability* causing an *excusing condition*’ (emphasis added); and Wilson William Wilson, ‘How Criminal Defences Work’ in Alan Reed and Michael Bohlander (eds) with Nicola Wake and Emma Smith, *General Defences in Criminal Law: Domestic and Comparative Perspectives* (Ashgate 2014) 18: ‘a kind of exculpatory wild card’. Others have referred to it as an exemption. See footnote 47.

<sup>29</sup> The emphasis on capacity and opportunity comes from Hart and has broadly been endorsed within the literature. See KJM Smith and William Wilson, ‘Impaired Voluntariness and Criminal Responsibility: Reworking Hart’s Theory of Excuses--The English Judicial Response’, (1993) 13 OJLS 69. Other academics would support a combination of different theories of responsibility, including capacity, character and choice theories. See Jeremy Horder, ‘Criminal Culpability: The Possibility of a General Theory’ (1993) 12 Law and Philosophy 193.

<sup>30</sup> William Wilson, *Central Issues in Criminal Law* (Hart Publishing 2002) 333.

<sup>31</sup> *ibid* 334.

<sup>32</sup> Robinson (n 20) 229.

<sup>33</sup> *ibid*.

<sup>34</sup> Wilson (n 28) 16. See also Loughnan (n 25) 131; and Arlie Loughnan, “‘Manifest Madness’: Towards a New Understanding of the Insanity Defence” (2007) 70 MLR 379, 399.

and *mens rea* of the offence have been fulfilled but that there is a strong reason that excuses the defendant from punishment. Nevertheless, there is a distinction between certain conditions that impair one's ability to reflect on the circumstances and consequences of their actions and those cases in which movement is involuntary. Excusing an offence implies that there is a movement that can be attributed to the agent acting as an autonomous agent, which occurred in the proscribed circumstances or achieved a prohibited result, coupled with an intention or other mental state that is tied to the relevant action. According to Duff, it requires the defendant to admit that they 'got it wrong' and that they failed to exercise 'capacities for rational deliberation and action'.<sup>35</sup> That is, excuses still operate 'within the realm of practical reason', even if that happens 'deficiently'.<sup>36</sup> However, involuntary movements such as spasms or reflexes do not involve practical reason and are not reflective of something of which agents can assume ownership. According to Murphy:

talk of an excuse here seems to make no more sense than would talk of excusing a rock for falling on one's head.<sup>37</sup>

Another factor that contributes to confusion in this area of law relates to the evidential requirement needed to satisfy claims of automatism or insanity. In cases of sane automatism, the law operates under a presumption of 'mental capacity', according to which a person's action is assumed to be voluntary 'unless there is evidence from which it can reasonably be inferred that it was involuntary'.<sup>38</sup> That is, it is only once the defendant produces sufficient evidence to warrant claims of automatism (satisfies an evidential burden) that the prosecution must prove that the defendant had been voluntary.<sup>39</sup> In the case of insanity, the presumption to be rebutted is that of 'sanity', which dates back to the *M'Naghten Case*:

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<sup>35</sup> R A Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law* (Hart Publishing 2009) 287.

<sup>36</sup> *ibid.*

<sup>37</sup> Jeffrie F Murphy, 'Involuntary Acts and Criminal Liability' (1971) 81 *Ethics* 332, 332.

<sup>38</sup> *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 413 (Lord Denning).

<sup>39</sup> *ibid.* See also *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 407 (Viscount Kilmuir LC): 'normally the presumption of mental capacity is sufficient to prove that he acted consciously and voluntarily'. For more information on the distinction between evidential and legal burdens of proof, see Jonathan Doak, Claire McGourlay and Mark Thomas, *Evidence: Law and Context* (5<sup>th</sup> edn, OUP 2018) 48-50.

[...] the jurors ought to be told in all cases that every man is to be presumed to be sane, and to possess a sufficient degree of reason to be responsible for his crimes, until the contrary be proved to their satisfaction.<sup>40</sup>

In contrast with sane automatism, where the defendant is faced with an evidential burden to raise the issue, but it is ultimately the prosecution's task to disprove the automatism,<sup>41</sup> in insanity, the defendant has a legal burden to prove, on the balance of probabilities, that the 'defence' should apply.<sup>42</sup> This is the only 'common law exception'<sup>43</sup> to the principle that the legal burden of proof rests on the prosecution, for even in cases of duress or self-defence, the defendant only has an evidential burden to raise the issue, rather than prove it.<sup>44</sup> In fact, the Law Commission has acknowledged that the reverse burden violates the presumption of innocence enshrined in Art. 6(2) of the European Convention on Human Rights (ECHR).<sup>45</sup> Usually, this approach is justified on the basis that it would be too onerous on the prosecution to prove 'a matter so personal to the defendant' as their 'sanity'.<sup>46</sup> Normatively, it is also said that society should be protected where 'questionable cases' are at 'risk of success'.<sup>47</sup> However, this argument is more persuasive in respect of cases in which the defendant was voluntary, but could not understand what they were doing, as opposed to those in which the defendant was not voluntary.<sup>48</sup> In other words, while it may be acceptable to require sufficient proof that someone should be excused, this is not the case

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<sup>40</sup> *M'Naghten's Case* (1843) 10 Clark and Finnelly 200, 8 ER 718722.

<sup>41</sup> That is, the defence must provide 'only such evidence as would, if believed and uncontradicted, induce a reasonable doubt in the mind of a reasonable jury' as to whether the defendant had been involuntary. See Colin Tapper, *Cross and Tapper on Evidence* (12th ed 2010) 152; and Law Commission (n ) para 8.2.

<sup>42</sup> The rules are also unique in that the prosecution can also raise the issue of insanity, but in this case, this needs to be proved to the criminal standard, i.e. beyond a reasonable doubt. For further detail see Loughnan (n ) 380.

<sup>43</sup> Burdens of proof can also be reversed by statute, e.g. s.75 of Sexual Offences Act 2003 on absence of consent, s.6 of the Public Order Act 1986, on involuntary intoxication etc. For further information see Doak, McGourlay and Thomas (n 41) 52-54; and Paul Roberts and Adrian Zuckerman, *Criminal Evidence* (2<sup>nd</sup> edn, OUP 2010) 266.

<sup>44</sup> See for example David Hamer, 'The Presumption of Innocence and Reverse Burdens: A Balancing Act' (2007) 66 *The Cambridge Law Journal* 142, 148. Compared to other defences such as duress and self-defence, the burden is a legal, rather than an evidential one.

<sup>45</sup> Law Commission (n 20) para 8.43.

<sup>46</sup> *Foye* [2013] EWCA Crim 475, [33].

<sup>47</sup> Stephen J Morse, 'Excusing the Crazy: The Insanity Defense Reconsidered' (1985) 58 *Southern California Law Review* 799, 824.

<sup>48</sup> This would relate to cases where a person performs the elements of the offence, including voluntariness and *mens rea*, but should nevertheless be excused (e.g. due to having performed the offence while hallucinating etc.)

when voluntariness is lacking, for it would place the onus of proving a definitional element of an offence on the defendant. The risk of leaving society unprotected could be mitigated with the use of disposal powers, which are already in place where defendants are found ‘not guilty by reason of insanity’.<sup>49</sup>

At the same time, even if the burden of proof of insanity (as it relates to a lack of voluntariness) were to change to that of sane automatism, there are a number of problematic aspects that should be highlighted. On one hand, requiring the defendant to produce sufficient evidence as to their involuntariness is not necessarily contentious, as long as it is acknowledged that the ultimate burden of proving voluntariness rests on the prosecution. This would make it more feasible and efficient for prosecutions to take place. On the other hand, existing conceptual uncertainties surrounding the legal meaning of voluntariness and the relationship between the requirement of voluntariness and the ‘defence’ of automatism would remain, which could have a negative impact on evidential rules.<sup>50</sup> First, the co-existence of a requirement of voluntariness and a ‘defence’ of automatism leads to unnecessary complexity, given that the prosecution may have to prove different levels of voluntariness according to the claim in question. Second, more conceptually, it is not clear why automatism and insanity (in relation to a lack of voluntariness) claims should rebut a presumption of mental capacity or sanity, rather than one of voluntariness. Such a categorisation can be traced back to a lack of clarification in the law as to the relationship between the requirement of voluntariness and the ‘defences’ of automatism and insanity. While a presumption of voluntariness as a definitional element could be imposed to make prosecutions more feasible, it is not apparent why presumptions of mental capacity or sanity should apply in relation to voluntariness. Such an approach contributes to legal confusion and lack of clarity and further demonstrates why research into the meaning and significance of voluntariness should be carried out, to understand whether it is appropriate to link the notion with mental abilities.

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<sup>49</sup> For further detail on the disposal powers and their role once a legal definition of voluntariness is introduced, see Chapter 6.2.c.

<sup>50</sup> These are addressed below.

Certainly, from a practical viewpoint, one could argue that, given both the scarcity with which courts are faced with the issue of voluntariness and the existence of rules stemming from automatism and insanity case law, there is no need to define voluntariness and to explore its position within the structure of offence elements. That is, the absence of a definition of voluntariness in law is not problematic enough, considering that there are already rules and presumptions in place to help identify involuntariness. Moreover, it could be argued that categorising automatism and insanity as exemptions or denials of responsibility, rather than excuses,<sup>51</sup> would resolve the ambiguities stemming from voluntariness assessments under the remit of a defence. In other words, rather than developing a standard of voluntariness as a definitional element of an offence, it may be sufficient to acknowledge that a person's movements cannot be subjected to moral evaluation, as there are no reasons or motives for performing them.<sup>52</sup> In this way, the current rules would continue to apply, but under the label of a doctrine, rather than defence. For instance, as Loughnan argues, automatism and insanity could be categorised as 'exculpatory mental incapacity doctrines', to indicate that the defendants making these claims 'are not individuals to whom the criminal law – as a normative system – speaks'.<sup>53</sup>

Notwithstanding the above, the present thesis adopts the view that developing a definition of voluntariness as an element of an offence is to be preferred, as it would alleviate conceptual and practical issues associated with the current application of the rules. First, as mentioned above, the co-existence of the voluntariness requirement and the automatism and/or insanity rules adds conceptual confusion to the criminal law and affects certainty in respect of what types of cases

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<sup>51</sup> Gardner argues that excuses focus on the reasons people act in a certain way but where it is impossible to make sense of people's rationales due to profound illness or other factors, there is no need for excuses altogether. According to the author, self-respect is something anyone should deserve, i.e. the ability to provide a logical, rational account of themselves and to show that their actions are those of someone who seeks to 'live up to the proper standards for success' and 'fitness to lead it'. See John Gardner, 'The Gist of Excuses' in John Gardner, *Offences and Defences: Selected Essays in the Philosophy of Criminal Law* (OUP 2007) 132, 133. A similar argument is provided by Horder, who focuses on the difference between accidents that can be attributed to an individual and those which are wholly involuntary, the latter leading to a complete denial of responsibility. See Jeremy Horder, 'Pleading Involuntary Lack of Capacity' (1993) 52 *The Cambridge Law Journal* 298, 299.

<sup>52</sup> Jeremy Horder, *Excusing Crime* (OUP 2004) 9.

<sup>53</sup> Loughnan (n 25) 18. See also Arlie Loughnan, 'Mental Incapacity Doctrines in Criminal Law' (2012) 15 *New Criminal Law Review: An International and Interdisciplinary Journal* 1.

should be judged under which category. For example, certain categories of cases such as ‘trigger slip’ cases or situational liability may be judged under the requirement, while involuntariness due to sleepwalking or diabetes may be judged under insanity or automatism.<sup>54</sup> This issue is further exacerbated by the rationalisation of (in)voluntariness by reference to multiple concepts such as consciousness or control, without a uniform standard applicable to all cases.<sup>55</sup> Such an approach is again, deeply problematic for legal certainty and the consistent application of the law.

Second, beyond the conceptual importance of accurately classifying automatism as a denial of an offence element, there are negative, practical implications stemming from the lack of definition and the assessment of voluntariness under the heading of automatism/insanity. In the attempt to pursue policy considerations and prevent defendants from making ‘bogus claims’,<sup>56</sup> there is the risk of over-criminalising individuals. This is illustrated through the development of automatism case law within the past few decades and the progressive narrowing of instances in which defendants would be categorised as involuntary.<sup>57</sup> For example, whilst originally, cases such as erratic driving triggered by an insulin reaction had been considered as an involuntary occurrence,<sup>58</sup> subsequent cases have narrowed the rule to the point that nothing short of a ‘total destruction of control’ is accepted in order to categorise a defendant as involuntary.<sup>59</sup> Such an approach could be traced back to the categorisation of automatism as a defence, with courts seeking to prevent claims from those deemed morally culpable and undeserving of acquittal. Rather than focusing on establishing whether an element of the offence had been completed, courts take much broader considerations into account, which should only be addressed once voluntariness is ascertained.<sup>60</sup> This means that in order to prevent claims, a wide view of

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<sup>54</sup> See Chapter 2.

<sup>55</sup> See Chapter 2 for an illustration of the multiple concepts that have been used to define voluntariness in law.

<sup>56</sup> Loughnan (n 25) 163.

<sup>57</sup> The narrowing of the automatism rules is discussed further in Chapter 2.

<sup>58</sup> *R v Quick* [1973] QB 910.

<sup>59</sup> *Attorney-General's Reference (No. 2 of 1992)* [1994] QB 91, 105 (Lord Taylor of Gosforth CJ). The trend started with case involving driving offences, as seen in *Broome v Perkins* (1987) 85 Cr App R 321, and later in *Attorney-General's Reference (No. 2 of 1992)* [1994] QB 91, where it was stated that driving under impaired control, without awareness, was not sufficient to be categorised as involuntary. More recently, the rule was affirmed in the leading case of *R v Coley* [2013] EWCA Crim 223, [18] (LJ Hughes).

<sup>60</sup> Such considerations relate primarily to prior fault.

voluntariness is taken, which makes the application of the ‘defence’ virtually impossible. If the rules of automatism – and those of insanity as they relate to the issue of voluntariness – were abolished and the law focused on voluntariness as an offence element instead, it is natural to assume that courts would be more cautious in developing a test as stringent as the present one.<sup>61</sup> Shifting the perspective in this manner would most likely lead to a narrower view of voluntariness that would not go as far as only classifying as involuntary a complete destruction of control.<sup>62</sup> From a criminal justice viewpoint, one would assume that the danger of criminalising individuals who have not actually committed an element of the offence overshadows the risk of defendants abusing the law. Indeed, a presumption of voluntariness could be imposed to increase efficiency and make prosecutions feasible. However, the defendant would have to satisfy an evidential burden, as opposed to a legal one (i.e. to prove their involuntariness on the balance of probabilities). Moreover, in contrast with existing automatism rules, the prosecution would be required to apply a uniform standard and prove voluntariness as a definitional element of the offence, rather than preventing the application of an ‘excuse’ or ‘exemption’, or mitigate against the risk of ‘fanciful defences’.<sup>63</sup> Such an approach would be fairer and avoid the over-criminalisation of defendants who do not complete the elements of an offence.

Once we accept that automatism and insanity (as it relates to voluntariness) are not defences, but merely illustrations of the fact that the voluntariness requirement has not been fulfilled, then it becomes clear that a legal standard of voluntariness must be developed in order to ensure conceptual clarity, as well as consistency, within the criminal law framework. This standard should be imposed as a statutory definition, to be applied whenever the defendant’s level of voluntariness comes into question, irrespective of the circumstances in which the impairment to

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<sup>61</sup> *ibid.* One could also consider the presumption of innocence, as enshrined in Art. 6(2) of the European Convention on Human Rights (ECHR), in light of the fact that it is not for the defendant to establish their innocence. According to Art. 6(2), ‘Everyone charged with a criminal offence shall be presumed innocent until proven guilty according to law’. For further detail, see Chapter 6.2.a.

<sup>62</sup> *ibid.* 175. As will be discussed throughout the thesis, one does not need to completely lose control to become involuntary.

<sup>63</sup> Glanville Williams, ‘Offences and Defences’ (1982) 2 *Legal Studies* 233, 235.

voluntariness may have taken place.<sup>64</sup> Therefore, the ‘defences’ of automatism and insanity should be abolished and any issue of voluntariness should be applied by reference to a legal definition. What is yet to be clarified however, is the impact that such a definition would have on existing case law exploring the nature of voluntariness in the context of automatism and insanity. While these ‘defences’ have been inappropriately been categorised as such, they have nevertheless been concerned with the issues of voluntariness and may have served to produce some guidance on how to separate voluntary from involuntary conduct.<sup>65</sup>

In this context, the analysis must focus on developing a legal definition of voluntariness, exploring the way in which it has been defined in case law and statutes, but also looking beyond the legal sphere to understand its meaning and significance across disciplines such as the philosophy of action and cognitive neuroscience. As such, the remainder of the present analysis will focus on identifying the parameters of the requirement, i.e. identifying the separating point between voluntary and involuntary movements, seeking to answer the central question of ‘How should voluntariness be defined in the context of criminal responsibility?’

## **2. Significance of the Thesis**

This thesis contributes to the existing literature on criminal law theory in multiple ways. Most importantly, it is distinctive in proposing a legal definition of voluntariness. Efforts to reform the law in this area have been limited and have invariably focused on overhauling the application of the automatism rules, as opposed to the voluntariness requirement. For instance, in the past decade, the Law Commission for England and Wales has produced a Discussion Paper on

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<sup>64</sup> For example, whether the defendant was at fault for becoming involuntary is a matter for subsequent consideration for the law.

<sup>65</sup> This issue is addressed in Chapter 2, where it is argued that courts have been associating voluntariness with notions of consciousness and control, but without adequately explaining why that association should be made. As such, it is argued that any statutory definition of voluntariness should be interpreted independently from existing case law, with the effect of overruling the existing law on automatism and insanity (as it relates to voluntariness). Inevitably, as statutory instruments are often incomplete, the same may occur here. However, the interpretation of the definition should be forward-looking, in line with the meaning and significance of the requirement as explored in the present analysis.

automatism and insanity, highlighting the need for reform in this area of law.<sup>66</sup> Here, the Commission discussed important issues regarding the application of the rules, for instance in relation to the inappropriate terminology used to describe defendants suffering from both mental and physical medical conditions as ‘insane’.<sup>67</sup> Moreover, the Commission tackled the widely criticised distinction between external and internal factors leading to distinct verdicts of automatism and insanity.<sup>68</sup> However, the Paper continued to categorise automatism as a defence. In fact, it explicitly stated that the use of the word ‘voluntary’ should be avoided, due to potential misinterpretations arising from multiple conceptualisations.<sup>69</sup> Rather than avoiding the concept of voluntariness, this thesis seeks to directly engage with alternative rationalisations of the requirement, drawing from disciplines outside the criminal law, to produce a comprehensive definition that is theoretically and empirically sound.

The thesis also differentiates itself from previous attempts to reform the automatism defence by way of producing a definition of involuntariness. For instance, Claydon has recommended a test of involuntariness that should assist courts in the application of automatism and insanity rules, based around an actor’s lack of control and/or consciousness.<sup>70</sup> Whilst such concepts are indeed relevant and are explored throughout the thesis, it is argued that a focus on what is it about movement that is involuntary, as opposed to voluntary, is unsuitable. Together with relevant case law and statutory instruments, such definitions can direct us towards more appropriate concepts for defining voluntariness.<sup>71</sup> However, as the Introduction has highlighted so far, a focus on

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<sup>66</sup> Law Commission (n 20).

<sup>67</sup> *ibid* 1.56.

<sup>68</sup> *ibid* 1.41. The Commission proposed a new defence of ‘recognised medical condition’, which would cover the majority of cases consisting of involuntary movements with the exception of a limited number of cases which would continue to be dealt with under the heading of sane automatism. The latter cases would include involuntariness triggered by non-medical reasons such as the oft-cited case of being attacked by a swarm of bees. See Law Commission (n 20) para 5.106.

<sup>69</sup> *ibid* A47. For further detail, see Chapter 2.2.

<sup>70</sup> Lisa Claydon, ‘Involuntary Action and Criminal Responsibility’ (PhD thesis, De Montfort University 2001) 240: ‘Involuntariness would exist when an actor lacked any ability to control her movements, or when an actor lacked a sufficient degree of consciousness to have the capacity to monitor movement’. Here, Claydon has built the definition around Lord Denning’s statement in *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 409: ‘... an act which is done without any control by the mind, such as a spasm a reflex action or a convulsion; or an act done by a person who is not conscious of what he is doing’. For a further discussion on the case law on automatism and insanity, see Chapter 2.

<sup>71</sup> For further detail see Chapter 2.1.

involuntariness, rather than voluntariness, is not only conceptually inappropriate, but can also have practical implications, resulting in overcriminalisation. This is attributable primarily to judicial scepticism and amplified concerns regarding the potential for defendants to abuse the ‘defences’ of automatism and insanity. Since voluntariness is an offence element, what is important is to identify the threshold at which point an agent can be deemed to be voluntary. In this way, the thesis is unique in its objective of defining voluntariness as an essential ingredient of criminal responsibility. In turn, such a definition supports legal certainty, consistency and fairness in the application of criminal offences.

In addition to its legal impact, the thesis is methodologically significant in its exploration of the concept of voluntariness across disciplines. Drawing from the philosophy of action and cognitive neuroscience to extricate themes, patterns and linkages across literature, the thesis relies on an multi and interdisciplinary methodology to propose a legal definition that is both theoretically and empirically based. In particular, incorporating neuroscientific evidence into this investigation, the thesis contributes to the rapidly growing field of ‘neurolaw’, which seeks to utilise neuroscientific knowledge to inform legal debates.<sup>72</sup> ‘Neurolaw’ literature mentions the potential for neuroscience to shed light on the nature of voluntariness.<sup>73</sup> However, no extensive attempts have been made to fully engage with empirical evidence and determine its explanatory power for the purposes of developing a legal definition of the requirement. In addition, the thesis uses hypnotic movements as a case study in which the proposed definition is applied, exploring existing research surrounding hypnotic movements and assessing whether such movements would be categorised as voluntary or not under the proposed definition. The thesis is also original in this respect, particularly given the frequent categorisation of hypnotic movements as involuntary within case

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<sup>72</sup> Naturally, limitations exist in respect to such a methodology. For further information see Section 3 of the present chapter, as well as Chapter 4.1.

<sup>73</sup> See for example Deborah W Denno, ‘Crime and Consciousness: Science and Involuntary Acts’ [2002] 87 Minnesota Law Review 269); and Michael S Pardo and Dennis Patterson, *Minds, Brains, and Law: The Conceptual Foundations of Law and Neuroscience* (OUP 2013) Chapter 5.

law, statutory instruments, and wider scholarship, but with little explanation as to why that classification should be made.<sup>74</sup>

### 3. Methodology and Theoretical Framework

In order to identify what the most suitable conceptualisation of the voluntariness requirement is, the present thesis extends beyond legal doctrine and interacts with disciplines that have engaged extensively with the question of ‘what it is to act voluntarily?’. Specifically, the thesis draws upon literature based in the philosophy of action and cognitive neuroscience. These areas have been selected because both have sought to unpack the meaning and role of voluntariness in human behaviour. Concepts and processes from both disciplines have also found explicit reference within a legal context, used to underpin judgments on automatism and (particularly criminal code-based) definitions of action and omission.<sup>75</sup> For this reason, incorporating external areas of research helps us establish and justify a definition of voluntariness. Moreover, adopting a multi and interdisciplinary perspective enables us to test whether the assumptions upon which the law relies, for instance in the case of hypnotic movements, are supported or contradicted by empirical evidence. In this way, the importance of the project goes beyond practical implications to include methodological ones, connecting traditional methods of legal research with theoretical insights, as well as methods and techniques from these two disciplines.

Rather than simply exploring the concept of voluntariness across disciplines, the thesis seeks to actively incorporate such knowledge and evidence into our legal investigation. Integrating perspectives from other disciplines within the legal sphere is largely supported within the literature. Proponents of such approaches argue that interdisciplinarity broadens legal discourse

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<sup>74</sup> For further detail, see Chapters 2.7. and 5.

<sup>75</sup> When it comes to criminal codes, committees in both Australia and New Zealand have referenced philosophical intricacies as reasons for not clarifying concepts such as ‘conduct’ or ‘action’. See J J Child, ‘Defence of a Basic Voluntary Act Requirement in Criminal Law from Philosophies of Action’ (2021) 24 New Criminal Law Review; and New Zealand *Report on 1989 Crimes Bill* (1991) 9-12; and Australian Model Criminal Code, *Parliamentary Counsel’s Committee* (Commentary) s.202. In relation to case law, see for example cases related to sleepwalking or post-traumatic stress disorder, which placed the emphasis on consciousness as the dividing line between voluntary and involuntary behaviour; *R v T* [1990] Crim LR 256; and *R v Burgess* [1991] 2 QB 92.

and allows for issues to be analysed within a wider conceptual framework, providing solutions through combinations of disciplinary perspectives.<sup>76</sup> Moreover, as Nissani argues, this type of research can be placed on a spectrum ranging from lesser to greater degrees of synthesis between disciplines.<sup>77</sup> The integration of distinct elements of different areas of research varies from partial, where these elements are not merged but simply juxtaposed, to complete, where aspects of different disciplines merge ‘into a single entity’.<sup>78</sup> This thesis seeks to partially integrate elements from the philosophy of action, as well as cognitive neuroscience within legal research, with a view to produce a definition of voluntariness that should be applied within the criminal law.

At the same time, the importance of doctrinal legal research as a foundation for interdisciplinary analyses should not be underestimated. That is, before we attempt to incorporate alternative perspectives into the present assessment, it is important to first explore the way in which the concept of voluntariness has been approached by courts and law-making bodies. Specifically, we must first identify whether alternative notions have been used to rationalise voluntariness, and whether a definition of the requirement may nevertheless be extricated from legal discourse. In recent decades, doctrinal research has come under scrutiny for failing to engage with issues beyond the letter of the law, to the point that certain academics have described it as ‘dead’ and in need of replacement.<sup>79</sup> However, it is still the case that doctrinal methodology can provide the foundation for most legal projects before any interdisciplinary perspectives are included and relevant empirical evidence is identified. No theoretical critique of a legal framework can be provided without a solid foundation related to the status and authority of the doctrine being examined.<sup>80</sup> As such, the first limb of the investigation, i.e. the legal one, analyses statutory codes, as well as courts’ language in categories of cases involving voluntary and involuntary movements. In Chapter 2, the primary objective is that of identifying what exactly are judges relying on in the

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<sup>76</sup> See Douglas W Vick, ‘Interdisciplinarity and the Discipline of Law’ (2004) 31 *JL&Soc* 163, 181.

<sup>77</sup> Moti Nissani, ‘Fruits, Salads, and Smoothies: A Working Definition of Interdisciplinarity’ (1995) 29 *Journal of Educational Thought* 121, 124.

<sup>78</sup> *ibid* 125.

<sup>79</sup> Rob van Gestel and Hans-W Micklitz, ‘Revitalizing Doctrinal Legal Research in Europe: What About Methodology?’ (2011) *European University Institute*, 1.

<sup>80</sup> Terry Hutchinson, ‘Doctrinal Research: Researching the Jury’ in Dawn Watkins and Mandy Burton (eds), *Research Methods in Law* (Taylor and Francis 2013) 7.

absence of a comprehensive definition of voluntariness, whether alternative language is being used, as well as the reasons for doing so. Such investigation of primary sources opens the possibility to subsequently engage with outer perspectives that help us understand the nature and role of the voluntariness requirement in law.

Once the legal analysis is carried out, in Chapter 3, the philosophy of action, and particularly rationalisations of the nature of human action, provides depth to the legal understanding of voluntariness. Specifically, the philosophy of action helps shape an alternative legal framework based on a sounder theoretical foundation, and thus avoid the substantive law being negatively impacted by uncertainty. This is particularly the case as the voluntariness requirement in law can be traced back to the philosophy of conduct of the eighteenth century and it is said to have been translated into modern legal thinking by reference to the concept of ‘willed bodily movements’.<sup>81</sup> If we understand that criminal responsibility is supposed to require only voluntary movements, then any investigation into what it actually means to be voluntary should expect a philosophical account of the nature or the defining characteristics of voluntariness. With its complex engagement with the essence of human action, its source, and constituent elements, the philosophy of action is essential for exploring the meaning and significance of acting voluntarily. In turn, this allows for an initial development of a legal definition of voluntariness, focusing on what the target of the requirement should be and what concept should be used to define it, be it volition, intention, control, and so on.

At the same time, it is important to emphasise that the philosophy of action does not present a unitary definition of voluntary action and, somewhat unsurprisingly, there have been multiple attempts at defining and rationalising the notion of voluntariness. Within this limb of the investigation, the analysis explores these alternative conceptualisations, relating them back to the descriptive and normative ideals of the legal requirement in order to produce a provisional

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<sup>81</sup> See for example John Austin, *Lectures on Jurisprudence or the Philosophy of Positive Law, Volume 1* (Verlag Detlev Auvernmann KG 1972), Lectures XVIII-XIX; and HLA Hart, ‘Acts of Will and Responsibility’ in *Punishment and Responsibility: Essays in the Philosophy of Law* (2<sup>nd</sup> edn, OUP 2008) 90. The reference to willed bodily movements is also present in criminal law textbooks. See, for example, David Ormerod and others, *Smith and Hogan’s Criminal Law* (14<sup>th</sup> edn, OUP 2015) 60.

definition of voluntariness.<sup>82</sup> In other words, the primary objective is to extricate those features of the requirement which can offer an understanding of voluntariness and its role within the legal framework, rather than developing a distinct theory of knowledge within the philosophy of action. In this sense, the thesis navigates across competing theories of action, being mindful of not conflating the needs of the voluntariness requirement with said theories. Here, it is argued that basic bodily movements should be considered the object of the voluntariness requirement. That is, the law should initially focus on those physical movements that are performed first in the chain of causation, rather than concentrate on the circumstances or effects of those movements. Second, the chapter turns to alternative conceptualisations of voluntariness, including control and conscious intention, which are cited by courts in reference to voluntary movements, but also terms such as ‘volitions’, which have traditionally been included within action theory as the source of voluntariness. Analysing these competing categorisations, the chapter concludes that a control-based model is most suitable from a descriptive and normative viewpoint. A provisional definition of voluntariness is provided, consisting of **‘sufficient bodily control to the effect that one can move otherwise’**.

Equally, developing a legal framework by solely relying on the philosophy of action comes with its limitations, particularly given the breadth of multiple conceptualisations of voluntariness within this discipline. As such, in Chapter 4, exploring the nature of voluntary movement through neuroscience contributes to scientifically closing some of the gaps associated with philosophical rationalisations of voluntariness. That is, in addition to legal and philosophical perspectives on voluntariness, studies in cognitive neuroscience also help explain the nature of voluntary movement and test assumptions presented in earlier strands of the investigation. Analysing existing research on the nature of voluntariness and the way in which we restrain or inhibit our actions adds an important empirical layer to the legal investigation, primarily in terms of our underlying physiology. This is done by providing new insights into those faculties or capacities

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<sup>82</sup> For example, references to notions such as consciousness or control are common within case law, but it is not entirely clear why these terms are used to describe voluntary conduct. See for example *R v Coley* [2013] EWCA Crim 233. This limb of the investigation could help understand whether the use of such terms is appropriate or not, i.e. whether the legal approach is supported by the philosophical one.

which are not visible to the naked eye but nevertheless essential in initiating and regulating movements. Assessing the impact of such empirical studies on criminal responsibility also contributes to the growing field of ‘neurolaw’ research, which explores the effects of discoveries in neuroscience on legal rules.<sup>83</sup> These discoveries include the use of brain imaging in the courtroom,<sup>84</sup> lie detection,<sup>85</sup> and even challenges to the idea that free will lies at the heart of criminal responsibility.<sup>86</sup>

Nevertheless, it is acknowledged that limitations exist in relation to incorporating neuroscientific evidence within the legal assessment. Despite the potential of such investigations, neurolaw scholars have been keen to emphasise the drawbacks of applying such distinct areas of research congruently. For example, Morse refers to the ‘overconfidence’ of researchers that suffer from the ‘brain overclaim syndrome’ and exaggerate how much we know and how firm the science is.<sup>87</sup> At the same time, Morse acknowledges that there is a place for neurolaw research, specifically in the case of those neural structures and functions that have an effect on capacities such as control or rationality.<sup>88</sup> In fact, Morse cites automatism as one of the few legal doctrines that can be informed by the use of scientific evidence, mainly in terms of the way in which physical compulsions such as spasms or reflexes arise.<sup>89</sup> Similarly, Pardo and Patterson argue that inductive evidence surrounding attributes or psychological faculties, i.e. evidence that can be empirically correlated with an attribute or faculty,<sup>90</sup> can be probative in the legal context, especially in the case of voluntariness.<sup>91</sup> On the one hand, Pardo and Patterson emphasise that voluntariness, like other attributes or faculties such as perception, intention, and so on, cannot be

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<sup>83</sup> Arian Petoft, ‘Neurolaw: A Brief Introduction’ (2015) 14 *Iran J Neurol* 53, 53.

<sup>84</sup> Adina L Roskies and Walter Sinnott-Armstrong, ‘Brain Images as Evidence in the Criminal Law’ in Michael Freeman (ed), *Law and Neuroscience* (OUP 2011) 97.

<sup>85</sup> Frederick Schauer, ‘Lie-detection, Neuroscience, and the Law of Evidence’ in Dennis Patterson and Michael S Pardo (eds), *Philosophical Foundations of Law and Neuroscience* (OUP 2016).

<sup>86</sup> Nita A Farahany, ‘A Neurological Foundation for Freedom’ in Dennis Patterson and Michael S Pardo (eds), *Philosophical Foundations of Law and Neuroscience* (OUP 2016) 55.

<sup>87</sup> Stephen J Morse, ‘Brain Overclaim Redux’ (2013) 31 *Law & IneqJ* 509, 514.

<sup>88</sup> *ibid* 533.

<sup>89</sup> Stephen J Morse, ‘Lost in Translation? An Essay on Law and Neuroscience’, in Michael Freeman (ed), *Law and Neuroscience* (OUP 2011) 534.

<sup>90</sup> Pardo and Patterson (n 74) 8.

<sup>91</sup> *ibid* 123.

attributed to the brain, but to a person as a whole.<sup>92</sup> That is, a psychological property should not be confused with a neural property.<sup>93</sup> On the other hand, much like Morse, they agree that empirical evidence regarding brain function may be probative in instilling adequate legal standards that are closer in line with those employed by scientists. In the case of voluntariness, this evidence relates primarily to those brain areas and processes necessary to engage in certain activities such as inhibition of movement, conscious decision-making etc. While such areas are not identical to mental activities,<sup>94</sup> they are intrinsically tied to those concepts that have traditionally been used to define voluntariness and are thus essential for developing a theoretically sound definition of the legal requirement.

In this context, it is argued that exploring neuroscientific research contributes towards strengthening our understanding of voluntariness, by undergoing an exploration of empirical studies looking at processes relevant for the concepts used to conceptually define voluntariness. Building on from the previous limb of the investigation, this strand of the analysis enables us to test the suitability of the legal test proposed in Chapter 3, undertaking a review of the literature and extricating relevant themes and patterns from empirical evidence. In particular, Chapter 4 sets out to explore empirical evidence surrounding the mechanisms involved in processing competing alternatives of action and ultimately selecting one over another. In addition, it seeks to evaluate neuroscientific research relating to our ability to inhibit movement, i.e. refrain from moving. Together, this investigation contributes to test the assumption that a control-based model is most appropriate for rationalising voluntariness. Equally, the chapter explores empirical evidence relevant to alternative conceptualisations of voluntariness based on intention or consciousness. Such evidence relates primarily to neural mechanisms at play in habitual movement, which have so far enjoyed an uncertain status regarding their voluntariness and relevance for the criminal law. On a more conceptual level, this investigation also allows us to reflect on the ability for

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<sup>92</sup> *ibid* 21. This is something that the authors have described as the ‘mereological fallacy’: ‘attributing an ability or function to a part that is only properly attributable to the whole of which it is a part’, i.e. ascribing psychological predicates to the brain, rather than to the person as a whole.

<sup>93</sup> See also Neil Levy, ‘Is Neurolaw Conceptually Confused?’ (2014) 18 *The Journal of Ethics* 171.

<sup>94</sup> Pardo and Patterson (n 74) 146.

neuroscience to influence legal decisions and contribute to developing standards of ascribing criminal responsibility. Given the timeframe, as well as the limitations of the researcher as primarily a social scientist, this neuroscientific limb of the investigation consists of a review of existing empirical evidence rather than involve original scientific research.

In Chapter 5, in order to explore the practical implications of the proposed definition of voluntariness, hypnosis provides an appropriate case study, considering that hypnotic movements have been generally referred to as an example of involuntariness within legal scholarship and case law.<sup>95</sup> However, it is one of the categories of alleged involuntary movement that has least been engaged with theoretically or empirically within the case law.<sup>96</sup> When comparing courts' approaches to other types of movements with that of hypnotic ones, it becomes difficult to justify such a categorisation, particularly in the absence of clarification from courts and legal scholars as to what makes hypnotic movement involuntary. Considering the extensive availability of empirical evidence surrounding hypnosis, applying the proposed model in this context enables us to bridge the gap in evidence and explore the approach taken by courts from a scientific perspective. Applying the proposed model of voluntariness, the chapter concludes that hypnosis should not be considered as an example of involuntariness. Whilst potentially altering one's awareness of moving, empirical evidence suggests that bodily control is retained whilst hypnotised, which would suffice under the proposed definition. Most importantly, the case provides the opportunity to showcase the importance and benefits of defining voluntariness for legal purposes. In addition, building on from the neuroscientific strand of the investigation, conducting a case study on hypnosis allows for the further incorporation of scientific evidence

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<sup>95</sup> Law Commission (n 20) 121; see also *R v Quick* [1973] QB 910 and *R v Coley* [2013] EWCA Crim 233. It has also been accepted in other jurisdictions such as Canada, as shown in *R v Book* [1999] ABPC 149. Moreover, it is listed in the United States MPC as a valid justification for an involuntary act, s. 2.01(2)(d). The acceptance is also widespread within academic literature. See for example Jeremy Horder, 'Pleading Involuntary Lack of Capacity' (1993) 52 CLJ 298, 300; and Simester (n 8) 430; and George P Fletcher 'On the Moral Irrelevance of Bodily Movements' (1994) 142 UPaLRev 1443, 1444; Michael Corrado, 'Is There an Act Requirement in the Criminal Law?' (1994) 142 UPaLRev 1529, 1547.

<sup>96</sup> See Chapter 2.7.

into our legal assessment. In turn, this contributes to the development of additional neurolaw research.

Finally, the Conclusion to the thesis brings the analysis together, highlighting the proposed definition and the significance of the study, whilst also acknowledging its limitations. This is followed by clarifications regarding the practical implications of incorporating the proposed model in legal assessments. These relate to the relevant burden of proof in establishing voluntariness, the importance of expert evidence, and the issue of prior fault. The chapter reiterates the position of the requirement within the structure of offence elements, as well as highlights areas where additional research is needed.

#### **4. Research Questions**

This thesis focuses primarily on developing a suitable definition of the legal requirement of voluntariness.

Alongside this central examination, the present investigation aims to answer the following sub-questions:

- Are there any discernible principles regarding the nature of the voluntariness requirement that can be extricated from case law?
- Is there any clarity or consistency in the approach taken by courts to the concept of voluntariness?
- What is the object of the voluntariness requirement?
- How does the philosophy of action conceptualise voluntariness? Which rationalisation best fits the descriptive and normative goals of the legal requirement?
- Does neuroscientific evidence challenge a conceptualisation of voluntariness based on control?

- How does the neuroscience behind inhibiting movement influence our legal understanding of voluntariness?
- Should hypnotic movements be classified as voluntary?
- What are the legal implications of the findings? What can and should the law learn from the analysis?

## CHAPTER 2

### UNDERSTANDING VOLUNTARINESS IN LEGAL DISCOURSE

#### 1. Introduction

As discussed in the Introduction, within criminal law frameworks across multiple jurisdictions, there is a basic acceptance that a constituent element of all criminal offences is the fact they occurred ‘voluntarily’. In essence, the requirement of voluntariness purports that only persons who voluntarily commit a proscribed act (or omit to act in accordance with their legal duty) are to be held criminally responsible.<sup>1</sup> At the same time, when issues of involuntariness arise, they are often dealt with under the heading of automatism, a doctrine which can be said to embody the same functions as the voluntariness requirement,<sup>2</sup> but which has often been described as a ‘defence’.<sup>3</sup> The potential for confusion and inconsistency arising from the division of legal rules between a requirement of voluntariness and a so-called ‘defence’ of automatism is problematic in a number of ways. Most importantly, it leads to legal uncertainty.<sup>4</sup> However, for present purposes, we can look to either to inform debates surrounding the nature of voluntariness and identify whether a legal definition of voluntariness can be extracted from legal discourse.

The following chapter explores voluntariness across statutes and categories of cases dealing with this concept. Particularly, it consists of an analysis of legal sources within different common law jurisdictions, with a view to understanding how voluntariness is defined by courts and whether there are any discernible legal rules been being applied in such cases. This is not to say that legal sources from civil law jurisdictions cannot provide depth to the analysis. However, it is beyond

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<sup>1</sup> See for example *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 409 (Lord Denning): ‘The requirement that it should be a voluntary act is essential, not only in a murder case, but also in every criminal case. No act is punishable if it is done involuntarily.’; and Jeremy Horder, *Ashworth’s Principles of Criminal Law* (8<sup>th</sup> edn, OUP 2016) 72. See also J J Child and David Ormerod, *Smith, Hogan and Ormerod’s Essentials of Criminal Law* (2<sup>nd</sup> edn, OUP 2017) 92. For further information, see Chapter 1.1.a.

<sup>2</sup> See for example Stanley Yeo, ‘Putting Voluntariness Back Into Automatism’ (2001) 32 *Victoria University of Wellington Law Review* 387, 396: ‘automatism is a subset of involuntariness’; and *R v Parks* [1992] 2 SCR 871, 872 (La Forest J): ‘a sub-set of the voluntariness requirement’.

<sup>3</sup> See Chapter 1.1.b.

<sup>4</sup> *ibid.*

the scope of the current thesis to engage in an exploration of voluntariness across the criminal legal frameworks of all legal systems. In other words, despite the potential application to any criminal legal framework, the definition developed in the present thesis is primarily aimed at being implemented in common law jurisdictions, particularly in England and Wales. In this context, the following chapter discusses multiple types of cases in which the issue of (in)voluntariness arises, either as part of the voluntariness requirement or the automatism and/or insanity ‘defences’. These categories have been selected as they are either commonly dealt with by courts – hence, the higher likelihood for identifying existing rules – or are conceptually controversial, as will be seen in the case of hypnosis. The goal here is to identify potential ways of conceptualising the requirement and understand whether there is any clarity and consistency in the way judges address separate categories of cases. Finally, the chapter seeks to identify whether judges rely on certain philosophical or neuroscientific assumptions related to the nature of voluntary action, or whether no such assumptions are being made.

## **2. Statutory Rules and Guidance**

The voluntariness requirement is not codified in statute within England and Wales. It is useful, therefore, to turn to guidance presented by the Law Commission on two separate occasions as a way of understanding the meaning of the requirement in law. For instance, the 1989 Draft Criminal Code Bill constituted an attempt at codifying criminal law, in which reference was made to the automatism doctrine. Specifically, the Code would have statutorily declared that automatism occurred as a result of reflexes, spasms, convulsions, as well as conditions that deprived a person of ‘effective control of the act’.<sup>5</sup> However, no reference to the voluntariness requirement is made in the Bill, either in relation to automatism, or as a standalone requirement for criminal responsibility. In fact, according to the Commentary to the Draft, conceptualisations of the automatism doctrine using the word ‘involuntary’ were not needed, ‘happily, in view of the

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<sup>5</sup> Law Commission, *Criminal Law: A Criminal Code for England and Wales. Volume 1: Report and Draft Criminal Code Bill* (Law Com No 177, 1989) s.33(1)(a).

variable use to which it tends to be put.’<sup>6</sup> In particular, to emphasise the complexities of using the terminology, the Commission referenced cases such as *Broome v Perkins*,<sup>7</sup> in which the defendant appeared to be goal-directed and could not have behaved otherwise.<sup>8</sup> In contrast with judicial opinion, the Commission argued that erratic driving during an episode of hypoglycaemia should have been deemed as involuntary, given the defendant’s inability to choose to behave otherwise.<sup>9</sup> However, rather than clarifying why the emphasis on the choice to behave otherwise was relevant to voluntariness, the Commission simply argued that ‘involuntariness’ was redundant in cases of automatism.<sup>10</sup>

A similar approach was adopted by the Law Commission more recently, when it presented a Discussion Paper consisting of a thorough analysis of the law on automatism and insanity.<sup>11</sup> There, a number of factors that made the doctrine theoretically problematic were identified, particularly in terms of the relationship with the rules relating to the defence of insanity and the distinction between internal and external triggers of involuntary movement.<sup>12</sup> Moreover, the Commission showed a willingness to engage with the notion of voluntariness and acknowledged its role in the ascription of criminal responsibility.<sup>13</sup> However, it did not go further in proposing a test for identifying involuntary movement. A point of concern was that the use of the word ‘voluntary’ would lead to misinterpretation.<sup>14</sup> Specifically, the word could be employed to define particular desires, attitudes, intentions, or simple awareness, but would not always be sufficient

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<sup>6</sup> Law Commission, *Criminal Law: A Criminal Code for England and Wales. Volume 2: Commentary on Draft Criminal Code Bill* (Law Com No 177, 1989) para 11.1.

<sup>7</sup> *Broome v Perkins* (1987) 85 Cr App R 321

<sup>8</sup> In *Broome v Perkins* (1987) 85 Cr App R 321, the defendant drove erratically, under a state of impaired consciousness and lack of awareness of his surroundings but was not deemed to be automatic. This issue is further discussed in the section related to non-dangerous intoxicants.

<sup>9</sup> Law Commission (n 6) para 11.4.

<sup>10</sup> The reference to the capacity to do otherwise has been linked by various academics to the voluntariness requirement and will be explored in Chapter 3.4.c.

<sup>11</sup> Law Commission, *Criminal Liability: Insanity and Automatism. A Discussion Paper* (2013).

<sup>12</sup> *ibid* paras 5.39-5.54.

<sup>13</sup> *ibid* paras A.52-A.54.

<sup>14</sup> *ibid* paras A47. Here, the Commission referred to offences such driving without insurance, where ‘there is no requirement for the act of driving without insurance to have been voluntary or even for the driver to be aware that he or she was uninsured.’ However, it could be argued that the offence would still require the presence of a voluntary act, such as driving. See also Ian P Farrell and Justin F Marceau, ‘Taking Voluntariness Seriously’ (2013) 54 BCLRev 1545, where the authors discuss whether the voluntariness requirement requires a single voluntary movement or whether every element of the *actus reus* must have been completed voluntarily.

to show whether the agent should be criminally responsible.<sup>15</sup> Such an approach reveals a consistent stance to the one previously revealed in the Draft Criminal Code. This relates to avoiding rationalising voluntariness for legal purposes and focusing instead of the types of cases in which automatism or a reformed ‘defence’ would apply. Similar to the Code, the Commission placed an emphasis on the capacity to do otherwise as the foundation of criminal responsibility, but without linking it to the concept of voluntariness.<sup>16</sup> In this way, it seems to have escaped the need to engage with the voluntariness requirement or to produce a description for it. Instead, the Commission proposed a new ‘defence’ of ‘not criminally responsible by reason of recognised medical condition’, which would abolish the defences of insanity and automatism.<sup>17</sup> In as much as the reformed defence would deal with issues of voluntariness that are currently dealt with under the heading of insanity, the proposal represents an improvement, at least from an evidential perspective. This is because, under the reformed ‘defence’, the defendant would no longer be expected to bear a legal burden of proving the condition.<sup>18</sup> That is, they would not be expected to prove their involuntariness on the balance of probabilities. However, it is still inappropriate in that it allows for definitional elements of an offence to be addressed under the heading of a defence. This could lead to potential over-criminalisation, as, it is argued, is the case with the current approach, and would still preserve the current ambiguity surrounding the co-existence of the requirement of voluntariness with that of a defence.<sup>19</sup>

In contrast with England and Wales, the voluntariness requirement is present in US legislation through the Model Penal Code (MPC), which was designed to assist different jurisdictions in achieving a uniform legal framework. This means that states are not required to follow the rules enshrined in the statute, but most of them have incorporated at least partial or modified versions

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<sup>15</sup> Law Commission (n 11) A.47.

<sup>16</sup> *ibid* A.7. This issue will be further explored in Chapter 3.4.c.

<sup>17</sup> Law Commission (n 11) paras 10.6, 10.17. For further detail on the relationship between the reformed defence and the requirement of voluntariness see Chapter 3.4.c.

<sup>18</sup> *ibid* para 10.26. However, this would be an ‘elevated’ burden: ‘where the accused pleads the defence of recognised medical condition, he or she should bear an elevated evidential burden – meaning that the accused must adduce evidence from two experts – but that the prosecution should bear the burden of disproving the defence once it has been raised.’

<sup>19</sup> For further detail see Chapter 1.1.b.

of the Code.<sup>20</sup> In relation to the requirement, the MPC excludes liability in the absence of a voluntary act or the omission to act within physical capabilities.<sup>21</sup> However, what exactly is meant by ‘voluntary’ is not particularly clear, since the statute provides a list of involuntary cases such as reflexes or convulsions, somnambulism, hypnotic trances, and so on.<sup>22</sup> Indeed, s. 2.01 (2)(d) of the MPC describes as voluntary whatever is ‘a product of the effort or determination of the actor, either conscious or habitual’. However, there is no further guidance as to what ‘effort’ or ‘determination’ actually means for legal purposes. Moreover, there seems to be no justification as to why exactly the aforementioned examples were listed in the statute.<sup>23</sup> This emphasis on particular states of involuntariness rather than rationalising voluntariness in law is similar to that present in the Draft Criminal Code in England in Wales.

A similar objective to that of the drafters of the MPC in the US was also present in Australia in the early 1990s, when the Standing Committee of Attorneys-General started developing the Model Criminal Code (MCC).<sup>24</sup> The Code was designed to create consistency and uniformity between states that relied on common law and those with criminal codes but it ultimately became more of a reference tool rather than the standard for legal reform in Australia.<sup>25</sup> In terms of its approach to the voluntariness requirement, the Code lists a number of examples of involuntary movements, similar to the MPC and the Draft Bill in England and Wales. It refers to spasms, convulsions, and acts performed during unconsciousness, impaired consciousness, and sleep.<sup>26</sup>

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<sup>20</sup> See for example s.15.10 of the New York Penal Law: ‘The minimal requirement for criminal liability is the performance by a person of conduct which includes a voluntary act or the omission to perform an act which he is physically capable of performing [...]’; and s.45-2-202 of the Montana Code Annotated 2019: ‘A material element of every offense is a voluntary act, which includes an omission to perform a duty that the law imposes on the offender and that the offender is physically capable of performing [...]’

<sup>21</sup> Model Penal Code (MPC) s.2.01(1).

<sup>22</sup> MPC s.2.01(2).

<sup>23</sup> See for example: The American Law Institute, *Model Penal Code: Official Draft and Explanatory Notes* (Philadelphia 1985), where no justification is given for including either of the exceptions to the voluntary conduct requirement in s.2.01 of the MPC.

<sup>24</sup> Parliamentary Counsel’s Committee, *Model Criminal Code* (28 May 2009).

<sup>25</sup> Arlie Loughnan, ‘“The Very Foundation of any System of Criminal Justice”: Criminal Responsibility in the Australian Model Criminal Code’ (2004) 6 *International Journal for Crime, Justice and Social Democracy* 8, 19.

<sup>26</sup> Parliamentary Counsel’s Committee, *Model Criminal Code* (28 May 2009), s.2.2.4(3).

Similar to the MPC, the MCC also includes a short definition of voluntary movements. Specifically, it states that conduct can only be voluntary if it is a person's 'product of the will'.<sup>27</sup> But as with s.2.01(2)(d) of the MPC, it does not provide a clear description as to what 'a product of the will' entails. In a guide for practitioners, some clarification was given, in that 'a product of physical forces over which the person has no control' should be categorised as involuntary.<sup>28</sup> Moreover, it would be possible to categorise conduct which is 'intentional', i.e. in which the defendant acts 'in a purposeful and directed way', as 'unwilled'.<sup>29</sup> However, as with previous statutory guidance, it seems that the guidance focused more on what is *not* a product of the will rather than what *is*. This apparent avoidance is likely to be attributed to the complexities of the concept and its convoluted philosophical roots. In fact, committees in both New Zealand and Australia have referenced philosophical intricacies as specific reasons for not clarifying concepts such as 'conduct', 'action', or 'omission'.<sup>30</sup>

Overall, it seems that statutory codes such as the MPC and MCC do identify some main areas where involuntariness is at issue. However, neither of them goes further to provide an in-depth rationalisation of the voluntariness requirement, beyond references to issues of free will or usage of terminology such as 'effort', 'control', or 'determination'. These codes have avoided definitions in favour of examples. Though helpful in identifying specific cases where involuntariness may negate liability, there remains a clear need for greater legal certainty and clarity on the conceptualisation of the requirement of voluntariness in law. In the absence of an adequate definition of the requirement, there is a danger that the criminal law will become too rigid in its application. In this context, the remainder of the chapter will explore these examples, alongside others where (in)voluntariness is addressed, in order to see what rules are being applied

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<sup>27</sup> *ibid* s.2.2.4(2).

<sup>28</sup> Commonwealth Attorney-General's Department, 'The Commonwealth Criminal Code: A Guide for Practitioners (2002) The Australian Institute of Judicial Administration Incorporated, Part 2.2. The Elements of an Offence, Division 4 – Physical Elements, 35.

<sup>29</sup> *ibid*. As will be seen throughout the chapter, this is not the approach taken in England and Wales.

<sup>30</sup> J J Child, 'Defence of a Basic Voluntary Act Requirement in Criminal Law from Philosophies of Action (2020) 23 New Criminal Law Review 437, footnote 12. For further information on the relevance of philosophy for the legal requirement of voluntariness, see Chapter 3.

in court. The objective is to understand what voluntariness amounts to in law, and thus to look behind these examples to see why they were chosen and what the underpinning criteria are.

### 3. Situational Liability

Some of the most well-known voluntariness debates have happened in cases involving situational liability. Situational liability refers to instances where a criminal offence does not require the defendant to engage or omit to engage in a particular movement. Instead, it is sufficient that the defendant is in a particular condition or enjoys a certain status.<sup>31</sup> Examples include public intoxication, drunk driving, or overstaying visas. What could be argued is controversial about such cases is the relationship they have with the requirement of voluntariness in law, or lack thereof. Regardless of the way in which one may describe voluntariness, be it through notions such as control, consciousness, and so on, some cases of situational liability are evidently at odds with the requirement, particularly when considering its role of promoting one's autonomy and agency. An example is the case of *Larsonneur*,<sup>32</sup> in which the defendant was found in breach of her requirement not to enter the United Kingdom, despite being forcibly brought into the country by the Police. Here, the Lord Chief Justice emphasised that the circumstances under which she returned to the country were 'immaterial' but no further reasons were given as to why.<sup>33</sup> Similarly, in *Winzar*,<sup>34</sup> a conviction for being drunk on a motorway was upheld, even though the defendant had been forcibly moved to the motorway by the Police.

The fact that the cases 'hardly shine as a beacon of common law reasoning' is clear.<sup>35</sup> In *Larsonneur*, the judges did not even allude to the voluntariness requirement. They simply based

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<sup>31</sup> A P Simester, J R Spencer, Findlay Stark, G R Sullivan, and G J Virgo, *Simester and Sullivan's Criminal Law: Theory and Doctrine* (Hart 2016) 85.

<sup>32</sup> *Larsonneur* (1934) 24 Cr App R 74.

<sup>33</sup> *ibid* 78 (Lord Chief Justice).

<sup>34</sup> *Winzar v Chief Constable of Kent*, The Times, March 28 1983 (QB). Here, the defendant arrived drunk at a hospital and refused to leave after being asked to by staff. Police interfered and moved him to the highway outside the hospital.

<sup>35</sup> Horder (n 1) 112.

the decision on the apparent breach of the Aliens Order 1920.<sup>36</sup> Such verdicts can be contrasted with the case of *Finau*<sup>37</sup> in New Zealand, where the defendant's conviction for overstaying her visa was overturned on the basis of her pregnancy and the rejection of any airline to transport her. Here, judges were aware of the requirement of voluntariness. Specifically, despite not mentioning the requirement itself, they emphasised the need for a person to be able to avoid causing a prohibited event. This is because the court focused on the presence of 'due diligence' on the part of the defendant, establishing a distinction between cases where the lack of voluntariness arises due to fault and those in which the defendant is incapable of controlling the course of events.<sup>38</sup> Thus, despite avoiding the direct reference to the requirement, the approach is in contrast with the English cases of *Larsonneur* and *Winzar* where the courts appeared completely unaware of the issue.

Similar cases related to situational liability have also been recorded in the US. For instance, in *Robinson v California*,<sup>39</sup> it was held that a chronic alcoholic with an uncontrollable desire to consume alcohol should not be criminalised for drinking or being intoxicated. In particular, the court emphasised that because addiction is an illness which may develop 'involuntarily', and because addicts most often lose their power of self-control, it is unconstitutional to criminalise such individuals.<sup>40</sup> Thus, simply being a drug addict was not enough to justify liability. In contrast, the court in *Powell v Texas*<sup>41</sup> distinguished the former decision where the defendant, an alcoholic, had been found intoxicated in a public place. Even though the ingestion of alcohol should have been described as involuntary, following *Robinson*, for the court here, it was enough that the person had chosen to do it publicly.

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<sup>36</sup> *Larsonneur* (1934) 24 Cr App R 74,78 (Lord Chief Justice). The Aliens Order had required foreign nationals seeking residence or employment to register with the police, failure of which resulting in deportation.

<sup>37</sup> *Finau v Department of Labour* [1984] 2 NZLR 396 (CA).

<sup>38</sup> *ibid* 398.

<sup>39</sup> *Robinson v California* (1962) 370 US 660.

<sup>40</sup> *ibid* 667 (Mr. Justice Stewart).

<sup>41</sup> *Powell v Texas* 392 US 514.

Despite mentioning the importance of assigning criminal responsibility based on one's voluntariness, the judges in *Powell* were keen on diminishing the relevance of voluntariness in law. According to Justice Black, whether a defendant was involuntary was:

an inherently elusive question, and one which the State may, for good reasons, wish to regard as irrelevant.<sup>42</sup>

This suggests that the decision might have been reached based on public safety rather than legal principle, for no clear understanding of the voluntariness requirement was actually offered. In fact, isolation, deterrence, and treatment were cited as justifications for punishing a chronic alcoholic for getting drunk in public.<sup>43</sup> Moreover, the stance suggests that judges are unwilling to engage with the voluntariness requirement on the basis of its conceptual difficulties, despite being aware of its existence.

The decision in *Powell* may be explained on the basis that, in contrast with *Robinson*, the defendant in *Powell* could have chosen to become intoxicated at home. Cases such as *Martin v State*<sup>44</sup> support this explanation, in which a conviction was overturned since the defendant had been forcibly brought on public premises by police whilst under a state of intoxication. In fact, the case was even affirmed in *Powell*, where the judges argued that being carried into the street by another person is no act at all.<sup>45</sup> Unfortunately, the court did not explore the argument further, but this is not surprising given its remarks on the irrelevance of the voluntariness requirement. Decisions like *Finau* or *Martin* suggest that the capacity for control might be what courts are looking for in cases of situational liability. However, control is not explicitly linked to voluntariness as a way to describe the concept, but simply used as a rationale for not assigning blame more generally. Moreover, questions surrounding the verdicts in *Larsonneur* and *Winzar* remain, especially since no mention or acknowledgment of the voluntariness requirement was made, a fact that could be attributed more to policy than need for legal clarity.

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<sup>42</sup> *ibid* 544 (Mr. Justice Black).

<sup>43</sup> *ibid* 541 (Mr. Justice Black).

<sup>44</sup> *Martin v State* (1944) 17 So.2d 427.

<sup>45</sup> *Powell v Texas* 392 US 514, 548 (Mr. Justice Black).

Situational liability cases are a clear example where the voluntariness requirement should be brought into play. Despite the unwillingness of English courts to acknowledge the relevance of the voluntariness requirement in these decisions, one implication can be identified by looking at decisions in New Zealand and the US. Specifically, physical manipulation by another amounts to a definite example of involuntariness, with judges in *Martin* or *Powell* stating that no criminal act comes into play in these instances. However, there are some inconsistencies, for example in cases of addiction. Here, judges refer to the requirement but do not seem committed enough to further explain it in their analyses, preferring the use of alternative language such as control, as seen in *Robinson*. In fact, statements referring to the irrelevance of voluntariness, such as those made by Justice Black in *Powell* suggest that courts are effectively forced to engage with the requirement given the nature of the events but are unwilling to go further in describing what the test should be or at least what is it about voluntariness that makes it essential in these cases. The lack of any definitions in these cases raises concerns in terms of the effective and consistent application of the criminal law.

#### 4. Trigger Slip Cases

‘Trigger slip’ cases involve defendants who are charged with shooting and killing victims, but who allege that the pulling of the trigger was a reflex movement rather than a voluntary one. When defendants claim that the discharge of the weapon resulted from a spasm, reflex, or as a result of being startled, they essentially allege that the movement of their finger was involuntary, and that the voluntariness requirement has not been fulfilled. Such cases could be included within those examples listed in statutory codes, as outlined above.<sup>46</sup> However, rather than acquitting,

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<sup>46</sup> An example could be s.2.01(2)(a) of the MPC, referring to reflexes or convulsions, or even s.2.01(2)(d) of the same Code, which refers to conduct that ‘otherwise is not a product of the effort or determination of the actor, either conscious or habitual’.

courts seem to have avoided this requirement by identifying other voluntary movements as the death-causing ones, potentially due to public policy considerations.<sup>47</sup>

In terms of the predominant approach, judges have not limited the discussion around the muscular contraction of the defendants' fingers but instead widened their analyses to address preceding voluntary movements. For instance, in *Gray v Barr*,<sup>48</sup> the court found that in the accidental discharge of a gun during a fight, the focus would turn to the preceding action of approaching the victim with a gun.<sup>49</sup> However, the court did not refer explicitly to voluntariness in the case, preferring to focus on the intentional and deliberate nature of the behaviour more widely. Specifically, wielding a loaded shotgun amounted to 'a wilful and culpable act' which could have reasonably been expected to carry the risk of discharge.<sup>50</sup> Here, the court focused on a previous time where there was voluntary movement rather than declaring that the discharge occurred involuntarily. A similar approach was taken in Australia, where trigger slip cases have been more frequent. For instance, in states such as New South Wales, reckless indifference as to life is sufficient to establish the *mens rea* for murder.<sup>51</sup> This means that presenting a loaded shotgun in an attempt to commit a robbery could lead to a murder verdict if the weapon accidentally discharges, as opposed to a manslaughter, as was the case in *Gray v Barr*.<sup>52</sup>

Looking at the way in which courts refer to voluntariness in trigger slip situations, most cases focus on the discharge of the gun as the death-causing act, which can involve a multitude of separate movements. The problem with this approach is that it is not entirely clear what needs to

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<sup>47</sup> The issue is further exacerbated by the focus on the voluntariness of the *actus reus*, as opposed to the specific movement. This issue is considered in Chapter 3.

<sup>48</sup> *Gray v Barr* [1971] 2 QB 544.

<sup>49</sup> This was a civil case dealing with the issues of whether Barr could rely on his insurance to recover indemnity for the consequences of his own dangerous act. However, the court did acknowledge that the act amounted to manslaughter and not murder, given that the requisite *mens rea* for murder was not present.

<sup>50</sup> *Gray v Barr* [1971] 2 QB 544, 586 (Phillimore LJ).

<sup>51</sup> S.18(1) of the Crimes Act 1900.

<sup>52</sup> *Ryan v The Queen* [1967] HCA 2, [28] (Barwick CJ). Here, the defendant devised a plan to rob a service station. He entered carrying a rifle and demanded that the shop assistant turn around in order to be tied up. Whilst reaching into his pocket for the rope, the assistant suddenly turned around, startling Ryan. This led to the accidental discharge of the gun and the fatal shooting of the assistant. The defendant was charged with murder.

be voluntary in order to meet the requirement. In *Vallance* for instance, it was recognised that the discharge is:

a complex act, involving loading the piece, cocking it, presenting it, pressing the trigger. The act, that if done voluntarily and intentionally would constitute the crime, is *the whole deed whereby the bullet was caused to strike and wound*.<sup>53</sup>

However, the statement does not clarify what specifically is sufficient to complete the voluntariness requirement. Courts have confirmed that in theory, a person who pulls the trigger ‘in a reflex or convulsive, unwilld movement of his hand or his muscles’ would not be regarded as voluntary.<sup>54</sup> However, there have been various cases in which defendants were convicted despite the pressing of the trigger occurring accidentally.<sup>55</sup> Even though such cases can be solved by reference to preceding movements that meet the causation rules and the contemporaneity between *actus reus* and *mens rea*, they do not provide a clear rationalisation of the way in which the requirement should be applied in each case. In particular, courts have been quick to state that it is the set of connected, willed movements of loading the gun, presenting it to the victim, and pulling back the hammer, that should be deemed as death-causing.<sup>56</sup> This is the case, despite the lack of evidence as to whether the pressing of the trigger was involuntary or not. In this way, it seems that the focus of the requirement is on the voluntariness of the *actus reus* itself, with its accompanying circumstances and/or results, rather a specific bodily movement.<sup>57</sup> For instance, in *Murray*,<sup>58</sup> it was said that to regard the muscular contraction of the finger as what caused the death would lead to the conclusion that there was no thought and will on the part of the actor and thus result in too strict of an application of the criminal law.

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<sup>53</sup> *Vallance v The Queen* [1962] HCA 42, [11] (Windeyer J) (emphasis added). The present thesis disagrees with this view, as it is argued that only physical movements must be voluntary, rather than a complex act that involved wider circumstances and results. For further information, see Chapter 3.

<sup>54</sup> *Ryan v The Queen* [1967] HCA 2, [22] (Barwick CJ).

<sup>55</sup> See for example *Ryan v The Queen* [1967] HCA 2; *Murray v The Queen* [2002] HCA 26; *Koani v The Queen* [2017] HCA 42.

<sup>56</sup> *Koani v The Queen* [2017] HCA 42, [39] (Kiefel CJ, Bell, Gageler, Nettle and Gordon JJ).

<sup>57</sup> For a discussion as to why the focus on bodily movements is preferable, see Chapter 3.2.

<sup>58</sup> *Murray v The Queen* [2002] HCA 26, [50] (Gummow and Hayne JJ).

What is equally problematic is that courts have remained reluctant to engage with the scope and boundaries of the voluntariness requirement. On one hand, they acknowledge that while a presumption of voluntariness may apply,<sup>59</sup> it is ultimately the prosecution's burden to prove voluntariness as a definitional element of an offence, beyond a reasonable doubt.<sup>60</sup> On the other hand, there is little clarification within case law as to the meaning and scope of the requirement. In fact, there has been a tendency to simply assert that 'the answer is far from simple' due to the ambiguities associated with the notion of voluntariness.<sup>61</sup> Some have connected action with the idea of 'will' but without explaining what is meant by a 'willed act'.<sup>62</sup> In other cases, courts appear to conflate the issue of voluntariness with that of identifying a conscious, intentional movement that causes death. For example, in *Murray*, Gummow and Hayne JJ stated that:

the more precise the identification of a particular physical movement as the 'death-causing act', the more likely it is that it will be harder to discern a *conscious decision* by the actor to make that precise and particular physical movement.<sup>63</sup>

Such an argument may be used to claim that the voluntariness requirement is based on conscious decisions. However, this is not clear, mainly given the fact that courts have not clarified the relationship between the *actus reus* requirement and the voluntariness one.<sup>64</sup> Moreover, it suggests that courts are more interested in securing convictions for defendants whose choices are blameworthy, at the expense of the voluntariness requirement. Even if the defendant could be held properly liable for the inchoate offence of attempted murder, carrying the same sentence, to hold the defendant liable for the full offence, without their movements being voluntary, is not only morally problematic, but it also raises questions of fair labelling.

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<sup>59</sup> *The Queen v Falconer* [1990] HCA 49, [9] (Mason CJ, Brennan AND McHugh JJ).

<sup>60</sup> *ibid.* See also *Ryan v The Queen* [1967] HCA 2; and *Murray v The Queen* [2002] HCA 26; and *Gillett v R* [2006] NSWCCA 370.

<sup>61</sup> *Ryan v The Queen* [1967] HCA 2, [18] (Windeyer J).

<sup>62</sup> *ibid.* This approach is potentially more straightforward in this category of cases, as there is an obvious and easy alternative target in the preparatory acts.

<sup>63</sup> *Murray v The Queen* [2002] HCA 26, [49] (Gummow and Hayne JJ) (emphasis added). The emphasis on conscious decisions will be explored further in the following chapters.

<sup>64</sup> This issue is discussed at length in Chapter 3.3.

Trigger slip cases are an appropriate example of decisions in which courts deal with the requirement of voluntariness tentatively but take pains to avoid fully engaging with the reasoning underpinning the doctrine. On one hand, judges recognise that pressing the trigger is not a voluntary movement. Yet on the other, rather than engaging with and further explaining the issues surrounding one's involuntariness, they focus instead on preceding movements and regarding the set of connected movements as enough to satisfy the requirement. Moreover, when courts do engage with the requirement, they seem to muddy the waters, by conflating voluntariness with conscious choice, but without explaining why that is the case.

This narrow approach to applying the voluntariness requirement could be rationalised by the apparent priority of securing a conviction based on the defendant's moral blameworthiness. For example, the 'pursuance of the design to commit the robbery' was a justification raised in the case of *Ryan* for the focus on voluntary movement preceding the pulling of the trigger.<sup>65</sup> Similarly, the court in *Murray* warned against adopting a strict interpretation of linking the death-causing act to the involuntary pressing of the trigger.<sup>66</sup> However, the fact that defendants in such cases were potentially less sympathetic than, for instance, defendants in situational liability cases should not justify the increased emphasis on prior movements. If we are to maintain a principled basis for criminal responsibility that results in the consistent application of criminal rules, focus must be given to the requirement that defendants be voluntary. At the same time, this category of cases is similar to that of situational liability in that it assumes certain movements as involuntary but does not provide much guidance in identifying the underpinning criteria of the requirement.

## 5. Post-Traumatic Stress Disorder

Another relevant category of sane automatism is that of post-traumatic stress disorder (PTSD) and other offences occurring as a result of dissociative states. According to the American

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<sup>65</sup> *Ryan v The Queen* [1967] HCA 2, [19] (Taylor and Owen JJ)

<sup>66</sup> *Murray v The Queen* [2002] HCA 26, [49] (Gummow and Hayne JJ). In fact, similar concerns can be raised in relation to case of *Gray v Barr* and whether involuntary manslaughter as an offence is compatible with the voluntariness requirement.

Psychiatric Association, such states amount to ‘a disruption in the usually integrated functions of consciousness, memory, identity or perception of the environment.’<sup>67</sup> Because of the impairment of these functions, it seems that some dissociative states might affect a person’s voluntariness. Thus, crimes committed in these circumstances might lack voluntariness and as such, should be discussed in relation to the requirement.

Looking at the approach of the courts, it appears that dissociative states amount to a valid example of involuntariness. For instance, in *T*,<sup>68</sup> the defendant was charged with robbery and assault causing ABH but claimed that she had been raped three days prior to her arrest, a circumstance that led to her experiencing PTSD. According to a psychiatrist who diagnosed her, at the time of the offence she had entered a dissociative state and the crimes had occurred throughout ‘a psychogenic fugue’ during which ‘she was not acting with a conscious mind or will’.<sup>69</sup> The court held that a condition of PTSD amounted to an external factor that could lead to sane automatism.<sup>70</sup> In contrast with everyday stress or sadness, rape ‘could have an appalling effect on any young woman, however well-balanced normally ...’.<sup>71</sup> The acceptance of PTSD as a trigger for involuntary movement was later endorsed by the Law Commission as well, who stated that PTSD can amount to a valid external factor for a claim of sane automatism.<sup>72</sup>

What is interesting to note is by accepting PTSD as a factor in automatism, the court in *T* effectively recognised it as a potential trigger for involuntariness, despite not acknowledging the significance of the voluntariness requirement in law. However, there are particular statements within the judgment that suggest the focus was on consciousness rather than voluntariness, in a similar way to that in *Murray*, one of the Australian trigger slip cases. In particular, the court held that:

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<sup>67</sup> In Melissa Hamilton, ‘Reinvigorating *Actus Reus*: The Case for Involuntary Actions by Veterans with Post-Traumatic Stress Disorder’ (2011) 16 *Berkley Journal of Criminal Law* 340, 359 (emphasis added). The focus on consciousness will become apparent throughout the remainder of the section.

<sup>68</sup> *R v T* [1990] Crim LR 256.

<sup>69</sup> *ibid* 257.

<sup>70</sup> *ibid*.

<sup>71</sup> *ibid* 258.

<sup>72</sup> Law Commission (n 11) para 5.47(2).

If T, for whatever reason, was not acting with a *conscious mind or will*, she would *have* to be acquitted and the only question would then be whether she should be found simply not guilty, or not guilty by reason of insanity.<sup>73</sup>

Thus, the categorisation of T as an automaton seemed to have rested primarily on her lack of consciousness, as opposed to her involuntariness. This is problematic, for it implies that the two concepts can be equated, when as we will see in the following chapters, it is not entirely clear whether they are the same. While it can be argued that most people who move unconsciously are involuntary, not everyone who is involuntary is necessarily unconscious, as is the case with reflexes, spasms etc.<sup>74</sup> Alternatively, it may be that courts view automatism as a wider doctrine that covers both cases of unconscious conduct and involuntariness.<sup>75</sup> This would also explain why the presumption to be rebutted in cases of automatism is one of mental capacity, rather than voluntariness, even though there is no evidence that voluntariness should be linked to mental capacity.

The reliance on consciousness in addition to voluntariness can also be seen in different jurisdictions. For example, in the Canadian case of *Rabey*,<sup>76</sup> the defendant violently assaulted the victim due to a psychological blow caused by the victim not reciprocating in his romantic advances. The court adopted a similar approach to the one in *T* in terms of the voluntariness of the defendant. Both the majority and the dissenting judges acknowledged that no act should be punished if committed involuntarily. However, going beyond engaging in a discussion on the type of automatism at play, the dissenting opinion also focused on the defendant's consciousness at

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<sup>73</sup> *R v T* [1990] Crim LR 256, 257 (emphasis added).

<sup>74</sup> This point will be further discussed in the following chapters.

<sup>75</sup> The uncertainty in respect of the relationship between consciousness and involuntariness has also been noted within legal scholarship. For instance, according to Loughnan, it is unclear whether claims of automatism centre around the involuntariness or the unconsciousness of the defendant. See Arlie Loughnan, *Manifest Madness: Mental Incapacity in Criminal Law* (OUP 2012) 126. The case law is also contradictory in this respect. See for instance *R v Cottle* [1958] NZLR 999, (Gresson P): 'With respect, I would myself prefer to explain automatism simply as action without any knowledge of acting, or action with no consciousness of doing what was being done; and Viscount Kilmuir in *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 401, citing the earlier decision in the Court of Appeal: 'automatism "[...] means unconscious, involuntary action"'. Here, it is not clear whether unconsciousness and involuntariness are interchangeable concepts or not. In the case of *Coley*, Hughes LJ stated that a person conscious in the belief that they are character, while irrational or unaware of what they are doing, will still be categorised as voluntary. See *Coley* [2013] EWCA Crim 233, [23] (Hughes LJ).

<sup>76</sup> *Rabey v R* [1980] 2 SCR 513.

the time. In particular, it emphasised that ‘consciousness is a *sine qua non* to criminal liability’.<sup>77</sup> Moreover, due to the transient nature of the dissociation, there were no policy objectives served in a finding of insanity.<sup>78</sup> For the dissenting judges, the fact that there was no fault or negligence attributable to the defendant, coupled with the loss of consciousness, sufficed to acquit him.<sup>79</sup> However, similar to the case of *T*, the court did not refer to the relationship between voluntariness and consciousness, limiting itself to a somewhat vague guidance on the issue.

Loss of consciousness also seems to be essential in US cases dealing with PTSD or emotional trauma, where courts have actively used the terminology of ‘unconsciousness defence’.<sup>80</sup> For instance, in *People v Lisnow*,<sup>81</sup> the defendant was acquitted following an apparent unconscious assault during which he was experiencing a dissociative state triggered by a continuing traumatic neurosis related to his combat experience in Vietnam. Later, in *State v Fields*,<sup>82</sup> the court confirmed that dissociation stemming from PTSD is an acceptable basis for raising the ‘unconsciousness defense’. Again, no specific link to voluntariness was made. Furthermore, this ambiguous approach is also present in other categories of cases, such as those involving sleepwalking.<sup>83</sup>

The discussion so far suggests that, where PTSD is involved, courts do acknowledge it as an example of a trigger leading to involuntariness. However, the guidance provided is particularly vague, with a focus on consciousness but without clarifying whether it is meant to reflect voluntariness, and with no further detail as to what consciousness means in a legal context. For instance, one could well describe movement arising out of a psychotic episode as conscious in the sense of a defendant being in control of and aware of performing bodily movements.<sup>84</sup> At the same time, consciousness could relate to comprehending the nature of one’s actions or being

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<sup>77</sup> *ibid* 545 (Martland, Ritchie, Pigeon and Beetz JJ).

<sup>78</sup> *ibid* 546.

<sup>79</sup> *ibid* (Dickson, Estey and McIntyre JJ).

<sup>80</sup> A ‘bodily movement during unconsciousness’ is also listed in s.2.01(2)(b) of the MPC as an example of involuntary behaviour.

<sup>81</sup> *People v Lisnow* (1978) 151 Cal Rptr 621.

<sup>82</sup> *State v Fields* [1989] 376 S.E.2d 740, 743 (Whichard, Justice).

<sup>83</sup> See Subsection 6.

<sup>84</sup> *Coley* [2013] EWCA Crim 233 [23] (Hughes LJ).

aware of making choices. In the case of PTSD, it seems that the cause of the involuntary movements and the blameworthiness of the defendants take precedence over the need to ensure consistency between categories of cases. For example, on one hand there are defendants experiencing dissociative states as a result of rape, like *T*, and on the other hand there are those who consume cannabis and enter a psychotic episode with a similar separation between body and psyche, like the defendant in *Coley*.<sup>85</sup> Moreover, the focus on consciousness implies that judges rely on certain philosophical and cognitive assumptions regarding the nature of voluntary movements, which are not exactly clear within case law.<sup>86</sup>

## 6. Sleepwalking

This is a unique category of cases, as it is discussed in courts under both sane and insane automatism, as well as the voluntariness requirement. Sleepwalking, also known as somnambulism, is a sleeping disorder which manifests itself in episodes of motor activity such as walking, but also driving and even violence or other inappropriate actions that should not normally occur during sleep.<sup>87</sup> It is also becoming increasingly regarded as a type of state dissociation,<sup>88</sup> which suggests that it raises similar issues to the ones related to PTSD. In England and Wales, sleepwalking had originally been categorised under the heading of sane automatism and associated with cases of concussion or blackout.<sup>89</sup> Subsequently, in *Burgess*,<sup>90</sup> the condition

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<sup>85</sup> Within the psychiatric community it is commonly argued that dissociative disorders share similar symptoms with psychotic ones. See C Deville, C Moeglin and O Sentissi, 'Dissociative Disorders: Between Neurosis and Psychosis' (2014) *Case Reports in Psychiatry*, available at: <<http://dx.doi.org/10.1155/2014/425892>> accessed 05 March 2018. Notwithstanding that the defendant in *Coley* was at fault for voluntarily consuming drugs, the court rejected automatism not based on the prior fault principle but due to the defendant not having been involuntary to begin with.

<sup>86</sup> These assumptions are further investigated in Chapters 3 and 4.

<sup>87</sup> Shreeya Popat and William Winslade, 'While You Were Sleepwalking: Science and Neurobiology of Sleep Disorders and the Enigma of Legal Responsibility of Violence During Parasomnia' (2015) 8 *Neuroethics* 203, 205.

<sup>88</sup> Omri Berger, Dale E McNeil, and Rene'e L Binder, 'PTSD as a Criminal Defense: A Review of Case Law' (2012) 40 *J Am Acad Psychiatry Law* 509, 509.

<sup>89</sup> *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 409 (Lord Denning). See also *Hill v Baxter* [1958] 1 QB 277, 284 (Devlin J). Unfortunately, neither court explained what made concussions and sleepwalking similar.

<sup>90</sup> *R v Burgess* [1991] 2 QB 92, 100 (Lord Lane CJ).

was perceived as resulting from an internal factor and the court held that sleepwalking should be classified as insane automatism. Apart from the distinction between sane and insane automatism, what is important to note is that, similar to the PTSD category, consciousness seems to have played a significant role in courts' assessments. For instance, in *Burgess*, Lord Lane CJ focused on the defendant's lack of 'conscious motivation'.<sup>91</sup> The movements were 'purposive rather than the result simply of muscular spasm, but without his being *consciously* aware of what he was doing'.<sup>92</sup> However, no mention was made as to why consciousness had a role to play in findings of automatism, much in the same way as the court in *T*.<sup>93</sup>

In contrast with England and Wales, the approach in Canada is slightly different in terms of the type of automatism at play. Specifically, in *Parks*,<sup>94</sup> it was held that somnambulism can arise from a combination of both internal and external sources such as genetic susceptibility and ordinary stress, which can ultimately lead to an effect similar to a concussion, an accepted external cause of sane automatism. However, when it comes to the nature of the movements, it appears that the court was similarly reliant on the idea of consciousness. For instance, the judges cited with approval the dissent of Dickson J in *Rabey*, where it was argued that automatism should be available 'whenever there is evidence of unconsciousness throughout the commission of the crime that cannot be attributed to fault or negligence'.<sup>95</sup> Similarly, no specific guidance was given as to the interplay between consciousness and voluntariness.

In Australia, the relationship between sleep and voluntariness appears clearer. Under the MCC, conduct 'performed during sleep or unconsciousness' should not be deemed voluntary.<sup>96</sup> This categorisation is also supported within case law. For instance, in *Jiminez v The Queen*,<sup>97</sup> the High Court of Australia was asked to consider whether a person driving while asleep could be categorised as voluntary. Here, the court stated that once the defendant fell asleep, the movements

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<sup>91</sup> *ibid* 98 (Lord Lane CJ) (emphasis added).

<sup>92</sup> *ibid* (emphasis added).

<sup>93</sup> *R v T* [1990] Crim LR 256.

<sup>94</sup> *Parks* [1992] 2 SCR 871, 902-903 (La Forest J).

<sup>95</sup> *ibid* 905.

<sup>96</sup> MCC, s.4.2(3)(b).

<sup>97</sup> *Jiminez v The Queen* (1992) 173 CLR 572.

were no longer voluntary and he could not be responsible for dangerous driving.<sup>98</sup> Specifically, culpable driving was ‘no different to any other offence and requires the driving, which is part of the offence, to be *a conscious and voluntary act*’.<sup>99</sup> However, similar to the cases discussed above, no clear explanation was provided as to the relationship between consciousness and voluntariness.

In the US, the relationship between sleep and involuntariness seems to be clearer. Under the MPC, ‘sleep’ is listed as an example of involuntary movement, together with other bodily movements performed while unconscious.<sup>100</sup> The MPC classification of somnambulism as involuntary has been met with scepticism, with some authors arguing that sleepwalking is guided by the person’s intentions and is fairly easy to diagnose and prevent.<sup>101</sup> However, where defendants were acquitted, this has not necessarily been done on the basis of the defendant’s involuntariness, but rather on the unconscious nature of the behaviour overall. For instance, in *Fain v Commonwealth*,<sup>102</sup> the defendant was acquitted due to his sleepwalking, having been unconscious at the time of shooting the victim and not able to understand what he was doing.

Other cases in the US have established a stronger link between unconsciousness and voluntariness, but without much guidance as to the meaning of consciousness. In *Bradley v State*,<sup>103</sup> it was argued that ‘a sleepwalker [...] is more or less unconscious of his outwards relations, none of his acts [...] can be rightfully be imputed to him as crimes’. Similarly, in *People v Sedeno*,<sup>104</sup> it was argued that an unconscious act is an act committed as a result of ‘somnambulism, a blow to the head, or similar cause’ to the point that such a person cannot be regarded as ‘volitional’. This reference suggests that there are several philosophical implications associated with the voluntariness requirement. Moreover, the approach seems to create an

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<sup>98</sup> *ibid* [22] (Mason CJ, Brenna, Deane, Dawson, Toohey and Gaudron JJ).

<sup>99</sup> *ibid* [9] (emphasis added).

<sup>100</sup> US MPC s.2.01(2)(c).

<sup>101</sup> Mike Horn, ‘A Rude Awakening: What to Do with the Sleepwalking Defense?’ (2004) 1 BCLRev 149, 158-159. Here, the author cites philosophical and psychological rather than legal debates surrounding the nature of sleepwalking. This issue is further discussed in the following chapter.

<sup>102</sup> *Fain v Commonwealth* (1879) 78 Ky. 183.

<sup>103</sup> *Bradley v State* 277 SW 147 (Tex. Crim. App. 1925), 148.

<sup>104</sup> *People v Sedeno* 10 Cal. 3d 703, 717 (Wright CJ). The reference to volition is indicative of the relationship with philosophical concepts. This will be further developed in the following chapter.

inconsistency. Whereas *Bradley* was found criminally insane, the other defendants were acquitted under a ‘defence’ of unconsciousness. The contrast resembles the issues present in England and Canada in regard to sane and insane automatism. What is clear though is that, regardless of the distinction, movements performed under sleep are clearly regarded as involuntary within legal frameworks.

The focus on consciousness could be less contentious when dealing with cases of epilepsy, for example, where the defendant is clearly unconscious and the link between the mind and the body can be described as severed.<sup>105</sup> However, the emphasis on the notion in cases of sleepwalking raises concerns similar to PTSD cases or those involving dissociative states. First, it is not exactly clear what courts look for when referring to consciousness, providing guidance that is relatively vague. Second, the approach is not consistent across categories. The key notion of consciousness emerges here, underpinning the “involuntariness” of those acting in a state of dissociation. This can be compared with those who move consciously but without voluntariness in trigger slip cases, who in most cases are held liable for their movement. What appears to be central to many of these decisions is the perceived blameworthiness of defendants in different settings. Those suffering from somnambulism are more easily regarded as having been involuntary compared to those who move involuntarily in the context of a morally blameworthy choice.

## 7. Hypnosis

Hypnosis is an interesting example in discussions surrounding the nature of the voluntariness requirement, particularly given that it involves complex and goal-directed movements, as opposed to reflexes, spasms etc.<sup>106</sup> Subjects often react to hypnotic suggestions by experiencing feelings involuntariness, e.g. an extended arm does not simply ‘*feel* heavy’, it becomes ‘heavier *all by*

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<sup>105</sup> Notwithstanding that the scientific community has consistently criticised Cartesian dualism, the distinction between the mind and the body still stands at the core of criminal legal frameworks. Cases of epilepsy are a more obvious example of the defendant acting under complete unconsciousness and in which there is no connection made between the mind and the body. See also *R v Sullivan* [1984] AC 156.

<sup>106</sup> For further information on the relationship between hypnosis and voluntariness see Chapter 5.

*itself*, and such an experience is often the most striking feature a hypnotised person reports.<sup>107</sup> In England and Wales, courts have not yet encountered defendants who have committed crimes under a state of hypnosis. However, there have been suggestions, albeit obiter, in cases where the automatism ‘defence’ was raised. For instance, in *Quick*,<sup>108</sup> Lawton LJ argued that a transitory malfunctioning of the mind caused by an external factor such as a hypnotic influence would suffice for a claim of automatism, but did not expand further on the reasons why. Similarly, in *Coley*,<sup>109</sup> Lord Justice Hughes stated that ‘the man under hypnosis’ acts under a ‘complete destruction of voluntary control’ as opposed to irrationally and as such, acts under a state of automatism but again, no mention was made as to why exactly. A similar approach was also taken by the Law Commission, who did not explain its decision to include hypnotic influence as one of the limited bases for acquittal under its proposal for a redefined automatism ‘defence’.<sup>110</sup>

Despite not dealing with it specifically, it seems that courts would entertain a claim of involuntariness arising during a hypnotic trance as a case of automatism. However, neither case law, nor law-reforming bodies explain why this is particularly the case. For instance, the court in *Coley* could have clarified the reasons for describing hypnotic trances as destroying voluntary control, in contrast with cases where similarly goal-directed but involuntary movement, e.g. driving without awareness, would not be regarded as destroying control.<sup>111</sup> Whilst it is significant that hypnosis is categorised as a trigger for involuntary movement, it seems that the legal criteria for the application of the law are undermined by inconsistency in the approach of the courts.

In the US, hypnosis is dealt with under the voluntariness requirement. According to the MPC, ‘conduct during hypnosis or resulting from hypnotic suggestion’ is not voluntary for the purposes of assigning criminal responsibility.<sup>112</sup> However, courts have been sceptical in acknowledging the

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<sup>107</sup> John F Kihlstrom, ‘The Domain of Hypnosis, Revisited’ in Michael R Nash and Amanda J Barnier (eds), *The Oxford Handbook of Hypnosis: Theory, Research and Practice* (2008 OUP) 33.

<sup>108</sup> *R v Quick* [1973] QB 910, 923 (Lawton LJ).

<sup>109</sup> *R v Coley* [2013] EWCA Crim 233 [22] (Hughes LJ).

<sup>110</sup> Law Commission (n 11) para 5.106.

<sup>111</sup> This issue is further explored in subsection 9, on non-dangerous intoxicants.

<sup>112</sup> MPC s.2.01(2)(d). The same wording is also used in s.45-2-101(33)(c) of the Montana Code Annotated 2017.

potential for involuntariness here. In *People v Marsh*,<sup>113</sup> the appellant claimed that he had escaped prison whilst under a hypnotic trance given by a friend who told him to ‘go back where he ... was having a good time’. In *United States v McCollum*,<sup>114</sup> the defendant, allegedly in a state of hypnosis, went to a bank, approached an employee and handed him an envelope containing a request for \$100,000. However, neither case referenced the MPC and judges did not entertain the possibility that hypnosis may have led to involuntary movements. Specifically, both courts approached the claims with scepticism and refused the defendants’ assertions that they had not been voluntary, denying the possibility for expert witnesses to provide evidence in that regard.

Given that the defendant in *Marsh* was already in prison for a different offence, and since *McCollum* had been convicted of robbery before, it could be argued that the courts focused more on the incredulous nature of the events rather than engaging with the requirement. Thus, whilst the classification of hypnotic movements as involuntary is enshrined within the MPC, it is not entirely clear whether it would be applied in practice.<sup>115</sup> This suggests that, despite accepting hypnosis as a valid example, courts in England and Wales might act with a similar scepticism as judges in the US, especially since claims of automatism have been significantly restricted in the past decades.<sup>116</sup>

Similar to England and Wales, courts in Canada seem to have accepted hypnosis as an example of sane automatism. For example, in *Book*,<sup>117</sup> the defendant had been hypnotised at a bar but attempts to ‘de-hypnotise’ him were later unsuccessful. He was subsequently charged with impaired driving. At the trial, the court was satisfied that the defendant had experienced ‘total amnesia’, ‘a deep trance’ and ‘a robot-like state of automatism’ during which he might not have realised he was driving a car.<sup>118</sup> Moreover, the prosecution had failed to prove beyond a reasonable doubt that when the defendant started driving, he was either acting voluntarily,

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<sup>113</sup> *People v Marsh* (1959) 170 Cal.App.2d 284, 285 (Griffin PJ).

<sup>114</sup> *United States v McCollum* (1984) 732 F.2d 1419.

<sup>115</sup> *Rogers v State* (2003) 105 S.W.3d 630, [14] (Cochran J).

<sup>116</sup> See Chapter 1.1.b. for further details on the narrowing of the application of automatism.

<sup>117</sup> *R v Book* [1999] ABPC 149.

<sup>118</sup> *ibid* [12].

intending his acts, or that the automatism was of the insane kind.<sup>119</sup> Thus, whilst not expanding on the reasons why acts committed under hypnosis are categorised under sane automatism, the court made it clear that hypnosis could be accepted as an example of involuntary movement.

Hypnosis is unique in the sense that compared to situational liability or trigger slip cases, courts and statutory codes clearly acknowledge it as an example of involuntariness. However, a lack of detail on the type and degree of hypnotic movement still remains, with courts not willing to engage with the notion extensively in the context of the voluntariness requirement. Specifically, no mention is made by either courts or law-reforming bodies as to what makes hypnosis conducive to involuntary movements, beyond assertions that they can lead to a destruction of voluntary control or involve a robot-like state. This approach becomes problematic when comparing hypnosis to other categories of similar, goal-directed movements, but which do not fall within the category of involuntariness. Because of the lack of detail regarding hypnotic movements, such a category of cases may best be suited as a case study to test the applicability of the test of voluntariness.<sup>120</sup>

## 8. Dangerous Intoxicants

A substantial proportion of criminal offences are committed by people under the influence of alcohol and/or drugs.<sup>121</sup> The legal position on dangerous substances is that, where intoxicated defendants are directly responsible and at fault for becoming intoxicated, they should not be exempt from criminal culpability.<sup>122</sup> Thus, where such offences lack the requisite *mens rea* for the offence, the law still finds defendants liable under the doctrine of prior fault.<sup>123</sup> Nevertheless,

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<sup>119</sup> *ibid* [14].

<sup>120</sup> See Chapter 5.

<sup>121</sup> HM Keating, SR Kyd Cunningham, T Elliott, and MA Walters, *Clarkson and Keating: Criminal Law* (8<sup>th</sup> ed, Sweet and Maxwell 2014) 428.

<sup>122</sup> See for example Law Commission (n 11) para 3.15.

<sup>123</sup> According to prior-fault intoxication rules, where defendants claim that they did not act with the relevant *mens rea*, the law operates to construct liability by replacing the missing mental element with the fault of becoming intoxicated in the first place. In other words, where the defendant does not satisfy the *mens rea* required at the time of the offence (T2), the earlier fault at T1 replaces the missing element at T2.

in some cases, the intoxication can be so acute or the reaction to a substance can be severe enough to give rise to involuntariness.

Within case law, the approach taken in cases of involuntariness triggered by the consumption of dangerous intoxicants is similar to that taken where defendants lack *mens rea* due to intoxication. Here, the law is primarily concerned with the defendant's level of blameworthiness, under the prior fault rules. For instance, in *Bratty*,<sup>124</sup> Lord Denning argued that an involuntariness arising from a state of drunkenness should be dealt with by reference to the basic vs. specific intent distinction that is applied in all cases of prior fault intoxication. A similar approach was taken in *Lipman*,<sup>125</sup> where Lord Denning's statement in *Bratty* was acknowledged and applied to the case of self-induced drug intoxication. Here, the defendant experienced a hallucinogenic trip as a result of taking LSD, which resulted in the death of the victim by asphyxiation. While not directly relevant to the way in which automatism and/or voluntariness have been defined, it should be noted that the approach taken by courts in such instances has not always been as clear and consistent as in other cases of prior fault intoxication.<sup>126</sup> In fact, it appears to be more stringent than the approach taken in those cases in which defendants lack *mens rea* due to intoxication.<sup>127</sup>

For present purposes, it is important to address the way in which courts have rationalised automatism in the context of prior fault. For instance, *Coley* involved a psychotic episode triggered by cannabis in which the defendant nearly killed his neighbour's partner.<sup>128</sup> This occurred under an alleged blackout, with the defendant having no recollection of the events. Here, the court emphasised that rather than referring to 'wholly involuntary movement', the 'better

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<sup>124</sup> *Bratty v Attorney General of Northern Ireland* [1963] AC 386, 410 (Lord Denning). Following *DPP v Beard* [1920] AC 479; and *Attorney General of Northern Ireland v Gallagher (Patrick)* [1963] AC 349; and *DPP v Majewski* [1977] 1 AC 433, prior-fault intoxication only constructs liability for offences of basic intent, but not specific intent. In its simplest form, the distinction between the two lies in that offences that cannot be committed recklessly are categorised as specific intent offences. For instance, an intoxicated defendant cannot be found guilty of murder due to it requiring an intention to kill or cause grievous bodily harm. Instead, they can be found guilty of the basic intent offence of manslaughter. Such distinction has led to multiple categorisations of the intoxication rules, as both inculcating in the case of basic intent offences and mitigating in relation to specific intent offences.

<sup>125</sup> *R v Lipman (Robert)* [1970] 1 QB 152.

<sup>126</sup> This relates particularly to the level of foresight required from the defendant in respect of the effect that certain substances may have on their voluntariness. See next section; and Chapter 6.2.c.

<sup>127</sup> See Subsection 9.

<sup>128</sup> *Coley* [2013] EWCA Crim 233.

expression' should be 'complete destruction of voluntary control'.<sup>129</sup> Here the judges seemed to associate voluntariness with control. Equally, they also seemed to place an emphasis on consciousness. Specifically, the defendant's behaviour was deemed not to be automatic, but conscious 'in the sense that they are aware of what they do physically', i.e. 'conscious in the belief that he is a character'.<sup>130</sup> However, it is not entirely clear whether the court would have issued such a stringent rationalisation of involuntariness had the defendant not been morally culpable. For instance, apart from prior fault, defendants suffering from PTSD or those who move involuntarily during sleepwalking do not seem to differ considerably in their experience. However, in developing a strict standard, there is a potential for inconsistency across categories in the way courts approach the issue of (in)voluntariness. It would have been preferable for courts not to be influenced by the blameworthiness of the defendant in their analysis of whether the movements were involuntary or not, and only assess the culpability of the defendant in becoming intoxicated once involuntariness was established. This approach provides an additional warning as to the inappropriate classification of automatism as a defence. Under this categorisation, it is easier for courts to justify strict rules when seeking to block defences rather than having to utilise prior fault to construct the lacking element of voluntariness. In other words, it is easier to adopt a terminology of barring acquittal due to fault as opposed to one of constructing liability, as it turns the evaluation into a wider moral assessment rather than a factual one, solely limited to the involuntariness in question.<sup>131</sup>

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<sup>129</sup> *ibid* [22] (LJ Hughes).

<sup>130</sup> *ibid* [23].

<sup>131</sup> For further detail on the implication of categorising automatism as a defence in the context of prior fault, see J J Child and Alan Reed, 'Automatism is Never a Defence' (2014) 65 NILQ 167. The fact that courts engage in a moral assessment has also been identified by Loughnan and Wake, who argued that courts utilise 'moral culpability lines' as a way to demarcate the limits of the automatism 'defence', since the doctrine is the most 'overtly morally-evaluative part of the "mental incapacity terrain"'. See Arlie Loughnan and Nicola Wake, 'Of Blurred Boundaries and Prior Fault' in Alan Reed and Michael Bohlander (eds), *General Defences in Criminal Law: Domestic and Comparative Perspectives* (Ashgate 2014), 119-120; and Loughnan (n 70) 132. However, this thesis takes the view that moral culpability should only play a role in cases of prior fault involuntariness, and only once the involuntariness of the defendant has been established.

An interesting contrast can be made between *Coley* and *Daviault*,<sup>132</sup> a case decided by the Canadian Supreme Court. Here, the defendant allegedly raped the victim whilst under an acute state of intoxication. However, the court did not apply the prior fault rules and acquitted the defendant based on his involuntariness, which was deemed to go beyond the inability to form the *mens rea* of the offence. In particular, the judges acknowledged the relevance of voluntariness, arguing that certain states of intoxication could be so acute as to render a person unable to perform a 'willed act'.<sup>133</sup> The decision attracted widespread criticism on the basis that the defendant avoided liability for rape, which ultimately led to Parliament enacting legislation that prevented such a verdict. Specifically, s.33.1(1) of the Criminal Code of Canada now states that it is not possible to use intoxication as a 'defence' for lacking 'the general intent or the voluntariness required to commit the offence'. Most importantly, the legislature emphasised that regardless of whether a person was aware or able to consciously control their movements, intoxication could not be used as a way to escape liability when that interfered with the bodily integrity of another person.<sup>134</sup> Unfortunately, neither courts nor legislators provided sufficient clarification on the meaning of voluntariness in law, beyond the association with notions of consciousness and control.

In Scotland, the court in *Ross v HM Advocate*<sup>135</sup> had to address the relevance of involuntary intoxication for a finding of automatism. In this case, the defendant appealed against a conviction for attempted murder, claiming that, at the time, his lager had been spiked without his knowledge with temazepam and LSD. Lord Hope stated that the defence of automatism was based on 'an inability to form *mens rea* due to some external factor which was outwith the appellant's control and which he was not bound to foresee'.<sup>136</sup> Compared to cases such as those from England and Wales,<sup>137</sup> the court was not concerned about the possibility of defendants making false claims.

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<sup>132</sup> *R v Daviault* [1994] 3 SCR 63.

<sup>133</sup> *ibid* 77 (Cory J). The distinction between acts and movements is addressed in Chapter 3.2.

<sup>134</sup> Criminal Code of Canada, RSC 1985, cC-46, s.33.1(2).

<sup>135</sup> [1990] JC 210.

<sup>136</sup> *ibid* 218 (Lord Hope). This argues against viewing voluntariness as an element of the *mens rea* of an offence. For further detail see Chapter 3.3.

<sup>137</sup> In particular, see next section, on non-dangerous intoxicants.

Instead, it argued that sufficient safeguards are available to mitigate this risk. Such safeguards related to the requirements that the external trigger of automatism must not be self-inflicted, that the trigger is not one which the defendant could have foreseen, and that the trigger ‘must have resulted in a *total alienation of reason* amounting to a *complete absence of self-control*’.<sup>138</sup> In *Cardle v Mulrainey*,<sup>139</sup> the ability to reason was deemed to be concerned mostly with the ‘total alienation of the accused's mental faculties of reasoning and of understanding what he is doing’, whereas the inability to exert self-control related more to the ‘inability to complete the reasoning process’. It seems that in such cases, the focus was not necessarily on physical capacities, but rather the ability to tell right from wrong, understand the consequences of one’s actions etc.<sup>140</sup> In this respect, the statement in *Ross* aligned automatism with the then definition of insanity based on ‘absolute alienation of reason’.<sup>141</sup> However, given that both *Ross* and *Cardle* concerned unintentional intoxication, it is not clear whether the court would have been influenced by the blameworthiness of the defendant had they intentionally consumed alcohol or drugs.

Overall, the rationalisation adopted by courts, such as that taken in *Coley*, is somewhat puzzling, when compared to cases related to PTSD, sleepwalking or hypnosis. For example, the defendant in *T* was found to be involuntary but equally conscious in the sense of being aware of their physical movement, and still exercised a degree of control, in the sense of it not being ‘completely destroyed’. However, it is uncertain whether what is now the leading case on automatism in England and Wales would have promoted such a strict standard had the defendant not been culpable in losing voluntariness. Such a narrow application of automatism, where nothing short of the destruction of control would lead to an acquittal, will be taken regardless of whether or not the defendant was at fault for becoming involuntary. This also has evidential implications, for it makes it virtually impossible for defendants to meet the evidential burden needed for the

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<sup>138</sup> *Ross v HM Advocate* [1990] JC 210, 218 (Lord Justice-General [Hope]).

<sup>139</sup> [1992] SCCR 658, 668 (Lord Justice-General).

<sup>140</sup> This thesis adopts the view that voluntariness should be solely concerned with a person’s physical ability to move. For further information, see Chapter 3.

<sup>141</sup> Since then, insanity has been replaced with a ‘mental disorder’ defence. For further detail, see Claire McDiarmid, ‘How Do They Do That? Automatism, Coercion, Necessity, and *Mens Rea* in Scots Criminal Law’ in Reed and Bohlander (n 122) 161.

prosecution to prove voluntariness beyond a reasonable doubt. At the same time, in developing a test based on the complete destruction of control, the court did not clarify whether a loss of control could be equated with a loss of voluntariness, or whether the remit of the automatism ‘defence’ extended beyond the issue of voluntariness. This approach is present in other jurisdictions as well. For instance, the fact that legislators in Canada have addressed the issue of automatism resulting from intoxication does not reflect a particular understanding of the voluntariness requirement, beyond mere associations to ideas of control or consciousness. Ultimately, the way in which voluntariness is assessed appears to rest more on the defendant’s moral blameworthiness and matters of public policy, rather than on legal principles, similar to trigger slip cases. In most cases, the issue is also intensified by the application of automatism as an excusatory defence, inviting assessments regarding the defendant’s culpable behaviour overall, rather than just their voluntariness.

## 9. Non-Dangerous Intoxicants

Generally, courts distinguish dangerous from non-dangerous intoxicants in the application of prior fault rules. Whilst the loss of voluntariness arguably arises and manifests itself similarly to that triggered by dangerous substances, the law treats defendants distinctly. For instance, in *Hardie*,<sup>142</sup> a case which involved the ingestion of Valium, the court placed an emphasis on the defendant not being aware of the risks associated with the drug, as well as the lack of general evidence that Valium could make a person aggressive or unable to understand the risks to others.<sup>143</sup> Thus, the court here drew a distinction between dangerous and non-dangerous intoxicants, stating that the latter does not raise a conclusive presumption that the prior fault rules apply, including cases where the administration of the intoxicants leads to automatism.<sup>144</sup>

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<sup>142</sup> *R v Hardie* [1985] 1 WLR 64.

<sup>143</sup> *ibid* 69 (Parker LJ).

<sup>144</sup> *ibid* 70.

A paradigm example of cases involving non-dangerous intoxicants involves hypoglycaemia, where people suffering from diabetes can develop a reaction to insulin to the point that they experience confusion, unusual movements, or even seizures.<sup>145</sup> Such movements raise issues regarding the voluntariness of an individual and are particularly dangerous whilst driving.<sup>146</sup> Similar symptoms can also arise in episodes of hyperglycaemia, for example where people forget to administer insulin. These episodes can involve drowsiness, confusion, blurry vision, but also unconsciousness.<sup>147</sup> When a particular offence is committed under either of the two circumstances, the law appears to acknowledge that not all defendants will have moved voluntarily.

From a legal perspective, it seems that both hypoglycaemia and hyperglycaemia are accepted as examples of states potentially leading to involuntariness, albeit under distinct headings. Particularly, a distinction is made between those who forget to administer themselves insulin and those who develop an adverse reaction to the drug. On one hand involuntariness caused by a state of hyperglycaemia is triggered by an internal factor and leads to a finding of insanity – ‘disease of the mind’.<sup>148</sup> On the other hand, when insulin, an external factor, leads to involuntary movement, generally under a state of hypoglycaemia, the law regards this as a case of non-insane automatism. This latter scenario ‘results in an outright acquittal, provided there is no fault on the defendant’s part.’<sup>149</sup> Despite the fact that the distinction has been extensively criticised for its illogical nature,<sup>150</sup> it is clear that both cases are seen by courts as potentially leading to involuntariness.

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<sup>145</sup> NHS, ‘Low Blood Sugar (Hypoglycaemia)’ <<https://www.nhs.uk/conditions/low-blood-sugar-hypoglycaemia/>> accessed 27 April 2018.

<sup>146</sup> UK Government, ‘Hypoglycaemia and Driving’, <<https://www.gov.uk/hypoglycaemia-and-driving>> accessed 27 April 2018.

<sup>147</sup> Robert Ferry Jr., High Blood Sugar (Hyperglycemia) <[https://www.emedicinehealth.com/high\\_blood\\_sugar\\_hyperglycemia/article\\_em.htm#high\\_blood\\_sugar\\_symptoms](https://www.emedicinehealth.com/high_blood_sugar_hyperglycemia/article_em.htm#high_blood_sugar_symptoms)> accessed 27 April 2018.

<sup>148</sup> *R v Hennessy* [1989] 1 WLR 287, 291 (Lord Lane CJ).

<sup>149</sup> *R v Quick* [1973] QB 910, 922 (Lawton LJ).

<sup>150</sup> *R v Coley* [2013] EWCA Crim 233, [20] (Hughes LJ).

Much like other cases where the voluntariness of the defendant is in question, including dangerous intoxicants, courts dealing with diabetic defendants in England and Wales rely on alternative notions in order to establish whether automatism applies. In particular, an emphasis appears to be placed on the ability to control one's movements, as opposed to consciousness, as was the case with sleepwalking or PTSD. For instance, in *Watmore v Jenkins*,<sup>151</sup> a claim of automatism in relation to careless driving was dismissed on the grounds that there had not been 'a complete destruction of voluntary control' as the defendant 'continued to perform the functions of driving'. Similarly, in *Broome v Perkins*, the defendant had driven erratically for a few miles throughout an episode of hypoglycaemia that ultimately resulted in a collision.<sup>152</sup> The court there stated that:

When driving a motor vehicle, the driver's conscious mind receives signals from his eyes and ears, decides on the appropriate course of action as a result of those signals, and gives directions to the limbs to control the vehicle. *When a person's actions are involuntary and automatic his mind is not controlling or directing his limbs.*<sup>153</sup>

As such, because for sections of the journey, the defendant's 'mind' was in control of the limbs, his driving had not been involuntary.<sup>154</sup>

Automatism resulting from the ingestion of insulin or lack thereof suggests that the 'connection' between the mind and the body must be completely severed in order for a defendant to be acquitted. Apart from the narrow connection, this category of cases is complicated by the setting in which the offence occurs, i.e. driving, where separate considerations arise. For example, in *Hill v Baxter*, Pearson J listed four different scenarios in which a defendant would not be deemed to have been driving at all:

(1) [...] an epileptic fit, so that *he is unconscious* and there are merely spasmodic movements of his arms and legs. (2) [...] a state of coma and is *completely unconscious*. (3) He is *stunned* by a blow on the head from a stone which passing traffic has thrown up from the roadway. (4) He is attacked by a swarm of bees so

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<sup>151</sup> *Watmore v Jenkins* [1962] 2 QB 572, 586-587 (Winn J). Here, the court referred to the case of *Hill v Baxter* [1958] 1 QB 277, 286 (Pearson J): in order to succeed with a claim, the defendant must be 'rendered unconscious or otherwise incapacitated from controlling the car.' In contrast with *Watmore*, the case involved 'sudden illness' and not diabetes.

<sup>152</sup> *Broome v Perkins* (1987) 85 Cr App R 321.

<sup>153</sup> *ibid* 332 (Glidewell LJ) (emphasis added).

<sup>154</sup> *ibid* 333.

that he is [...] *prevented from exercising any directional control* over the vehicle.<sup>155</sup>

While it is quite clear that the degree of control plays an important part in driving, one issue with the aforementioned examples is that courts use the notions of ‘consciousness’ and ‘control’ interchangeably and with no explicit reference to the requirement of voluntariness, to the extent that it is not entirely certain which one of them accurately explains what it means to be (in)voluntary.<sup>156</sup>

An additional issue arising from non-dangerous intoxicants is the one of prior fault. A significant area that lacks clarity is the type of foresight required for a defendant to be denied the ‘defence’. On one hand, following *Quick*, the prior fault rules would apply where the loss of voluntariness at Time 2 (T2) could have objectively been foreseen at Time 1 (T1), i.e. where it ‘could have reasonably been foreseen as a result of either doing, or omitting to do *something*’.<sup>157</sup> On the other hand, there is the more lenient view that prior fault would solely apply where the person had subjectively foreseen at T1 the risk of becoming involuntary at T2. For instance, in *Bailey*,<sup>158</sup> Griffiths LJ stated that in contrast with alcohol or dangerous drugs, it is not common knowledge that a failure to eat after an insulin shot would lead to a loss of control. It was only if the defendant had been aware of the risk but deliberately ran or disregarded it that he would be found reckless.<sup>159</sup> This approach has also been confirmed by the Law Commission, who argued that subjective foresight, albeit in a broader sense than *Bailey*, should be required.<sup>160</sup> This means that the defendant must have ‘personally been *aware of the risk of that loss of control occurring* and had proceeded unreasonably to take that risk’.<sup>161</sup>

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<sup>155</sup> In *Hill v Baxter* [1958] 1 QB 277, 286. Pearson J (emphasis added).

<sup>156</sup> There is wide academic literature pointing towards the notion of control as the appropriate terminology. See Stanley Yeo, ‘Putting Voluntariness Back into Automatism’ [2001] 32 VUWLR 387; and Stanley Yeo, ‘Clarifying Automatism’ (2002) Int’l JL & Psychiatry 445; and Law Commission (n 11) para 5.2. This issue is further discussed in the following chapters.

<sup>157</sup> *Quick* [1973] QB 910, 922 (Lawton LJ).

<sup>158</sup> *R v Bailey* [1983] 1 WLR 760, 765 (Griffiths LJ). See also *R v Hardie* [1985] 1 WLR 64, where a similar argument was made in relation to the ingestion of diazepam.

<sup>159</sup> *ibid.*

<sup>160</sup> Law Commission (n 11) para 6.28. Contrast with the approach in *R v Bailey* 1 WLR 760, where the defendant must have been aware of the risk of unpredictable and uncontrollable conduct.

<sup>161</sup> *ibid* (emphasis added).

Such a contrasting approach seems unprincipled and arguably creates confusion as to which perspective is to be followed. Moreover, if the objective view is applied, it raises issues of judicial fairness and undermining of the principle of maximum certainty in cases where diabetic drivers shouldn't necessarily be criminalised. For instance, Rumbold and Wasik note the existence of a rare phenomenon of 'hypoglycaemic unawareness' in which the adrenaline discharge that usually triggers the warning signs of a crisis does not occur in time for a person to be aware of the symptoms.<sup>162</sup> In such cases, a person can be driving under severe mental impairment without ever having had the opportunity to foresee the risk attached to their behaviour.<sup>163</sup> However, following an objective foresight approach, such a defendant would be denied a claim the automatism.

The confusing approach regarding foresight of risk can be said to also have an impact on the relationship between automatism and the intoxication rules, particularly since cases of automatism concerning diabetic drivers involve the administering of insulin. Take the example of *Lipman*.<sup>164</sup> Here, the defendant was convicted of manslaughter, a basic intent offence, as his intoxication substituted the lack of voluntariness at T1. To contrast this, following the all-encompassing language in *Quick*, a diabetic defendant could theoretically be prosecuted for a specific intent offence if he lacks objective foresight.<sup>165</sup> This bizarre inconsistency has led Mackay to argue that if intoxication is correctly categorised as an external factor in automatism, then it should be treated on an equal basis with other factors.<sup>166</sup> Moreover, such a disparate approach only adds to the confusion and rather unprincipled understanding of the automatism doctrine, starting with the requisite level of control and the importance of moral blameworthiness in assessments of voluntariness.

Overall, the guidance provided by courts in cases involving non-dangerous intoxicants is relatively vague. On one hand, there is an acknowledgement that the automatism doctrine is

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<sup>162</sup> John Rumbold and Martin Wasik, 'Diabetic Drivers, Hypoglycaemic Unawareness, and Automatism' (2011) 11 CrimLR 863, 865.

<sup>163</sup> *ibid* 868.

<sup>164</sup> *R v Lipman* [1970] 1 QB 152.

<sup>165</sup> R D Mackay, 'Intoxication as a Factor in Automatism' [1982] CrimLR 146, 155.

<sup>166</sup> *ibid* 152. See also Child and Reed (n 122) 179-180.

applicable in such cases. On the other hand, no specific clarification is provided as to the definition of voluntariness. This leads to the emphasis being placed on alternative notions such as control and consciousness, which can generate inconsistency across categories of cases, as seen in the previous subsections. Moreover, the discrepancy in the approach to prior fault suggests that the defendant's level of blameworthiness in not managing their use of medication adequately does have a role to play in the criminalisation of involuntary movement, similar to cases of situational liability. Even if the subjective approach is to be preferred, as the Law Commission also confirmed,<sup>167</sup> this still does not resolve the main problems with this category of cases. For instance, why is foresight of unconsciousness enough to apply the prior fault rules, as opposed to foresight of unconsciousness leading to involuntariness? Equally, the categorisation of automatism as a defence makes it evidentially difficult to separate issues of voluntariness from those of prior fault. That is, rather than first ensuring that voluntariness has been completed as an element of the offence, with prior fault as a subsequent consideration, the approach taken is that of barring the application of a 'defence'.<sup>168</sup> Instead of using prior fault as a method of inculcation, to replace the missing element of voluntariness, the approach taken is that of 'punishing' individuals for creating the conditions of their 'defence'. This can potentially lead to over-criminalisation.<sup>169</sup>

## 10. Conclusion

Despite acknowledging the relevance of the voluntariness requirement or categorising certain triggers such as sleepwalking or PTSD under the heading of automatism, it seems that courts avoid explaining what is actually meant by voluntariness. Even where judges are explicit in their mentioning of the requirement of voluntariness, it is usually done by reference to alternative

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<sup>167</sup> Law Commission (n 11) para 6.28.

<sup>168</sup> Here, it is argued that, once an evidential burden is satisfied, the prosecution should first prove that the defendant had been voluntary. In the absence of voluntariness, the prosecution would then be entitled to prove the defendant's prior fault, to replace the missing element of the offence.

<sup>169</sup> For further information see Chapter 1.1.b.

language surrounding the notions of ‘control’ or ‘consciousness’. These new terms arise without any clarification as to whether they are meant to be synonymous with others. For example, there is no mention made in any of the categories as to what makes ‘control’ or ‘consciousness’ relevant to voluntariness or why they should be used as a standard for identifying voluntariness. The reference to alternative language also implies that courts approach the notions with a degree of certainty, when in fact this is not necessarily the case. In particular, such terms have various philosophical and neuroscientific foundations that can and should provide meaning to the way in which it is understood legally.<sup>170</sup> However, courts do not acknowledge or engage with these issues. Whether or not judges are aware of these foundations but choose not to discuss them, the potential for philosophy and neuroscience to provide clarification should not be ignored.

Notwithstanding the scarce reference to the voluntariness requirement, it seems that courts develop different standards across different categories of cases, according to the type of trigger or circumstance in which involuntariness arises. This is seen in trigger slip cases, as well as those involving driving offences or dangerous drugs, which often involve defendants making more blameworthy choices than the ones suffering from PTSD, sleepwalking, or being hypnotised. It is here where the role of the prior fault rules would appear central as an alternative route to liability, but the exact part it should play is unclear in several categories, particularly those related to drugs or other intoxicants. At the same time, the inconsistency between categories cannot be attributed solely to policy reasons. Particularly, cases involving non-dangerous drugs seem hard to reconcile with those in which, for example, the defendant is driving while under a hypnotic trance but is still able to move their limbs in a somewhat purposeful way. Here, what is sought is a ‘complete destruction of voluntary control’.<sup>171</sup> It is puzzling, however, that it was the same case which confirmed that movements committed under hypnosis are a valid example of involuntariness, when one could argue that bodily movements performed under a trance are as goal-directed as the ones under a hypoglycaemic state.<sup>172</sup> The same can also be said about

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<sup>170</sup> See Chapters 3 and 4.

<sup>171</sup> *R v Coley* [2013] EWCA Crim 233.

<sup>172</sup> In fact, the Canadian case of *R v Book* [1999] ABPC 149 involved a driving offence. However, the court did not engage in a discussion on the level of control needed for a finding of automatism.

sleepwalking, an automatism of the insane kind, which also consists of goal-directed movement. It appears that the law has progressed in a piecemeal fashion without any guiding principles as to when conduct is and is not voluntary.

The lack of definitions and the inconsistency across categories has the potential for cases to be treated differently for no principled reason. Furthermore, the absence of clarification as to how voluntariness should be identified leads to legal uncertainty and ambiguity as to the status and application of the requirement. However, the importance of clarity and certainty within the law should not be understated. Such a principle is instrumental in ensuring that there is fairness and consistency in the treatment of defendants. The severe curtailment of the doctrine of automatism, and particularly the alarmingly narrow mental connection required for the ‘defence’ to apply, could be attributed not just to policy reasons but also to a lack of understanding of the fundamental principles behind the notion of voluntariness. It is for this reason that the present thesis seeks to produce a statutory definition of voluntariness, which should be interpreted independently from existing case law, given the somewhat disorganised way in which the existing law on automatism and insanity (as it relates to voluntariness) has evolved. In other words, it is argued that the current law should be abolished and a new statutory definition should be introduced, which should be interpreted independently from the case law that has been developed so far. Certainly, while clarity and consistency is the primary goal here, it is acknowledged that the definition that will be developed within this study, like any statutory instrument, may suffer from being incomplete.<sup>173</sup>

However, the focus of the courts should be forward-looking, seeking to develop case law that interprets the definition in line with the meaning and significance, as explored in the present analysis. In this context, the following chapters will address disciplines outside law, specifically philosophy and neuroscience, in order to explore whether they can provide more complete definitions than existing statutory instruments and case law from common law jurisdictions. In

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<sup>173</sup> For further detail on the incomplete nature of statutory rules, see Eben Moglen and Richard J Pierce, Jr., ‘Sunstein’s New Canons: Choosing the Fictions of Statutory Interpretation’ (1990) 57 *The University of Chicago Law Review* 1203, 1205: ‘incompleteness is an essential feature of any system of statutory construction’.

this way, it is hoped that consistency between categories of cases is improved through the development of a definition of voluntariness.

## CHAPTER 3

### UNDERSTANDING VOLUNTARINESS IN A PHILOSOPHICAL CONTEXT

#### 1. Introduction

If we accept that, as a minimum condition of criminal responsibility, the defendant must have been voluntary, then any investigation into what it actually means to be voluntary should expect a broader account of the nature or the defining characteristics of the requirement. The previous chapter has analysed the way in which issues of voluntariness are addressed by courts or feature within statutory documents. However, as shown, the jurisprudence has not been consistent across categories, with instances of involuntariness being dealt with on a case by cases basis, rather than through the application of well-defined concepts. In addition, when courts do address the voluntariness of the actor in question, this is usually analysed loosely by reference to concepts such as control or consciousness. However, it is not entirely clear what such concepts mean for the law, nor is their relevance for the requirement of voluntariness explored in detail. In this context, to understand the foundational significance placed on these terms in court, but also to give them a consistent and robust meaning, the following chapter will expand the analysis beyond legal cases to address the way they are conceptualised within the philosophy of action. Based on this analysis, the chapter develops a provisional definition of voluntariness.

The philosophy of action (and the distinct discipline of neuroscience, a topic which is addressed in the following chapter) is central to our quest of understanding what voluntariness means and how it should be defined. As the name suggests, this area of investigation is concerned with the nature of human action and includes questions such as: ‘what counts as an action?’, ‘How is it initiated?’, and ‘what does it consist of?’.<sup>1</sup> Moreover, this discipline has long been used as a

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<sup>1</sup> See for example Carl Ginet, *On Action* (CUP 1990) ix; and Jonathan Dancy and Constantine Sandis, ‘Introduction to Part I’ in *Philosophy of Action: An Anthology* (Wiley Blackwell 2015).

source of theoretical support within legal theory. When it comes to existing literature, academics such as Michael Moore or R A Duff have tried to position or even criticise the act requirement in law using philosophical concepts. Here, voluntariness has played a crucial role, particularly in the frequent presentation of action as a willed bodily movement and the positioning of the voluntariness requirement as part of the *actus reus* of an offence.<sup>2</sup> At the same time, this philosophical debate has at times deterred efforts to codify the requirement. For instance, committees in both Australia and New Zealand have referenced philosophical intricacies as reasons for not clarifying concepts such as ‘conduct’ or ‘action’.<sup>3</sup> Such intricacies refer primarily to the ambiguous meaning that can be attributed to the notion of voluntariness, from ‘a particular attitude, desire, intention’ to ‘simple awareness’.<sup>4</sup> The issue of philosophical ambiguity can apply to case law as well for, as revealed in the previous chapter, judges often rely on alternative notions, but without providing sufficient justification for doing so.

At the same time, while the philosophy of action (often referred to as action theory) is an area of research that can contribute to a better understanding of the voluntariness requirement in criminal law, it is important to emphasise that it is beyond the scope of the present thesis to provide a thorough analysis of existing philosophical theories. To do so would leave little room to discuss remaining considerations needed for an analysis of voluntariness in law. In fact, notwithstanding the potential for philosophy to inform legal debates, it is still the case that the two disciplines are distinct. As Child argues, accounts of action in general should not be conflated with voluntary acts within criminal law, for to do so could lead to unneeded complexity, as well as open the floodgates for criticism from alternative theories of action.<sup>5</sup> In other words, favouring one

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<sup>2</sup> The position of the voluntariness requirement within the structure of offence elements is discussed in Section 3.

<sup>3</sup> See J J Child, ‘Defence of a Basic Voluntary Act Requirement in Criminal Law from Philosophies of Action’ (2021) 24 New Criminal Law Review; and New Zealand *Report on 1989 Crimes Bill* (1991) 9-12; and Australian Model Criminal Code, *Parliamentary Counsel’s Committee* (Commentary) s.202. See also Chapter 2.2.

<sup>4</sup> Law Commission, *Criminal Liability: Insanity and Automatism. A Discussion Paper* (2013) para A47. See also Law Commission, *Criminal Law: A Criminal Code for England and Wales. Volume 2: Commentary on Draft Criminal Code Bill* (Law Com No 177, 1989) para 11.1: ‘The word “involuntary” is not needed – happily, in view of the variable use to which it tends to be put’.

<sup>5</sup> Child (n 3) 7.

philosophical conceptualisation of action over another and equating it with its legal counterpart would leave it vulnerable to unnecessary attacks from philosophy. Similarly, Duff argues that we should make a distinction between voluntary acts in law and action as it is understood ordinarily.<sup>6</sup> In this context, the present chapter will survey existing literature, with a view to identify those aspects within action theory that can help define terms for the law, as well as unpack the normative benefits of implementing those terms within the legal understanding of voluntariness. Specifically, the remainder of this chapter will seek to answer the following research questions: What is the target of voluntariness? How does the philosophy of action conceptualise voluntariness? Which rationalisation best fits the descriptive and normative goals of the legal requirement?

The chapter will look to various potential conceptualisations of voluntariness. Specifically, it will address whether they are practically suitable as a model, but also whether they fulfil the liberal goals of the criminal law. Such goals relate primarily to the preservation of the autonomy and agency of individuals, particularly considering that the voluntariness requirement is generally thought of as ‘the foundation of moral responsibility’, or the minimum requirement for the attribution of blame.<sup>7</sup> Therefore, identifying which model best reflects people’s autonomy is equally important to selecting the one that works best in practice.

## **2. What is the Target of Voluntariness?**

### **a. Bodily Movements**

From a legal perspective, the voluntariness requirement is frequently associated with the existence of a voluntary bodily movement or, in limited cases, the voluntary omission of bodily movement.<sup>8</sup> In particular, criminal responsibility can only be attached in those cases where the defendant

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<sup>6</sup> R A Duff, *Criminal Attempts* (OUP 1996) 241. This limitation will be further addressed within the chapter, particularly when discussing the target of the requirement.

<sup>7</sup> A P Simester, ‘On the So-called Requirement for Voluntary Action’ (1998) 1 BuffCrimLR 403, 406.

<sup>8</sup> For example, the US Model Penal Code (MPC) s.1.12(2), where an act or action is defined as ‘a bodily movement whether voluntary or involuntary’. Whether the requirement requires a voluntary act, as opposed to a voluntary movement will be discussed shortly.

voluntarily moved or omitted to move their body in the requisite prohibited manner. This argument relates to metaphysical accounts of action, where the focus is placed on bodily movements as representations of action. According to Moore, the proponent of the so-called ‘orthodox’ or ‘standard’ theory of action, the criminal law requires an act, understood as ‘a simple bodily movement [...] before criminal responsibility attaches, and that such a movement is all the action a person ever performs’.<sup>9</sup> However, this approach of equating bodily movements with acts may be inappropriate in that the voluntariness requirement is not necessarily concerned with the voluntariness of an act, especially that of an *actus reus*, but rather with the simple physical movement performed by an agent.

Within the philosophy of action, it is commonly argued that bodily movements can be reduced to the ‘basic action’ that lies at the foundation of all ‘complex actions’. Specifically, when an agent performs a basic action, they do not perform any other action first in order to cause the basic one to happen, i.e. the basic action is not the effect of a previous one.<sup>10</sup> These types of actions are thought of as irreducible bodily movements, or ‘absolutely basic’ actions,<sup>11</sup> such as movements of the arms and legs, eye-blinking etc.<sup>12</sup> In contrast, complex actions do not just involve bodily movements, but also circumstances and results such as opening and closing doors, driving, or even stabbing someone to death in the midst of an altercation. Complex actions are often rationalised as causal – doing something else first, which causes the complex action to occur.<sup>13</sup> In a sense, as Duff argues, they can be basic as well, but by reference to further complex actions, in the way throwing stones is basic relative to breaking windows.<sup>14</sup> However, what is said to characterise any complex action is that it is initiated by a basic one, or represents ‘the effect of a chain of causes the originating member of which is a basic action’ of the agent.<sup>15</sup> Taking the

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<sup>9</sup> Michael S Moore, *Act and Crime: The Philosophy of Action and Its Implications for Criminal Law* (Clarendon Press 1993) 45.

<sup>10</sup> Arthur C Danto, ‘Basic Action’ (1965) 2 *AmPhilQ* 141, 142. See also Julia Annas, ‘How Basic Are Basic Actions?’ (1977/78) 78 *Proceedings of the Aristotelian Society* 195.

<sup>11</sup> Duff (n 6) 248.

<sup>12</sup> Annette Baier, ‘The Search for Basic Action’ 8 *AmPhilQ* 161, 161.

<sup>13</sup> Joel Feinberg, ‘Action and Responsibility’, cited in Donald Davidson, *Essays on Actions and Events* (2<sup>nd</sup> edn, OUP 2001) 56. See also Danto (n 10) 142.

<sup>14</sup> Duff (n 6) 248.

<sup>15</sup> Danto (n 10) 142.

stabbing example, the basic action of moving one's arm would lead to the complex actions of piercing the skin, artery, and subsequently causing a haemorrhage resulting in the death of a person.

At the same time, while some theorists like Danto or Feinberg have distinguished the basic from the complex action, others would see the relationship as one of the former being subsumed into the latter. For instance, Davidson argues that basic actions are all the actions that people do, with their circumstances and results amounting to mere descriptions.<sup>16</sup> In an oft-cited argument, the author explains that 'we never do more than move our bodies: the rest is up to nature.'<sup>17</sup> Davidson uses the metaphor of an accordion, which remains intact through stretching and squeezing, and where any changes suffered are understood as ways of describing the same object.<sup>18</sup> Thus, if we were to envisage a scenario in which a person is shot and killed, the agent's basic actions would relate purely to the movement of the finger, with the remainder of the circumstances and results of that complex action originating from that basic act of pressing the trigger. Applied to the criminal legal context, an understanding of the voluntariness requirement as focusing on basic actions would solely require a voluntary bodily movement. Once the basic action is found to have been voluntary, then the criminal law can impose more complex descriptions that amount to elements of the criminal offence, e.g. whether death ensued, whether the agent intended the victim's death etc. According to Child, focusing on bodily movements as the target of the voluntariness requirement would also fulfil the normative needs of the requirement, acting as 'the basic ingredient of responsible agency'.<sup>19</sup>

At the same time, the differentiation between basic and complex action lends itself to several conceptual difficulties. On the one hand, the distinction is appealing from a causal viewpoint, helping to identify a voluntary bodily movement as the starting point in a causal chain that

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<sup>16</sup> Davidson (n 13) 59.

<sup>17</sup> *ibid.*

<sup>18</sup> *ibid* 58. The 'accordion effect' is a refined version of Feinberg's idea that an agent's action could be 'squeezed down to a minimum or stretched out'. However, where Davidson disagrees is in the focus on causation, which implies that the resulting complex action must be distinct from the initiating basic one.

<sup>19</sup> Child (n 3) 7.

involves complex circumstances and results. On the other hand, it is problematic to rationalise such movement as causally basic, in the context of there being muscle contractions and neurological processes or events that help produce the motion.<sup>20</sup> According to the standard conceptualisation of basic actions, the agent need not do anything distinct from that action in order to perform it.<sup>21</sup> However, if we wanted to rely on bodily movements as basic actions, we would have to show that our pre-movement processes are not actions themselves.<sup>22</sup> In turn, those who believe that the flexing and relaxing of muscles are actions would have to show that the sending of nerve signals to the muscles are not actions, and so on. Under this view, we would be faced with the potential for infinite regress or at least be led to conceptualise action by reference to neurological events that do not seem to match our intuitive notion of action, and are therefore problematic to categorise as basic action.<sup>23</sup> As Duff argued, it would seem ‘perverse’ to refer to neuron firings as actions.<sup>24</sup> Moreover, such a rationalisation would trigger wider debates related to agency and, particularly in the context of the criminal law, attribution.

Alternatively, the focus could remain on bodily movement, but in conjunction with an additional mental criterion, one that is intuitively closer to our understanding of action. One such criterion could be, as Child has noted, intention.<sup>25</sup> For instance, one could view basic actions as ‘the immediate or direct object of the agent’s intention’.<sup>26</sup> But similar to the previous criticism, in order to focus on bodily movements as intentionally basic, one would have to show that pre-movement processes are not intentional, or at least not intended in the same manner. In addition, such a conceptualisation seems to be at odds with more complex routines where, once we have acquired the skill required to perform them, we are not aware of what we are doing at the level of

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<sup>20</sup> See Alvin I Goldman, ‘The Volitional Theory Revisited’ in Myles Brand and Douglas Walton, *Action Theory: Proceedings of the Winnipeg Conference on Human Action, Held at Winnipeg, Manitoba, Canada, 9-11 May 1975* (D. Reidel 1975) 69; Baier (n 12) 166; and Child (n 3) 8.

<sup>21</sup> Arthur C Danto ‘II. Causation and Basic Actions: A Reply *en passant* to Professor Margolis’ (1970) 13 108, 109

<sup>22</sup> Berent Enç, *How We Act* (OUP 2003) 11; and Ron Shapira, ‘Structural Flaws of the “Willed Bodily Movement” Theory of Action (1998) 1 BuffCrimLR 349, 361.

<sup>23</sup> Child (n 3) 9; and Enç (n 22) 11.

<sup>24</sup> R A Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law* (Hart Publishing 2009) 60.

<sup>25</sup> Child (n 3) 9.

<sup>26</sup> *ibid.* See also Duff (n 6) 257.

physical movement.<sup>27</sup> For instance, Baier refers to tying one's laces, where one could do it, but would not be able to show how that was done other than having to do it again.<sup>28</sup> The bodily movement in such an example is not consciously and directly intended itself, but only in reference to the complex action, to the point that, as Duff has argued, the tying of the laces is intentionally basic to the movements required to do so, rather than the other way around.<sup>29</sup> Referring to such cases, Moore has responded by arguing that at some point in our lives, we did not possess the requisite skills to perform the complex behaviour and so had to learn them, with the simplest objects of attention being to learn how to move one's finger.<sup>30</sup> However, whilst this is true of the earliest stages in our lives, when the movement of the finger was intentionally basic, this is not the case later in life.<sup>31</sup> Moreover, it is not entirely clear that the direct objects of intention are bodily movements. As Duff has emphasised, giving the example of learning to speak, at no stage in the process does a child learn what movements must intentionally be made in order to produce sounds.<sup>32</sup> In this context, appealing to intention as an additional criterion of basicness does not help alleviate the metaphysical realists' problems associated to categorising basic action as 'bodily movement'.

These conceptual difficulties suggest that an account of action as bodily movement may be philosophically untenable but at the same time, it is important to highlight that, from a legal viewpoint, the aforementioned objections need not defeat the identification of bodily movement as the target of the voluntariness requirement. As Duff argued, the legal question of 'what is a voluntary act?' is more minimal than the philosophical one of 'what is action?'<sup>33</sup> However, according to Child, inadvertently or not, the trend within existing scholarship has become one of

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<sup>27</sup> See Moore (n 9) 129.

<sup>28</sup> Baier (n 12) 166. Such examples have led theorists such as Ripley to argue that basic actions can become larger than simple bodily movements, in accordance with the skills we acquire throughout our life. See Charles Ripley, 'A Theory of Volition' (1974) 11 *AmPhilQ* 141, 145; and Kevin W Saunders, 'Voluntary Acts and the Criminal Law: Justifying Culpability Based on the Existence of Volition' (1988) 49 *UPittLRev* 443, 457.

<sup>29</sup> Duff (n 6) 258.

<sup>30</sup> Moore (n 9) 129.

<sup>31</sup> Duff (n 6) 258-259.

<sup>32</sup> *ibid.*

<sup>33</sup> *ibid* 241.

combining the voluntariness requirement in law with comprehensive theories of action in general.<sup>34</sup> This has forced legal scholars to have to side with a specific philosophical understanding of action, rather than analyse the standalone issue of voluntariness in law.<sup>35</sup> In this context, rather than pursuing one philosophical conceptualisation, it is argued that the most practical approach would be to attempt to demarcate the legal requirement of voluntariness within philosophical debates. For instance, whilst a criterion of basicness is required in order to identify bodily movement as the target of the voluntariness requirement in law, this should not be understood in a wider philosophical context due to the fact that the inclusion of such criterion within each philosophical explanation is open to contradiction and alternative explanation.

From a legal viewpoint, identifying bodily movement as causally basic does not lead to the same criticism that could be brought against metaphysical realists. This is due to the fact that the criminal law does not focus on pre-movement processes, irrespective of their status as action.<sup>36</sup> However, one problematic aspect that remains is that of omissions liability.<sup>37</sup> Within criminal law, omissions liability is generally imposed in those cases in which defendants refrain from acting when they have a duty to do so, for instance in the case of parents towards their children,<sup>38</sup> doctors and their patients,<sup>39</sup> or Police officers and the public.<sup>40</sup> The extent to which liability can be imposed for failures to move rests primarily on the values which the criminal law seeks to uphold, as well as the way in which such values are understood. Specifically, taking the ‘conventional view’, one could rationalise omissions liability as the imposition of positive duties

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<sup>34</sup> Child (n 3) 4-5.

<sup>35</sup> *ibid* 5. For example, Moore has promoted a definition of action as ‘willed bodily movement’ both within the voluntariness requirement and action theory. See Moore (n 9) 45.

<sup>36</sup> The same can be said in relation to so-called mental acts such as calculating or deliberating, which could be considered an additional challenge to the conceptualisation of voluntariness on the basis on bodily movements. However, except for archaic offences, such as envisaging the death of the monarch, thought offences are not a part of the criminal law.

<sup>37</sup> An additional aspect is that of possession offences. However, it is argued that possession offences nevertheless require bodily movements, albeit at an earlier stage, either by acquiring, for example illicit substances, or omitting to dispose of them. The same approach can be extended to status offences, where the agent either does something to assume a particular status or fails to rid themselves of it. See Francisco Munoz-Conde and Luis Ernesto Chiesa, ‘The Act Requirement as a Basic Concept of Criminal Law’ (2007) 28 *Cardozo LRev* 2461, 2476; and Child (n 3) 15-16.

<sup>38</sup> *Gibbins v Procter* (1918) Cr App R 134.

<sup>39</sup> *Re A (children)* [2001] Fam 147.

<sup>40</sup> *Dytham* [1979] 3 All ER 641.

to act only in limited circumstances, due to the respect for autonomy and liberal values that the law reflects.<sup>41</sup> Here, autonomy is understood not only as the freedom to act as one wishes, but also as the freedom not to, for to do otherwise would be categorised as ‘paternalistic’ and infringing people’s right to self-determination.<sup>42</sup> Therefore, people are allowed to put themselves first, unless they have assumed a duty, either contractually or by virtue of their relationship.

In the present context, omission liability can potentially represent a challenge to the argument that the target of voluntariness is bodily movements, considering the apparent lack thereof in these cases. For example, Hornsby criticises the ‘standard story’ of action as willed bodily movement on the basis that it leaves out those categories like ‘omitting, refraining, letting happen’ and puts a strain on proponents to justify them.<sup>43</sup> Indeed, according to theorists such as Moore, omissions cannot be categorised as bodily movements, considering that they lack the requisite motion and physical exertion.<sup>44</sup> The strain referred to by Hornsby can be seen here, where Moore is forced to make a distinction between metaphysical and moral considerations, deeming the existence of omissions liability an exception to the rule.<sup>45</sup> Acknowledging the legal justification for imposing this liability, Moore states that:

[...] the only exception to this is for those omissions that violate our duties sufficiently that the injustice of not punishing such wrongs outweighs the diminution of liberty such punishment entails.<sup>46</sup>

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<sup>41</sup> Andrew Ashworth, ‘The Scope of Criminal Liability for Omissions’ (1989) 105 LQR 424, 428. The author is a proponent of the ‘social responsibility view’, which stems out of a ‘communitarian social philosophy’ that values individual life, ‘both intrinsically and for its contribution (or potential contribution) to the community’. As such, preserving the life of others is an interest that outweighs that of preserving the freedom not to act. See also Introduction for an exploration of the focus on liberalism within the criminal law.

<sup>42</sup> *ibid* 430.

<sup>43</sup> Jennifer Hornsby, ‘Agency and Actions’, in John Hyman and Helen Steward (eds), *Agency and Action* (CUP 2004) 6.

<sup>44</sup> Moore (n 9) 82. See also Michael S Moore, ‘Renewed Questions about the Causal Theory of Action’ in Jesus H Aguilar and Andrei A Buckareff (eds), *Causing Human Actions: New Perspectives on the Causal Theory of Action* (MIT Press 2010) 27.

<sup>45</sup> Moore (n 9) 89. See also Alvin I Goldman, *Theory of Human Action* (Princeton University Press 1970) 48: ‘I find this a difficult problem indeed, and I do not have any solution to propose.’

<sup>46</sup> Moore (n 9) 59.

This argument is also reflected within legal discourse, where most commentators draw a distinction between acts and omissions, focusing on the unique nature of the relationship between parties or the limited applicability of the doctrine.<sup>47</sup>

At the same time, excluding omissions from the category of ‘actions’ can obscure the fact that both share similar characteristics, particularly when it comes to the normative and descriptive goals of the voluntariness requirement. For instance, as Smith argued, when someone refrains from moving their body, they exercise agency in the same way as those who do move their bodies do.<sup>48</sup> The author gives the example of a person who decides they should not eat chocolate and thus refrains from moving their arm towards the chocolate box. Here, the agent is said to still exercise control over their body, ensuring that the arm remains still, or positioned somewhere different from the box.<sup>49</sup> Even when voluntariness is conceptualised in a different way, similar comparisons can be made. For instance, when voluntariness is described by reference to intention, in both cases, the agent can intentionally move their arm to take the chocolate or intentionally abstain from doing so. These alternative conceptualisations suggest that there is no apparent distinction between voluntary bodily movements and voluntary omissions, both instances being potentially reflective of the person’s agency and therefore attributable to them.<sup>50</sup>

Those theorists who challenge the focus on bodily movements as the source of action could see the similarities between voluntary bodily movements and omissions as supporting the need to conceptualise action differently. For instance, Fletcher argues that bodily movements have ‘no moral relevance’, considering that one can exercise agency in the absence of movement, using omissions as the biggest counterargument to this conceptualisation.<sup>51</sup> However, there is a case to be made that omissions can nevertheless be compatible with a conceptualisation of bodily

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<sup>47</sup> In fact, most criminal law textbooks allocate sections to the distinction between acts and omission. See for example Jonathan Herring, *Criminal Law* (9<sup>th</sup> edn, Palgrave 2015) 45; and Stuart Macdonald, *Text, Cases and Materials on Criminal Law* (Pearson 2015) 58.

<sup>48</sup> Michael Smith, ‘The Standard Story of Action: An Exchange (1)’ in Aguilar and Buckareff (n 44) 48.

<sup>49</sup> *ibid* 49. Smith here refers to control, but Section 4 of the chapter explores the conceptualisation of voluntariness through additional concepts, including volitions and intention.

<sup>50</sup> These various conceptualisations will be analysed in-depth shortly.

<sup>51</sup> George P Fletcher, ‘On the Moral Irrelevance of Bodily Movements (1994) 142 UPaLRev 1443, 1444.

movements as the target of the voluntariness requirement. One argument in favour is that most omissions can be defined by reference to other bodily movements. According to Vermazen, ‘negative acts’, also known as ‘not- $\phi$ -ing’ (not-eating, not-coughing etc.), do not necessarily have to be equated with ‘not-moving’, for they can generally identify with some other movement of the agent’s.<sup>52</sup> For instance, using the chocolate scenario, the not-eating can be identified with an act that they are doing instead, such as moving or facing away from the chocolates, drinking water, eating something else, and so on. In some cases, positive acts can be linked to a ‘pro-attitude’ toward not doing something, the agent voluntarily keeping themselves occupied by doing something else.<sup>53</sup> At the same time, one could argue that there are cases in which there is absolutely no bodily movement performed by the agent, such as lying still, but even here, as Vermazen argues, the fact that the agent does that by ‘activating the appropriate muscles’ can suggest some type of positive manifestation.<sup>54</sup> This latter argument can be considered as contentious, especially in the previous context of the infinite regression argument and the dangers of looking beyond bodily movements to muscle contractions, neural processes, and so on. However, notwithstanding the conceptual difficulty such argument potentially brings to metaphysical accounts of action, this does not necessarily bar the inclusion of omissions to move one’s body within the voluntariness requirement, when that is understood as targeting bodily movements. Moreover, from a legal viewpoint, whether the omissions are taken as an exception to the requirement for bodily movement or not, this does not impact the application of the voluntariness requirement. The focus of the requirement on bodily movements, i.e. basic actions, does not extend the analysis to wider circumstances and results. Therefore, issues such as whether an absence of bodily movement can be causally tied to a particular result or state of affairs are considerations for *actus reus* and *mens rea* assessments particular to each offence, rather than the requirement of voluntariness applicable to all offences. In other words, focusing on the voluntary

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<sup>52</sup> Bruce Vermazen, ‘Negative Acts’ in Bruce Vermazen and Merrill B Hintikka (eds), *Essays on Davidson: Actions and Events* (OUP 1985) 95.

<sup>53</sup> *ibid.*

<sup>54</sup> *ibid.*

lack of bodily movement as a requirement of voluntariness in omissions would suffice, regardless of philosophical and criminal legal intricacies.

### **b. Act Descriptions**

Rather than acknowledging the philosophical difficulties in focusing on bodily movements, an alternative could be to focus on act *descriptions* instead. According to Duff, an analysis of action solely based on producing bare bodily movements does not have explicatory power without an accurate understanding of the ‘context-dependent meanings’ of action, when such meanings exist.<sup>55</sup> For Duff, it is actions understood as ‘social phenomena’ which are the object of the law and what the criminal law is actually interested in.<sup>56</sup> Because of this, the law should be concerned with our capacity to engage in reasoning and to achieve results that make a difference in the world.<sup>57</sup> A similar understanding is promoted by Fletcher, a proponent of the so-called ‘communicative’ theory of action, whereby acts or omissions should be taken as a type of expression or communication that is understandable to everyone.<sup>58</sup> In particular, Fletcher is critical of Moore’s emphasis on bodily movement, which he considers to be ‘in abstraction to the way we act in relationships with other people’.<sup>59</sup> What is important is not just the ‘objective externalisation’, but also the ‘subjective relationship between the actor and the act’.<sup>60</sup> That is, an agent’s resistance to the norm is reflected through the intensity and degree of their intent.

Such theorists focus on the way we understand and refer to actions in everyday situations, which is usually inclusive of circumstances and results. For example, rather than talking about the movement of our arms and legs, we are interested in whether someone is opening the door or driving. This approach is persuasive, but it has limitations. According to Saunders, when there is

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<sup>55</sup> Duff (n 6) 296. Here, Duff gives the example of greeting someone by waving an arm.

<sup>56</sup> *ibid.* See also R A Duff, ‘Action, the Act Requirement and Criminal Culpability’ (2004) 55 *Royal Institute of Philosophy Supplements* 69.

<sup>57</sup> Duff (n 56) 84.

<sup>58</sup> George P Fletcher, *The Grammar of Criminal Law: American, Comparative, International. Volume 1, Foundations* (OUP 2007). See also Munoz-Conde and Chiesa (n 36) 2465.

<sup>59</sup> Fletcher (n 51) 1453.

<sup>60</sup> Kai Ambos, ‘Toward a Universal System of Crime: Comments on George Fletcher’s Grammar of Criminal Law’ (2007) 28 *Cardozo LRev* 2647, 2654.

nothing peculiar about one's bodily movement, describing acts by reference to their descriptions is merely 'a form of shorthand'.<sup>61</sup> Characterising the movement of one's arm as a stabbing is meant to appeal to the listener's life experience and convey to them what happened in a concise manner, such that the event is understood in, to use Duff's terminology, its 'context-dependent meaning'. However, when the way in which the movement was performed is put into question, for example when the movement is alleged to have been involuntary, then the shorthand explanation is no longer acceptable. While the circumstances and consequences of an action are legally relevant, it is argued that they relate to wider *actus reus* considerations that can only be made once it is established that there is an action attributable to the agent in the first place. Furthermore, in order to attribute an action to agent, the 'vantage point of the actor' and the first-person viewpoint are essential.<sup>62</sup>

Having addressed both bodily movements and act descriptions as potential targets of the voluntariness requirement, it is argued that the preferred option is the former one. Such an approach is also consistent with some of the legal assumptions identified in the previous chapter, for instance, in relation to courts' reference to an agent's complete destruction of control over bodily movements, awareness of movements etc.<sup>63</sup> Moreover, this approach is also present within criminal law statutes such as the US Model Penal Code (MPC), which defines an "act" or "action" as 'a bodily movement, whether voluntary or involuntary'.<sup>64</sup> Equally, from a philosophical perspective, since action is generally traced back to bodily movement,<sup>65</sup> focusing on movements as the object of the voluntariness requirement would not be theoretically contentious. What should be noted, however, is that, in contrast with these definitions, the present thesis avoids discussing the issue of voluntariness in relation to concepts such as 'actions' or 'acts', as it creates unneeded confusion and invites assessments as to the meaning, circumstances, and consequences of certain bodily movements. As argued so far, the voluntariness requirement

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<sup>61</sup> Saunders (n 28) 451.

<sup>62</sup> Douglas Husak, 'Rethinking the Act Requirement' (2007) 28 Cardozo LRev 2437, 2452.

<sup>63</sup> See Chapter 2, sections 5-9.

<sup>64</sup> US MPC, s. 1.13 (2): "act" or "action" means a bodily movement whether voluntary or involuntary'.

<sup>65</sup> According to Davidson, all actions are basic bodily movements that can simply be described in terms of their circumstances, results etc. See Davidson (n 13) 56 and section 2.a. above.

is not as concerned with moral blameworthiness as it is with attribution, agency and autonomy.<sup>66</sup> That is, it is only once an agent is found to have *moved* autonomously, in full exercise of their agency, that the criminal law can subsequently carry out further assessments. These relate to the consequences or circumstances in which those movements were carried out, what they amounted to, whether any criminal intention, recklessness etc. accompanied them, and so on. At the same time, ascertaining that the target of the requirement should be that of bodily movements does not bring us closer to understanding what it means to move *voluntarily*. As such, the remainder of the chapter will explore various concepts that have been promoted as ways to rationalise the requirement. Before exploring which conceptualisation of voluntariness would be the most appropriate to adopt, it is important to briefly explain the position of the voluntariness requirement within the hierarchy of offence elements, in order to clearly delineate the parameters of the remaining analysis.

### 3. Voluntariness and the Structure of Offence Elements

Normatively, the voluntariness requirement is primarily concerned with distinguishing a wrong committed by an autonomous agent from an accident or happening. As ‘the foundation of moral responsibility’,<sup>67</sup> the requirement is central to assessments of criminal responsibility. However, the lack of clarity and consistency as to the application of the requirement, particularly in terms of the definition of voluntariness, contributes to the diminishing of the central role of this requirement in law. This approach can be explained by the courts’ and lawmakers’ focus on assessing involuntariness as opposed to voluntariness, as well as only addressing the issue in rare and exceptional cases, through the ‘defence’ of automatism.<sup>68</sup> However, whether someone was

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<sup>66</sup> This is also one another reason why automatism must not be viewed as a defence, as it invites assessments into one’s culpability, as opposed to simply focusing on whether there is a bodily movement (or lack thereof) which can be attributed to the agent.

<sup>67</sup> Simester (n 7) 406.

<sup>68</sup> See Chapter 1.1.b.

voluntary when moving is the first question that the criminal law should ask before making any assessments regarding the *actus reus* or *mens rea* of the offence in question.<sup>69</sup>

Existing literature reveals that there is a lack of consensus as to the position of the voluntariness requirement within the structure of offence elements. For instance, the requirement has often been described as the ‘voluntary *act* requirement’ but there is confusion as to whether it is meant to be synonymous with the *actus reus* of the offence or separate from it. Husak refers to *actus reus* as the ‘act requirement’ and emphasises that an act without voluntariness is no act at all.<sup>70</sup> Such a view, that one’s voluntariness is implied from the act requirement itself, is also supported by academics such as Wilson and Duff.<sup>71</sup> However, there are others who argue that the act requirement is separate from the voluntariness requirement. For instance, according to Robinson, involuntary acts or omissions are treated as part of the umbrella of *actus reus*, but the voluntariness requirement itself is distinct from the ‘act-or-omission requirement’ in that it is an ‘independent doctrine’.<sup>72</sup> Similarly, Farrell and Marceau include the voluntariness requirement within the *actus reus* of an offence but distinct from an act requirement, emphasising that the distinction is both descriptive and normatively accurate.<sup>73</sup> The reason is that not all offences require a voluntary act because not all of them require acts in the sense of overt movement.<sup>74</sup> In other words, the absence of bodily movements, i.e. omissions, can be voluntary too.

At the same time, the voluntariness requirement has also been considered by some as an element of the *mens rea*.<sup>75</sup> Such a classification could be attributed to the philosophical roots of the doctrine. Specifically, the legal requirement for voluntariness can be traced back to the philosophy

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<sup>69</sup> The present thesis adopts the view that the target of the requirement is bodily movement, as opposed to action, behaviour, conduct etc. For a discussion as to why bodily movements are preferred, see above, Section 2.

<sup>70</sup> Husak (n 62) 2455.

<sup>71</sup> See William Wilson, *Central Issues in Criminal Theory* (Hart 2002) 115; and Duff (n 56) 69.

<sup>72</sup> Paul H Robinson, ‘Should the Criminal Law Abandon the Actus Reus-Mens Rea Distinction?’ in Stephen Shute, John Gardner and Jeremy Horder (eds), *Action and Value in the Criminal Law* (OUP 1993) 196. Here, the author also includes omissions within the requirement, but this has not been universally agreed. For example, Moore does not consider omissions as compatible with criminal responsibility. See Moore (n 9) 59; above, Section 2.a.

<sup>73</sup> Ian P Farrell and Justin F Marceau, ‘Taking Voluntariness Seriously’ (2013) 54 BCLRev 1545, 1574-1575.

<sup>74</sup> *ibid* 1575. See also above, Section 2.a.

<sup>75</sup> See J J Child and Alan Reed, ‘Automatism Is Never a Defence’ (2014) 65 NILQ 167, 172.

of conduct of the eighteenth century, through Hume and Austin, and has been translated into modern legal thinking by reference to the concept of ‘willed bodily movements’.<sup>76</sup> The transition into modern law was made by introducing an additional ‘psychological’ element in order to ascribe criminal responsibility.<sup>77</sup> Following from the traditional or ‘volitionist’ philosophical view of action as ‘willed’,<sup>78</sup> it is commonly argued that the law adopted the notion it is not enough for the agent to perform a bodily movement and that some form of mental manifestation is also required to complete the offence.<sup>79</sup> Perhaps this rationalisation of the voluntariness requirement as connected to concepts such as ‘willing’ or ‘volition’ has led to the categorisation of the requirement as an element of the *mens rea* of the offence, rather than the *actus reus*. For example, being involuntary is considered a denial of *mens rea* in Scotland, with an apparent emphasis on the lack of awareness that the behaviour is wrong.<sup>80</sup>

Nevertheless, this thesis argues that the voluntariness requirement is distinct from the mental element required as part of an offence. Assessments such as those regarding one’s intention, recklessness etc. in relation to their conduct go beyond whatever mental manifestation one may have as to their physical movement. Fundamentally, such evaluations have more to do with a person’s awareness of the wrongness of their behaviour rather than mere attribution of movement. Certainly, voluntariness could be described by reference to concepts such as awareness or intention, which do involve a mental manifestation.<sup>81</sup> However, the focus of these concepts should not be on the mental state as it relates to the offence in question (e.g. an intention to kill or cause grievous bodily harm in the case of murder), but on the physical movement. Depending on how

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<sup>76</sup> HLA Hart, ‘Acts of Will and Responsibility’ in *Punishment and Responsibility: Essays in the Philosophy of Law* (2<sup>nd</sup> edn, OUP 2008) 90. The reference to willed bodily movements is present in criminal law textbooks. See, for example, David Ormerod and Karl Laird, *Smith and Hogan’s Criminal Law* (14<sup>th</sup> edn, OUP 2015) 60. This aspect is discussed next, in Section 4.a.

<sup>77</sup> Hart (n 76) 90.

<sup>78</sup> Duff (n 56) 76.

<sup>79</sup> Gideon Yaffe, ‘The Voluntary Act Requirement’ in Andrei Marmor (ed), *The Routledge Companion to Philosophy of Law* (Routledge 2012) 175.

<sup>80</sup> *Ross v HM Advocate* (1991) JC 201, 218 (Lord Justice-General [Hope]): the defence of automatism is based ‘on an inability to form mens rea due to some external factor which was outwith the accused’s control and which he was not bound to foresee.’ See also Child and Reed (n 75) 172.

<sup>81</sup> The multiple conceptualisations of voluntariness will be discussed in Section 4.

voluntariness may be defined, a mental state may be that of intending to move, being aware of moving etc. This is a separate, albeit a linked consideration, from the *mens rea* assessment.<sup>82</sup>

Equally, this study adopts the view that the voluntariness requirement is distinct from the act requirement in law. As argued in the previous section, the target of the voluntariness requirement should be categorised as relevant to bodily movement only; the circumstances or results of which meet the definition of a particular offence. In other words, one need not commit the *actus reus* voluntarily, but simply *move* voluntarily. Whether the movement itself was produced in circumstances or caused results which meet the *actus reus* of an offence should be a matter for subsequent consideration for the law. Indeed, as a ‘matter of analytical convenience’,<sup>83</sup> such an assessment might be regarded as a pre-step within the broader umbrella of *actus reus*, following Robinson, Farrell and Marceau. However, this should precede considerations regarding the description of a certain movement (e.g. whether an arm movement amounts to a stabbing), its circumstances and/or results. To an extent, integrating the requirement for voluntary movement within the *actus reus*, as a pre-condition of liability, would also match the traditional distinction between mind and body which the criminal law continues to be based upon.<sup>84</sup> That is, in its simplest form, the criminal law still relies on a separation between the physical and mental elements of criminal responsibility, as illustrated through the *actus reus* – *mens rea* distinction.<sup>85</sup> As such, for present purposes, in the interest of convenience and practicality, it can be argued that the *actus reus* relies on the existence of a voluntary movement, followed by the relevant type of circumstance and/or result.

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<sup>82</sup> For instance, the intention to move one’s finger on a trigger could be evidence that an intention to kill had been formed. See *Ryan v The Queen* [1967] HCA 2.

<sup>83</sup> According to Keating and others, this should be behind dividing criminal offences into their constituent elements of *actus reus* and *mens rea*. See HM Keating and others, *Clarkson and Keating: Criminal Law* (8<sup>th</sup> ed, Sweet and Maxwell 2014) 78.

<sup>84</sup> The distinction between *actus reus* and *mens rea* is largely associated with the Cartesian separation between mind and body, or dualism, which can be traced back to the philosophy of Descartes. However, in recent decades, such separation has been subjected to extensive criticism. For further information, see Dov Fox and Alex Stein, ‘Dualism and Doctrine’ in Dennis Patterson and Michael S Pardo (eds), *Philosophical Foundations of Law and Neuroscience* (OUP 2016).

<sup>85</sup> Such a separation is very general, for there are mental states which inevitably play a part in the *actus reus* of certain offences, e.g. fear in robbery or consent in rape. For further detail see Paul H Robinson, ‘Should the Criminal Law Abandon the Actus Reus-Mens Rea Distinction?’ in Stephen Shute, John Gardner, and Jeremy Horder (eds), *Action and Value in Criminal Law* (Clarendon Press 1993) 188-189.

In this context, given the focus of the voluntariness requirement on the (lack of) bodily movement, it is preferable that the requirement is viewed as a subset of the *actus reus* requirement. That is, as a pre-condition to assessments regarding the circumstances and results of a certain movements, in accordance with the requirement of each criminal offence. Certainly, as stated above, a mental manifestation may be central to a state of voluntariness, but that manifestation must relate to a bodily movement, which is ultimately the object of the requirement. This is why voluntariness is somewhat closer to *actus reus* rather than *mens rea* considerations.<sup>86</sup> Under this conceptualisation, the voluntary requirement becomes the gateway to criminal responsibility assessments in that it is only once this element is completed that the criminal law can look to wider analyses relating to the circumstances and effects of a movement, as well as the mental state attached to those circumstances or results. Most importantly, positioning the requirement in this way, as the foundational element of the offence, further emphasises the need for developing a legal standard of voluntariness. This standard should apply to any assessment, as an essential ingredient of criminal responsibility.

#### **4. What is Voluntariness?**

##### **a. Volition**

According to the ‘orthodox’ view, it is commonly argued that voluntary bodily movements are caused by volitions.<sup>87</sup> This classification of volitions as the source of movement is a claim

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<sup>86</sup> Alternatively, it could be argued that the requirement is part of both *actus reus* and *mens rea*. See for example Arlie Loughnan, *Manifest Madness: Mental Incapacity in Criminal Law* (OUP 2012) 127: ‘the most precise way to conceptualize the relationship between the automatism doctrine and the elements of an offence is that it relates to both *actus reus* and *mens rea*’. Equally, it could be argued that the requirement is part of neither *actus reus*, nor *mens rea*. See Lisa Claydon, ‘Involuntary Action and Criminal Responsibility’ (PhD thesis, De Montfort University 2001) 13. However, regardless of which view is taken, it is important to note that the voluntariness requirement is distinct from the *actus reus* and *mens rea* relevant to each offence.

<sup>87</sup> Moore (n 9) 45.

originated from the philosophy of conduct of the eighteenth century, through Austin<sup>88</sup> and other English philosophers,<sup>89</sup> to modern writers.<sup>90</sup> According to John Austin:

The desires for [those] bodily movements which immediately follow our desires for them, are sometimes styled ‘volitions:’ – more frequently, ‘determination of the will’ or of ‘the power or faculty of willing.’<sup>91</sup>

For Austin, volitions are essentially ‘acts of the will’, i.e. the only desires that are ‘followed by their objects *immediately*, or without the intervention of means’.<sup>92</sup> Similarly, Thomas Reid refers to volitions as ‘the act of willing and determining’.<sup>93</sup> This emphasis on will is also present within contemporary legal scholarship and case law, with ‘voluntary acts’ being often rationalised as ‘willed’.<sup>94</sup> Moreover, the reference to volitions or willing is present in statutory documents from the United States.<sup>95</sup> This conceptualisation of voluntariness relies on volitions to explain what causes bodily movements or, as Duff described it, to provide a defining ‘mark of action’.<sup>96</sup> The ‘mental attitude to conduct’ or element that is the volition generates bodily movements and is taken to be the separating line between voluntary and involuntary movements.<sup>97</sup> However, beyond

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<sup>88</sup> See John Austin, *Lectures on Jurisprudence or the Philosophy of Positive Law, Volume 1* (Verlag Detlev Auvernmann KG 1972), Lectures XVIII-XIX.

<sup>89</sup> See John Brice, ‘Hume, Freedom to Act, and Personal Evaluation’ (1988) 5 *History of Philosophy Quarterly* 141.

<sup>90</sup> Hart (n 76) 90. Earlier versions of the ‘orthodox theory’ had been subjected to a certain degree of ridicule, particularly since the rationalisation of action was one of a ‘spiritual mind pulling (in some causally mysterious way) the levers which run the body’. See Vincent Chiao, ‘Action and Agency in the Criminal Law’ (2009) *Legal Theory* 1, fn 11. Moore is believed to have resurrected and refined the view, particularly in a legal context.

<sup>91</sup> Austin (n 88) 418-419.

<sup>92</sup> *ibid* 414.

<sup>93</sup> Cited in Vernon J Bourke, ‘Will in Western Thought’ (Sheed and Ward 1964) 109. Burke also cites other English philosophers describing volitions as acts of will, such as David Hume, John Stuart Mill or John Locke. A similar connection is made within the legal sphere. See Law Commission, *Criminal Liability: Insanity and Automatism. A Discussion Paper* (2013) para A.76.

<sup>94</sup> See for example David C Ormerod and others, *Smith and Hogan’s Criminal Law* (14<sup>th</sup> edn, OUP 2015) 60; and *Ryan v The Queen* [1967] HCA 2. However, as argued in the previous section, the reference to acts in the context of the voluntariness requirement is to be avoided.

<sup>95</sup> See for example the Ohio Revised Code, 2901.21(F)(2): ‘Reflexes, convulsions, body movements during unconsciousness or sleep, and body movements that are not otherwise a product of the actor’s volition, are involuntary acts’.

<sup>96</sup> Duff (n 6) 265.

<sup>97</sup> Kenny cited in Hart (n 76) 99.

that, it is not entirely clear what a volition is, or what its explanatory power might be within the legal context.

From a philosophical viewpoint, the existence of volitions has not been a widely accepted one. Despite its long-lasting presence in Western thought, the concept came under attack during the first half of the twentieth century. For Ryle, volitions were thought to be a ‘myth’, confusing and elusive, ‘an inevitable extension of the myth of the ghost in the machine’.<sup>98</sup> Ryle was one of the main critics of the so-called ‘mind-body dualism’, a theory credited to Descartes, according to which the mind and the body are two separate entities, each with its own mechanisms.<sup>99</sup> Referring to Cartesian dualism as ‘the dogma of the Ghost in the Machine’, Ryle expanded his critique to include volitions in the list of artificial concepts used to explain action.<sup>100</sup> Other critics followed, to the extent that today, volitional theories are still categorised as belonging to the realm of ‘unfashionable’ research areas.<sup>101</sup>

One of Ryle’s major criticisms of volitions relates specifically to the issue of infinite regression.<sup>102</sup> In ‘The Concept of Mind’, Ryle criticises volitions on the basis that, if we considered a movement like pulling the trigger of a gun a voluntary occurrence, then it must follow that the volition that generated it itself must have been produced by another volition, and so on.<sup>103</sup> The primary reason why this criticism was put forward could be attributed to a contentious point within volitional theory, that of whether volitions represent actions that the agent performs in their mind – acts of will – or whether they simply amount to the passive experience of mental thought. If the former is assumed, then by virtue of it being a voluntary action, the volition itself must have been caused by another volition, to the point that there is ‘an infinite sequence of volitions, each being the “object” of its predecessor’.<sup>104</sup>

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<sup>98</sup> Gilbert Ryle, ‘The Concept of Mind’ (Penguin 2000) 50.

<sup>99</sup> Dov Fox and Alex Stein, ‘Dualism and Doctrine’ in Dennis Patterson and Michael S Pardo (eds), *Philosophical Foundations of Law and Neuroscience* (OUP 2016) 106.

<sup>100</sup> Ryle (n 98) 5.

<sup>101</sup> E J Lowe, *Free Agency, Causation and Action Explanation* (Palgrave 2009) 347.

<sup>102</sup> This is similar to that referred to previously in the context of bodily movements.

<sup>103</sup> Ryle (n 98) 54.

<sup>104</sup> Goldman (n 20) 69. See also A I Melden, *Free Action* (Routledge & Kegan Paul 1961) 54.

For present purposes, given that focus of the legal requirement of voluntariness is on bodily movements, rather than mental ‘actions’, the focus on the legal assessment could turn to the volition that immediately precedes the bodily movement. Moreover, considering that most conceptualisations of action focus on some overt physical movement, it would not necessarily be too contentious if the infinite sequence of volitions objection would be avoided.<sup>105</sup> This could be achieved by making a conceptual distinction between ‘ordinary’ actions and volitions. For instance, Ginet describes volition as a ‘mental action’, but understood as:

[...] an aspect, a constituent of its seeming to one that one voluntarily exerts the body. One will not find volition if one looks for it among the *antecedents* of the experience of voluntary exertion itself, if one supposes it to be a prior mental occurrence that triggers the whole package of the exertion and the experience of it.<sup>106</sup>

For Ginet, volitions are mental processes distinct from what some theorists would categorise as mental acts – calculating, deliberating, etc.<sup>107</sup> – they are the vehicle through which bodily exertions are generated and their structure is not that of a mental act causing a different mental event.<sup>108</sup> At the same time, this differentiation between types of mental exertions does lend itself to criticism and can be catalogued as ‘ad hoc’,<sup>109</sup> for it is not entirely clear why volitions should be distinguished or even privileged over other mental acts. As Enç argues, theorists saved themselves from the ‘embarrassment threatened by certain types of questions’ that would normally be posed about regular acts by cataloguing volitions as privileged acts, protecting them against any philosophical challenge.<sup>110</sup>

In contrast to Ginet, other theorists like Moore prefer to categorise volitions as passive mental states which mediate between intentions and actions, and which agents do not ‘actively bring to mind’.<sup>111</sup> One issue with this argument is that labelling volitions as passive states seems at odds

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<sup>105</sup> For further detail, see Section 2.

<sup>106</sup> Ginet (n 1) 29 (emphasis in text).

<sup>107</sup> See for example R A Duff (n 56) 81.

<sup>108</sup> Ginet (n 1) 30.

<sup>109</sup> Brand cited in Moore (n 9) 116.

<sup>110</sup> Enç (n 22) 8.

<sup>111</sup> Moore (n 9) 116.

with the significance attributed to them, both from a causal and agency viewpoint. Because of this, it might be better to accept volitions as mental acts, whilst at the same time acknowledging the infinite regress criticism. According to Zhu, such arguments should not be dismissed but instead serve as a way to stimulate empirical research, especially considering the headway made by cognitive neuroscience in the past few decades and the potential for brain imaging to provide insight into the processes behind the initiation of action.<sup>112</sup>

From a legal perspective, the infinite regression criticism does not necessary apply, much in the same way as the argument goes in the context of bodily movements. Regardless of whether neuroscience dispels the regression argument in the future, our present purpose is not to conceptualise the voluntariness of volitions but that of bodily movements, in order to accurately develop a legal standard of voluntariness. At the same time, the limited explanatory power of the notion suggests that volitions may not be the most appropriate way of defining the source of voluntariness. In fact, the use of the notion is not widely supported within legal scholarship. For instance, the Law Commission takes a broad approach when characterising them not just as ‘the general power that leads a person to act, or the will’, but also as ‘the translation of a decision or choice into action’.<sup>113</sup> However, the Commission does not find the concept of volition ‘a very helpful term’, because it is not one that is in general use, preferring to focus on control instead.<sup>114</sup> Moreover, defining voluntariness in relation to willing is considered to be under-inclusive, given that, in the Commission’s opinion, certain habitual actions such as sneezing may be ‘unwilled’ but nevertheless voluntary.<sup>115</sup>

On the one hand, arguments such as that of the Law Commission may not be persuasive enough, considering that no specific detail was provided as to why habitual actions are not willed. On the other hand, the use of volitions as a way to rationalise voluntariness does not seem to bring us

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<sup>112</sup> Jing Zhu, ‘Understanding Volition’ (2004) 17 *Philosophical Psychology* 247, 266.

<sup>113</sup> Law Commission (n 93) para A.76.

<sup>114</sup> *ibid.* Control will be analysed later in the chapter, at 3.4.c.

<sup>115</sup> *ibid.* paras A.52-53. Here, the Commission does not expand on its rationale behind categorising habitual actions as voluntary. At the same time, it appears to associate willing more with intentions and desires rather than volitions, and therefore the criticism brought against the notion may not apply to volitions necessarily.

closer to understanding the difference between voluntary and involuntary movement. One could argue that where someone is ‘willing some change’,<sup>116</sup> or where the event amounts to or expresses ‘propositional attitudes’,<sup>117</sup> then the agent is acting voluntarily. However, such characterisations of volitions are highly abstract and do not capture the essence of the requirement, regardless of whether or not it is possible to extricate them from the movement.<sup>118</sup> In fact, even the idea that volitions cause bodily movement is not as explanatory as one would expect, considering that it is scientifically demanding to fully understand how mental events or processes generate movement.<sup>119</sup>

Equally, from a normative perspective, due to the highly abstract nature of volitions, it is harder to connect them with ideals of autonomy and agency. At times, where volitions have been addressed in the context of reflecting an agent’s freedom, this has been done by reference to alternative concepts. For instance, according to Bourke, willing has often been used to describe decision-making processes reflective of the freedom and liberty of the volitional agent.<sup>120</sup>

Freedom would be understood here as:

that power or condition of an agent which enables him to act, or refuse to act, and to do so in ways which he determines, without compelling restraints from forces external to, or internal to, his own personality.<sup>121</sup>

Under this analysis of freedom, the emphasis would be on desire or choice, such that a person acts freely if they do something ‘because [they] want to’.<sup>122</sup> However, this rationalisation would turn volitions into a different type of concept than that envisaged above, for instance, one that is

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<sup>116</sup> H A Prichard, ‘Acting, Willing, Desiring’ in Jonathan Darcy and Constantine Sandis (eds), *Philosophy of Action: An Anthology* (Wiley Blackwell 2015) 73, See also Duff (n 6) 265.

<sup>117</sup> Goldman (n 20) 68.

<sup>118</sup> For example, McCann argues that the attempts made by paralysed individuals to move their bodies represent ‘sound evidence’ that volitions are part of the process. Hugh McCann, ‘Trying, Paralysis, and Volition’ (1975) 28 *The Review of Metaphysics* 423, 424.

<sup>119</sup> William Wilson, *Central Issues in Criminal Theory* (Hart Publishing 2002) 108. The third chapter will explore this issue in-depth, critically addressing the scientific evidence surrounding voluntary behaviour.

<sup>120</sup> Bourke (n 93) 79.

<sup>121</sup> *ibid* 79. Here, the author explains that the connection between volition and freedom came primarily from the Old Testament and other Christian teachers, as opposed to Greek philosophers, who were associating freedom with social and political liberties.

<sup>122</sup> Anthony Kenny, *Freewill and Responsibility* (Routledge 1978) 25.

focused on intentions or desires. Taken in that sense, this understanding of volitions, and even more widely, of voluntariness, is equally unconvincing.<sup>123</sup> As such, it is argued that the normative advantages of using volitions are limited. This is because they feed off of alternative conceptualisations that may be better suited at rationalising voluntariness overall, including from a descriptive viewpoint. Therefore, it is preferred that they are addressed in that specific context.

In this context, whilst volitions are to a certain extent useful in conceptualising voluntary movement, it is argued that they do not help us understand what it is about movement that makes it voluntary. For example, they do not illustrate the difference between a reflex and a voluntary movement. Moreover, volitions are not a predominant feature of case law and legislation, as opposed to notions such as control, which are more commonly referred to.<sup>124</sup> As a result, the search for a definition must be expanded to address alternative notions.

## **b. Intention**

### **I. Using intention as a way to conceptualise volitions**

Despite the issues associated with focusing on volitions, it could be possible to maintain the conceptualisation, but in the context of equating the notion with an alternative one. Within volitional theory, it is commonly argued that volitions are akin to intentions or desires.<sup>125</sup> According to Moore, volitions should be seen as a ‘species of intention’ or ‘bare intentions’, in the sense that they are ‘the last executors both of our more general intentions and of the background states of desires and belief that those general intentions themselves execute’.<sup>126</sup> The reason for relating volitions to intentions was described by Moore as a way to counter the common objection that volitions are nothing more than ‘theoretical desperation’, with no purpose or character other than that of being a cause of action.<sup>127</sup> By associating them with intention, a notion

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<sup>123</sup> See Subsection 4.b.I

<sup>124</sup> See Chapter 2.

<sup>125</sup> See Section 4.a.

<sup>126</sup> Moore (n 9) 120-121. This view can be regarded as a refined version of Austin’s categorisation of volitions as desires.

<sup>127</sup> *ibid* 121.

that is widespread both within ordinary language and academic literature, it is intended to provide volitions with an additional, causal character, which is that of mediating between our motivations and our actions.<sup>128</sup> This rationalisation of volitions is common within both classical and contemporary literature.<sup>129</sup> Even where authors do not specifically equate volitions with intentions, they still view the former as a manifestation of the latter. For instance, the very reason why Ginet describes volitions as mental activities is that they resemble other mental states in their ‘intentional content.’<sup>130</sup>

At the same time, such a conceptualisation does not necessarily resolve any of problems identified previously. For example, theorists argued that a reliance on intention in explaining action would lead to an overly lax application of the notion of action, and whilst it is generally the case that intention can clarify how a movement comes about, this would not always be the case.<sup>131</sup> One example that Odegard gives is that of a person who thinks that they are paralysed but, upon being asked to raise their arm, they realise that movement is nevertheless possible.<sup>132</sup> Here, Odegard argues that such a person would be volitional but not intentional in that movement.<sup>133</sup> This is because with the strong belief in the physical disability, there would be no intention to raise the arm, nor to fulfil the request.<sup>134</sup> Other theorists have challenged the connection made between intention and volition on the basis that, whilst the former is merely a positive mental state towards the foreseen consequence of a movement, the latter enjoys a closer, immediate connection.<sup>135</sup> Applied to the legal context, such a categorisation is problematic. On the one hand, if intention is to be understood in its general sense, then talk of foreseen consequences is not explanatory for the voluntariness requirement, which is concerned with bodily movements. On the other hand, even if intention is to be understood differently than in the general sense, this might become too

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<sup>128</sup> *ibid* 131.

<sup>129</sup> Goldman (n 20) 68. Here, Goldman cites classical authors who also regarded volition as a species of desire or intention, such as Locke, Hobbes, or Stuart Mill.

<sup>130</sup> Ginet (n 1) 31.

<sup>131</sup> Douglas Odegard, ‘Volition and Action’ (1988) 25 *AmPhilQ* 141, 150.

<sup>132</sup> *ibid*.

<sup>133</sup> *ibid*.

<sup>134</sup> *ibid*.

<sup>135</sup> Saunders (n 28) 454.

abstract of a rationalisation and could lead us to the same conceptual problems identified in the previous subsection.<sup>136</sup>

## II. Using intention as a standalone concept

Rather than relying on volitions, either separately or understood as an intentional state, voluntariness could be understood through intention or choice as a standalone concept.<sup>137</sup> Section 2 of the present chapter has addressed the potential for basic actions to be described as intentionally basic, in the context of focusing on bodily movements as the target of voluntariness. There, it was accepted that there are valid concerns surrounding the argument that bodily movements are the most basic thing one can intend or choose to do, particularly in the context of skilled actions, where it is arguably harder to distinguish the bodily movement from the description.

At the same time, when it comes to the way in which voluntariness should be defined, intention could nevertheless serve as a suitable concept. It will be remembered from Section 2 that one way to rationalise the relationship between basic and complex acts is one in which the latter are simply descriptions of the former. For example, Davidson argues that the only actions that can be attributable to us are basic ones, with the circumstances and results of those actions amounting to mere descriptions.<sup>138</sup> What is more significant here is that the author placed a particular emphasis on intention. Starting from the argument that any action is essentially a basic one that can be described in multiple ways, or primitive (basic) ‘under some description’, for Davidson it follows that the action is also intentional ‘under some description’.<sup>139</sup> For instance, in the case of someone driving – essentially moving their arms and feet, with the driving merely a description of the

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<sup>136</sup> See the following Subsection, II.

<sup>137</sup> Intention and choice are discussed jointly, considering that they have been referred to collectively, particularly within causal theories of action, as sources of action. See for example Enç (n 22) 44; and Moore (n 9) 45. In addition, choice, understood as preference, has featured heavily within classical philosophy as a constituent of the will. See for example John Locke in Bourke (n 93) 37: will is ‘nothing but a power, an ability, to prefer or choose.’

<sup>138</sup> Davidson (n 13) 59.

<sup>139</sup> *ibid* 61. See also R A Duff, *Intention, Agency and Criminal Liability* (Blackwell 1990) 41.

primitive bodily movement – that person would not necessarily have to intend to drive, but instead intend to move their arms and feet. Such a conceptualisation might be able to alleviate some of the concerns related to skilled actions, as there is no specific requirement for the intention to apply to bodily movements solely. For example, in the case of someone talking, the agent would not necessarily have to intend those movements that help produce sounds.

In addition, from a legal viewpoint, relying on intention or choice would fit within wider responsibility theories. For example, according to ‘choice’ theorists, criminal responsibility rests on a culpable choice made by the agent from ‘an acceptable range of choices’.<sup>140</sup> In the case of involuntariness, what the agent lacks is an ability to make a free decision to move. This approach to attribution is focused on the autonomy and free will of the agent, and is one that is prevalent within legal theory.<sup>141</sup> For instance, Moore argues that criminal law protects ‘the good that is choice’ by preventing sanctions being enforced where that choice is not freely made.<sup>142</sup> This is also reflected within legislation, for instance in the MPC, which includes in its list of involuntary actions those bodily movements that are ‘not a product of the effort or determination of the actor’.<sup>143</sup> Moreover, it relates to the utilitarian goal of liberal criminal law, which balances the prevention of crime against the promotion of free choice, to which Moore also refers.<sup>144</sup> At the same time, given that retributive approaches to punishment aim to inflict on offenders the suffering they deserve for their behaviour, free will is central to the justification of retribution. In a liberal society dedicated to upholding people’s free will and moral responsibility, one cannot deem an agent as deserving of punishment unless they made that choice willingly.<sup>145</sup>

At the same time, it is important not to overstate the importance of criminal responsibility theories for the purposes of voluntariness. While the requirement is concerned primarily with autonomy and agency in movement, its role is not that of assigning blame and characterising one as culpable

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<sup>140</sup> Victor Tadros *Criminal Responsibility* (OUP 2010) 22.

<sup>141</sup> *ibid* 61.

<sup>142</sup> Michael S Moore, ‘Choice, Character, and Excuse’ (1990) 7 SocPhil&Pol’y 29, 33.

<sup>143</sup> MPC, s. 2.01(2)(d).

<sup>144</sup> Moore (n 142) 33.

<sup>145</sup> Larry Alexander and Kimberly Kessler Ferzan, *Crime and Culpability* (CUP 2012) 320.

for the consequences or meaning of their movements. Criminal responsibility looks to the totality of voluntariness, *actus reus* and *mens rea* analyses, issuing moral judgements primarily in relation to the wider set of circumstances surrounding a proscribed situation or results. In contrast, focusing solely on whether an agent intended to move their body or not does not reveal as much in terms of their culpability. To a large extent, it is this confusion between voluntariness and other criminal responsibility considerations that has contributed to the categorisation of automatism as a defence, viewed in some way as an excuse to a person's lack of choice or capacity to adhere to the law.<sup>146</sup> Instead, viewed as an intentional choice to move one's body – or not to move, in the case of omissions – a voluntary movement would not go further than reflecting freedom and autonomy to move in accordance with their intentions, desires etc.

From a practical standpoint, relying on intention or choice to rationalise voluntariness is not necessarily too broad, considering that, as previously argued, the target of the voluntariness requirement is bodily movements, rather than circumstances or results. Therefore, as long as the agents intends to perform a bodily movement or makes a choice to move their body, the movement can be categorised as voluntary and subsequently assessed in accordance to the relevant offence criteria.<sup>147</sup> However, there are certain disadvantages of adopting such a model, which can be traced back to the aforementioned normative considerations.

The reliance on intention to describe voluntariness can introduce confusion within the criminal legal framework, especially if one follows Davidson's description of action, according to which bodily movements are all the actions we ever do, as 'the rest is up to nature'.<sup>148</sup> Hence, it is not actions as such that we may concentrate on, but rather on descriptions of actions.<sup>149</sup> As discussed in relation to the voluntariness requirement, we can focus on movements in order to understand

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<sup>146</sup> See Chapter 1.1.b.

<sup>147</sup> Even in relation to wider *mens rea* considerations, it can be argued that the choice theory is also applicable to behaviour that is negligent, as opposed to intentional. For instance, as Duff argues, this theory 'specifies a minimal condition of liability, which is satisfied alike by a wilful murder and by one who negligently causes death', as long as there is 'effective choice' on the agent's part, in other words, the agent would have a 'fair opportunity' to be in a position to obey the law should they choose to do so. See R A Duff, 'Choice, Character, and Criminal Liability' (1993) 12 Law and Philosophy 345, 347.

<sup>148</sup> Davidson (n 13) 59.

<sup>149</sup> *ibid* 46.

whether we could attribute them to an agent and describe them in certain way, e.g. an assault, a murder etc. For Davidson, the mark of agency rests in the intentionality of actions, ‘under some description’.<sup>150</sup> That is, as long as intention applies to a description such as a consequence, a person can be categorised as an agent of an action. Certainly, such conceptualisation would match our normal view of action, for people generally move their bodies with a particular purpose or reason, with the physical movement not always the most important consideration, as opposed to what one may try to achieve.<sup>151</sup> For instance, an agent may well not care whether they kill a victim by pressing the trigger, pouring poison in their drink etc. However, using this argument, saying that ‘the agent intended to kill the victim’ is the same as ‘the agent intended to press the trigger’ would certainly lead to a looser understanding of voluntariness and muddy the waters between voluntariness and wider *mens rea* considerations. Would the notion be understood in the same way as it is in the context of *mens rea* assessments? For example, would a distinction be made between direct and oblique intention, i.e. between those cases in which the consequence of one’s action is the agent’s aim and those in which the consequence is foreseen as a ‘virtual, practical or moral’ certainty?<sup>152</sup> As intention constitutes an essential part of the *mens rea* of multiple offences, rationalising voluntariness using this terminology could lead us to difficulties and force us to create separate descriptions to be used in different cases, one when the voluntariness of the defendant is brought into question and one where the mental aspect is a determining aspect of criminal responsibility.

In addition to conceptual confusion, adopting the view that agency is reflected through intention may be under-inclusive in the sense that not all voluntary actions are intentional. As Duff argued, whilst intended action is central to agency, it is not exhaustive of it.<sup>153</sup> Despite most action being characterised by a ‘rich structure of intention’, there are some movements such as scratching one’s

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<sup>150</sup> *ibid.*

<sup>151</sup> For a discussion on the relevance of reasons for understanding of action, see R A Duff, *Intention, Agency and Criminal Liability: Philosophy of Action and the Criminal Law* (Basil Blackwell 1990) 47-51; and John R Searle, ‘Consciousness, Free Action and the Brain’ (2000) 7 *Journal of Consciousness Studies* 3.

<sup>152</sup> See for example Keating and others (n 83) 149.

<sup>153</sup> Duff (n 6) 305.

nose or stretching one's arm, which can be at best categorised as purposive.<sup>154</sup> This counterargument is also acknowledged by Davidson, who states that 'although intention implies agency, the converse does not hold.'<sup>155</sup> That is, certain types of movements could nevertheless reflect one's agency, despite the absence of intention. As such, viewing voluntary movement as intentional may not be appropriate for the purposes of producing a legal standard, as it would serve to unnecessarily narrow the definition of voluntariness.

### III. Conscious intentions

Excluding intention due to its potential for being under-inclusive can also be attributed to the frequent coupling between intention and consciousness as a way to differentiate between voluntary movements and involuntary ones or pre-movement processes.<sup>156</sup> Courts often use the notions of voluntariness and consciousness interchangeably, for instance referring to the requirement of 'a conscious decision' to make a specific bodily movement,<sup>157</sup> or describing consciousness as 'a *sine qua non* to criminal liability'.<sup>158</sup> Rationalising voluntary movements as intentional could explain why consciousness is often used in cases featuring involuntariness, especially as the term is often coupled with intention within action theory. For instance, according to Davis, intentions rely on 'a significant background of knowledge and self-consciousness'.<sup>159</sup> Moreover, it would be compatible with those theories within the philosophy of action which state that voluntariness is found through the conscious generation of intentional action.<sup>160</sup>

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<sup>154</sup> *ibid* 306.

<sup>155</sup> Davidson (n 13) 45.

<sup>156</sup> Child (n 3) 9.

<sup>157</sup> *Murray v The Queen* [2002] HCA 26, [49] (Gummow and Hayne JJ).

<sup>158</sup> *Rabey v R* [1980] 2 SCR 513, 545 (Martland, Ritchie, Pigeon and Beetz JJ). For further information see Chapter 2.

<sup>159</sup> Wayne A Davis, 'A Causal Theory of Intending' (1984) 21 *AmPhilQ* 43, 51: 'intending requires a significant background of knowledge and self-consciousness.'

<sup>160</sup> Zhu (n 112) 253. In fact, even within volitional theories, volitions are understood as conscious occurrences or changes. See for example Ripley (n 28) 145; and Moore (n 9) 257: 'Without consciousness the subpersonal agencies do not represent our willing or our action'.

However, just as the case is with intentions as a standalone concept, to focus on conscious intention would discard certain types of movements that one could nevertheless be attributed to an agent. If we adopt the classifications of actions as ‘intentional under some description’, following Davidson, there would be no need to establish whether someone consciously intended every bodily movement. On one hand, this would allow us to escape the criticism related to skilled movement identified earlier in the chapter, as there would be no need for the agent to be aware of each movement performed in pursuance of a goal.<sup>161</sup> That is, one would not need to be consciously aware of their fingers moving whilst tying shoe laces. On the other hand, some movements may be described as voluntary without necessarily being conscious. For instance, when it comes to habitual movements, which have been frequently deemed as voluntary within legal scholarship,<sup>162</sup> it is not clear whether they are conscious as well. For instance, Moore makes a distinction between the unconscious and the pre-conscious, where in the case of the latter, it would still be possible for some content to be ‘summoned into conscious awareness’.<sup>163</sup> In other words, the agent could bring their awareness to the habitual movement. Examples may include idly tapping one’s foot to the beat of the music, only later realising that the movement is being produced. As such, those movements that we make ‘where our mind is somewhere else’ could be consciously intended, therefore voluntary.<sup>164</sup>

At the same time, the presence of an ability to bring habitual movements into conscious awareness is not overwhelmingly supported and illustrated within criminal legislation. For instance, the US MPC makes a distinction between conscious and habitual movements, with both being categorised as voluntary.<sup>165</sup> Within action theory, Shapira considers Moore’s approach to habitual actions ‘highly questionable’ from an empirical perspective, relying on the absence of sufficient

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<sup>161</sup> See Section 2.a; and Child (n 3) 12.

<sup>162</sup> Law Commission (n 93) A.48. See also Jeremy Horder, ‘Pleading Involuntary Lack of Capacity’ (1993) 52 CLJ 298, 302; and Child (n 3) 12. See however Yaffe (n 79) 176: ‘We treat habitual bodily movements, that is, as though they were voluntary acts in the legal sense, even though we have no idea if they are in fact’.

<sup>163</sup> Moore (n 9) 151.

<sup>164</sup> *ibid* 152.

<sup>165</sup> MPC s.2.01(d), where it is stated that movements which are ‘not the product of the effort or determination of the actor, either conscious or habitual’ are not voluntary

evidence to show that movement can be brought into conscious awareness.<sup>166</sup> Others such as Marcel argue that there are various ways in which intentions are not conscious in nature, including habitual movements or those where one becomes temporarily unaware of a certain goal.<sup>167</sup> In the latter case, this could be actions such as absentmindedly walking up the stairs to retrieve something but getting into bed instead.<sup>168</sup> In the former case, examples of intentional habitual movement could include, as Mele and Moser argue, picking up the receiver of a desk-phone upon hearing it ring, as this ‘does not ordinarily include giving oneself a directive to answer the phone’.<sup>169</sup> This can be associated to the discussion surrounding skilled movement, for it could be argued that once a movement is learned and produced consistently, movement such as picking up a phone could become habitual.

Overall, whilst rationalising voluntariness based on intentions comes closer to the objective of preserving individuals’ autonomy, this approach does not necessarily go far enough in fully reflecting the agency of individuals. This is primarily the case, given that it may be under-inclusive and thus exclude movements that the criminal law may nevertheless be interested in categorising as voluntary. Indeed, this may be viewed as a circular argument, for unless the law develops a definition of voluntariness, it is hard to ascertain by what standards would one categorise habitual movement as voluntary to begin with. However, regardless of normative considerations, a rationalisation of voluntariness as intentional movement may be inappropriate in practice, given the already existent focus on intention within *mens rea* assessments. In other words, it may lead to further conceptual issues rather than help us understand what it is about bodily movements that makes them voluntary. Whilst intentions could help us differentiate mere reflexes from physical movements, such terminology implies an assessment that goes beyond establishing the minimum condition for assigning criminal responsibility. Specifically, it could lead to considerations that relate more to circumstances and results, moving in the territory of

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<sup>166</sup> Shapira (n 22) 364.

<sup>167</sup> Anthony Marcel, ‘The Sense of Agency: Awareness and Ownership of Action’ in Johannes Roessler and Naomi Eilan (eds), *Agency and Self-awareness: Issues in Philosophy and Psychology* (Clarendon Press 2003) 60.

<sup>168</sup> *ibid.*

<sup>169</sup> Alfred R. Mele and Paul K. Moser, ‘Intentional Action’ (1994) 28 *Noûs* 39, 43.

culpability and moral blameworthiness, rather than focusing on the voluntariness of bodily movements. In this context, the final subsection will address the potential for control to be utilised as the separating line between involuntary and voluntary movement.

### c. Control

One way to tackle the descriptive challenges associated with using volitions and intentions as markers of voluntariness could be to use control as a guiding definition of the voluntariness requirement. Within the philosophy of action, control has often been linked to voluntariness in the conceptualisation of human action, going as far back as Aristotle's *Nicomachean Ethics* and the emphasis on control as enabling us (not) to act in a particular way.<sup>170</sup> A similar focus can be identified in modern theories of action. For example, Sellars argues that basic actions are 'as securely under our voluntary control as anything could be'.<sup>171</sup> Similarly, McCann argues that what makes the difference between a bodily action and a simple response is that it is 'brought about through the voluntary control of the agent'.<sup>172</sup> Here, it is not clear whether the reference to 'voluntary' control implies that there is such a thing as involuntary control or whether 'voluntary' is to be understood loosely, as intentional, in the sense that an agent would exercise bodily control in the pursuance of an intention, goal etc. For present purposes, the analysis surrounding control will follow on the assumption that one's exercise of control may reflect their voluntariness, i.e. that there is no such a concept as 'involuntary' control. In addition, within legal scholarship, associations between control and voluntariness are generally made on the assumption that voluntary movement is comparable to controlled movement.<sup>173</sup>

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<sup>170</sup> Aristotle, *Nicomachean Ethics*, Book III: *Moral Virtue*, Chapter 5 (W D Ross tr): 'actions and states of character are not voluntary in the same way; for we are masters of our actions from the beginning right to the end, if we know the particular facts, but though we control the beginning of our states of character the gradual progress is not obvious any more than it is in illnesses; *because it was in our power, however, to act in this way or not in this way, therefore the states are voluntary.* (emphasis added) <<http://classics.mit.edu/Aristotle/nicomachaen.3.iii.html>> accessed 11 February 2021

<sup>171</sup> Wilfrid Sellars, 'Volitions Re-Affirmed' in Brand M and Walton D, *Action Theory: Proceedings of the Winnipeg Conference on Human Action*, Held at Winnipeg, Manitoba, Canada, 9-11 May 1975 (D. Reidel 1975) 50.

<sup>172</sup> McCann (n 118) 461.

<sup>173</sup> This is discussed shortly.

Some conceptualisations of control within action theory link it with the intentional quality of an action. In other words, whilst intentions may be viewed as the source of voluntary movement, executive control over movements is simply the physical mechanism whereby intentions are being implemented.<sup>174</sup> Certainly, the majority of movements one makes are performed with a particular desire or intention, having made a conscious choice, and rely on motor control mechanisms to implement and monitor that particular movement. However, this does not automatically mean that the reverse applies, i.e. that control is not applicable to other movements that may not necessarily be intentional. For instance, control may actually be used to explain why movements such as those identified in the previous section may nevertheless be categorised as voluntary. According to Steward, control can clarify why some types of ‘sub-intentional’ or habitual actions ‘are’ nevertheless actions.<sup>175</sup> When someone acts sub-intentionally, they exercise the power to change their bodies, that is, it is up to them whether or not that movement occurs.<sup>176</sup> Following this, a voluntary movement is characterised by the exercise of bodily control so that depending on the context, the agent is physically able to either ‘bring about some particular movement of its body’ or ‘not to bring it about’.<sup>177</sup> Adopting this view would alleviate some of the concerns identified previously in relation to the possibility that, understood as conscious intention, voluntariness may be under-inclusive.

One of the main advantages of such a model is that it is also a strong candidate for ‘a minimal condition of agency’.<sup>178</sup> This could be the case even in those ‘sub-intentional’ or habitual actions referred to by Steward for, according to her, the mark of agency does not necessarily lie in our fully intentional movements, but rather in our:

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<sup>174</sup> Zhu (n 112) 251.

<sup>175</sup> Helen Steward, ‘Sub-Intentional Actions and the Over-Mentalization of Agency’ in Constantine Sandis (ed), *New Essays on the Explanation of Action* (Palgrave 2009) 299.

<sup>176</sup> *ibid* 308.

<sup>177</sup> *ibid*. The ability not to bring about a bodily movement is closely tied to omissions liability within the criminal law. See above, Part 2.a.

<sup>178</sup> Duff (n 6) 312.

capacity to prevent altogether, stop in its tracks, reverse, alter, change the direction and speed of, or otherwise affect the motion in question, *whether or not I actually chose to exercise it in a given case*.<sup>179</sup>

This argument suggests that, following a control model, agency may be exercised even in those cases involving habitual actions. Such a model would therefore cover those cases which the conceptualisation of voluntariness based on intention did not.

From a normative perspective, a focus on control as promoting one's agency in moving would contribute to enhancing the role of the voluntariness requirement, namely that of reflecting the autonomy and agency of individuals. For instance, Ginet argues that we 'have freedom of action at a given moment if more than one alternative action is then *open to me*'.<sup>180</sup> Such argument can be traced back to the oft-cited Principle of Alternate Possibilities (PAP), according to which:

a person is morally responsible for what he has done only if he could have done otherwise.<sup>181</sup>

What intuitively grounds PAP is the idea that control is enhanced through alternate possibilities of action, and that such enhanced control is essential for free action and moral responsibility.<sup>182</sup> For the purposes of the voluntariness requirement, we are more interested here in one's freedom of movement, rather than moral responsibility, in that the former should be seen as a pre-condition for the latter. Relying on an exercise of bodily control within the sphere of alternate possibilities would satisfy a libertarian view, based on the existence of freedom of action.<sup>183</sup> In other words, free action rests on our agential control and the ability to follow a course of action out of many possible ones at any given moment.<sup>184</sup> This stance rests on the libertarian focus on agent causation,

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<sup>179</sup> Steward (n 175) 302 (emphasis added).

<sup>180</sup> Ginet (n 1) 90.

<sup>181</sup> Harry G Frankfurt, 'Alternate Possibilities and Moral Responsibility' (1969) 66 *The Journal of Philosophy* 829. PAP has been coined by Frankfurt, one of the main opponents to the view that alternatives for action are required for moral responsibility.

<sup>182</sup> Ishtiyaque Haji, 'Alternative Possibility, Luck, and Moral Responsibility' (2003) 7 *The Journal of Ethics*, 253, 255.

<sup>183</sup> Christopher Evan Franklin, 'Farewell to the Luck (and *Mind*) Argument' (2011) 156 *Philosophical Studies* 199, 200.

<sup>184</sup> *ibid* 203.

which, understood in the context of control, purports the idea that control facilitates the manner in which an agent's 'deliberative causal process' produces an event.<sup>185</sup> That is, an agent causes an event – a bodily movement, in the present context – by exercising control.

PAP has produced wide disagreement within philosophical theories of action, contributing to extensive debates, particularly that between free will and determinism. Specifically, if our movements are pre-determined by 'the laws of nature' or events in the distant past, one cannot argue that the consequences of those laws or events, including our bodily movements, are up to us.<sup>186</sup> That is, a challenge from determinism would mean that we do not move freely, autonomously. This is because, under this view, our physical movements should be viewed as 'part of an unalterable causal chain', making no other course of action available to us.<sup>187</sup> Taking the view of 'hard determinists', who claim that responsibility and determinism are not compatible, this would undermine any retrospective evaluation from criminal law, as a person could not be held to account for a movement they were inevitably going to do.<sup>188</sup> Other incompatibilists defend the so-called 'libertarian metaphysics' position, according to which, notwithstanding the incompatibility between determinism and free will, we are nevertheless able to exercise a level of agency within the causal processes of the world.<sup>189</sup> However, this has been criticised on the basis that it 'makes us all gods in an otherwise unbroken chain of causal relations',<sup>190</sup> as well as the fact that it forces us 'to adopt a panicky and exceptionally implausible metaphysics in a material universe'.<sup>191</sup>

Alternatively, one can adopt a compatibilist approach, whereby regardless of whether determinism is true, we can assume that we possess those capacities needed to initiate movement freely.<sup>192</sup> For instance, Wolf suggests that we can still be attributed with those actions that

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<sup>185</sup> Haji (n 182) 257.

<sup>186</sup> Peter van Inwagen, *An Essay on Free Will* (OUP 1986) 16.

<sup>187</sup> Jeremy Horder, 'Determinism, Liberalism, and Criminal Law' (1996) 49 CLP 159, 161.

<sup>188</sup> Larry Alexander, Kimberly Kessler Frezan, and Stephen Morse, *Crime and Culpability: A Theory of Criminal Law* (CUP 2009) 13.

<sup>189</sup> *ibid.*

<sup>190</sup> Moore (n 9) 74.

<sup>191</sup> Alexander, Frezan, and Morse (n 188) 14.

<sup>192</sup> *ibid.*

originate from within ourselves, when we are the ones who initiate them.<sup>193</sup> Here, however, Wolf acknowledges that whatever course of action we take, there are factors that shape our understanding of the world and our values, to the point that we cannot argue that we are fully autonomous.<sup>194</sup> Therefore, as long as responsibility is not grounded in an ‘autonomous metaphysically independent chooser’, we can still be held accountable for our decisions.<sup>195</sup> At the same time, autonomy within the criminal law does not necessarily have to mean autonomy from causal determinism, for the law already operates on an understanding that circumstances such as difficult personal histories or even disordered personalities are not sufficient to bar punishment. This can be attributed to more consequentialist interests, so that in order to protect society, the law ‘accepts the thesis that all men are invested with free will and capable of choosing between right and wrong’.<sup>196</sup>

Such debates regarding the existence of free will have featured prominently across multiple disciplines, including law, philosophy and neuroscience. For present purposes, the discussion shows that, on one hand, there is a case to be made against the idea that we are completely free to move otherwise. On the other hand, however, until empirical evidence disproves the assumptions that the law makes, and considering that the criminal law remains grounded in the ideals of liberal democracy, it is argued that value must still be given to our autonomy and agency in moving. That is, this analysis operates on the premise that we are free to move otherwise, at least until it can be conclusively shown that determinism is true.

From a criminal legal perspective, control has often been associated with capacity as the basis for criminal responsibility. The majority of legal cases in which involuntariness features are discussed under the heading of automatism,<sup>197</sup> frequently categorised as an excusatory defence by courts and scholars alike.<sup>198</sup> However, as argued so far, such classification is inappropriate

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<sup>193</sup> Susan Wolf, ‘Freedom Within Reason’ in James Stacey Taylor (ed), *Personal Autonomy: New Essays on Personal Autonomy and its Role in Contemporary Moral Philosophy* (CUP 2005) 260.

<sup>194</sup> *ibid.*

<sup>195</sup> *ibid* 269.

<sup>196</sup> *State v Sikora* 44 N.J. 453 (1965), 470.

<sup>197</sup> Chapter 2, Sections 5-9.

<sup>198</sup> Chapter 1.1.b.

considering that a lack of voluntariness is not an excuse, but rather an illustration that an element of the offence has not been committed. Viewed as an excuse, the law has positioned automatism as an acknowledgement that a proscribed event or state of affairs occurred, but exclude the individual from liability because of the condition of being involuntary.<sup>199</sup> Approaching one's lack of voluntariness from the perspective of a defence has meant that the focus of the assessment has been on the agent's culpability and moral responsibility overall, rather than solely on their agency and autonomy in moving. However, it is noteworthy that the criminal law has applied automatism based on the defendant's lack of capacity to control themselves. The leading case on automatism in England and Wales, *R v Coley*, focuses on the 'complete destruction of voluntary control'.<sup>200</sup>

While not necessarily endorsing the emphasis on a *total* loss of control, the link between criminal responsibility and control is widespread within legal scholarship as well. The idea that an agent is not culpable where they had no ability or opportunity to control themselves, or could not have done otherwise as they did, is a primary justification for not punishing individuals.<sup>201</sup> Leading scholars such as Glanville Williams or Hart have also referenced control as an important element of liability. For instance, according to Glanville Williams, people should not be held responsible for something outside their physical control and therefore, an act should not be deemed voluntary unless a person was able to control it.<sup>202</sup> This is an acknowledgement of Hart's older argument that as human beings, if we are to succeed in acting, we must have the capacity to control the physical movement of our bodies.<sup>203</sup>

The focus on capacity to control has also been emphasised by the Law Commission in its report on the automatism and insanity 'defences'. According to the Commission, no criminal

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<sup>199</sup> Paul H Robinson, 'Criminal Law Defenses: A Systematic Analysis' (1982) 82 ColumLRev 199, 221.

<sup>200</sup> *R v Coley* [2013] EWCA Crim 233, [22] (Hughes LJ).

<sup>201</sup> Simester (n 7), 408. See also Melissa Hamilton, 'Reinvigorating Actus Reus: The Case for Involuntary Actions by Veterans with Post-Traumatic Stress Disorder' (2011) 11 Berkeley Journal of Criminal Law 340, 341; and

<sup>202</sup> Dennis J Baker, *Glanville Williams' Textbook of Criminal Law* (3<sup>rd</sup> edn, Sweet & Maxwell 2012) 901; and ; and Stanley Yeo, 'Putting Voluntariness Back into Automatism' (2001) 32 VUWLR 387, 392, where the author argues that behaviour occurring whilst under a state of sleepwalking should be categorised as involuntary precisely because of the agent's inability to control their behaviour, despite the fact that such behaviour might still be goal-directed.

<sup>203</sup> Hart (n 76) 91.

responsibility for acts or omissions should be attached where people lacked capacity to control their movement.<sup>204</sup> The report focused on overhauling automatism and insanity, proposing to abolish the two and replace the latter with a new defence of ‘not criminally responsible by reason of a recognised medical condition’.<sup>205</sup> In relation to insanity, the defence would apply where the agent was involuntary due to a medical condition – currently ‘insane’ automatism – but also where they did commit the elements of the offence, but they lacked capacity to appreciate the wrongfulness of what they were doing due to a medical condition. The common law rules of the automatism ‘defence’ would no longer apply.<sup>206</sup> Instead, defendants would be acquitted if they lacked the capacity to control themselves due to a reason other than a recognised medical condition.<sup>207</sup>

The present thesis does not support the Commission’s categorisation as a ‘defence’ in those instances in which individuals lose voluntariness, whether that is attributable to a medical condition or not. With the exception of cases of insanity in which defendants were voluntary, but lacked the ability to comprehend the nature or wrongfulness of their behaviour, the examples referred to by the Commission reflect a denial of an offence, rather than a defence. A lack of voluntariness, in contrast with a lack of appreciation as to the meaning of one’s movement, is concerned with a physical ability and freedom to move, as opposed to moral culpability overall. To position both instances within the same category is conceptually problematic.<sup>208</sup> However, beyond adequate labelling, the Commission stated that the new defence would apply where ‘the accused suffered a *total* loss of a relevant capacity’.<sup>209</sup> Here, one of the available ‘limbs’ of the defence would be that of ‘capacity to control’, applicable where the defendant experienced a ‘complete inability’ to control their actions due to a medical condition.<sup>210</sup> The report briefly related the lack of control with the issue of ‘involuntary behaviour’, stating that the issue is

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<sup>204</sup> Law Commission (n 93) para A.60.

<sup>205</sup> *ibid* para 10.7.

<sup>206</sup> *ibid* para 10.17.

<sup>207</sup> *ibid* para 10.18

<sup>208</sup> See Chapter 1.1.b.

<sup>209</sup> Law Commission (n 93) para 4.4. (emphasis in text)

<sup>210</sup> *ibid* para 4.3.

sometimes referred to as one of ‘volition’, and what is at stake is the fact that “‘involuntary actions” that cannot be prevented’.<sup>211</sup> That is, involuntariness should not attract responsibility due to the lack of ability to control oneself, described as the lack of ‘capacity to do otherwise’.<sup>212</sup>

From a descriptive viewpoint, focusing on bodily control to rationalise voluntary movement would certainly be a more suitable concept than the ones discussed so far. Rather than focusing on one’s rationale and awareness of moving, which, it is argued, are matters for subsequent analyses from the criminal law, an emphasis on physical capacity would provide the minimum necessary in order for an agent to be attributed with that particular movement and be categorised as autonomous. However, in contrast with the notion of capacity present within criminal legal theory, capacity to control would relate here to the ability to regulate one’s movements, rather than circumstances, consequences etc. That is, we are not concerned with capacity as a theory of criminal responsibility, but rather as a physical ability. Moreover, given the abstract nature of concepts such as volition, focusing on control, which is presumably easier to identify, would be preferable. Once the agent is established as the author of that specific movement, then the criminal law can add meaning to it, e.g. describe it as an assault, a criminal damage etc., and ascertain whether the defendant is culpable.

At the same time, it is not specifically clear how the legal requirement should be defined in relation to control. The ability ‘to do otherwise’ has been frequently referenced in both legal and philosophical literature.<sup>213</sup> Applied to the present context, the voluntariness requirement could focus on the presence of bodily control, understood through the ability to *move* otherwise. However, this does not automatically mean that all conceptual and practical uncertainties are resolved. One significant limitation is that the degree of control necessary to be able to move otherwise is not easily identifiable. For example, the draft Criminal Code proposed by the Law Commission in 1989 recommended a test of identifying involuntariness based on one’s lack of

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<sup>211</sup> *ibid* para 4.35

<sup>212</sup> *ibid* para A.7.

<sup>213</sup> See above, pp 99-100.

‘effective control’,<sup>214</sup> primarily in order to avoid cases such as that identified in *Broome v Perkins*,<sup>215</sup> where the defendant’s movement appeared to be goal directed but he could not have moved otherwise as he did.<sup>216</sup> This approach was explored by the Law Commission but found to be undesirable primarily because of the lack of certainty as to the meaning of ‘effective’ and the judgement of degree and value that would have to be implemented in the courts.<sup>217</sup> In the Commission’s view, reliance on ‘effective control’ would provide courts with a ‘flexible standard’, such that ‘something close to total loss of control’ would be needed in driving cases.<sup>218</sup> Therefore, rather than engaging in time-consuming assessments regarding the meaning of ‘effective’ or enforcing a definition that is not equally applicable to categories of involuntary movement, the report suggested that ‘a total loss of capacity to control his or her actions’ would be preferred.<sup>219</sup> On the one hand, implementing a standard that relies on judgements of degree, to the point that categories of cases would be treated differently, could potentially lead to the same issues identified in the previous chapter, particularly when it comes to introducing culpability into this stage of the assessment. On the other hand, relying on a standard of ‘total loss of control’ effectively means conceptualising it similarly to case law.<sup>220</sup> Therefore, this definition maintains some of the uncertainty identified in the present framework and does not necessarily bring us closer to the goal of identifying the essence of the voluntariness requirement.

Beyond the conceptual difficulties mentioned above, the definitions presented by the Commission are not as useful when developing a definition of voluntariness, rather than involuntariness. In particular, a focus on a total loss of capacity to control as a way to identify involuntariness does not necessarily find a counterpart when conceptualising voluntariness. For example, a definition of voluntariness based on the agent exercising a *complete* ability to control themselves and move

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<sup>214</sup> Law Commission, *Criminal Law: A Criminal Code for England and Wales. Volume 1: Report and Draft Criminal Code Bill* (Law Com No 177, 1989) s. 33(1)(a).

<sup>215</sup> (1987) 85 Cr App R 321.

<sup>216</sup> Law Commission, *Criminal Law: A Criminal Code for England and Wales. Volume 2: Commentary on Draft Criminal Code Bill* (Law Com No 177, 1989) para 11.4.

<sup>217</sup> Law Commission (n 93) paras 5.116-7.

<sup>218</sup> *ibid.*

<sup>219</sup> *ibid* para 5.118.

<sup>220</sup> *R v Coley* [2013] EWCA Crim 233 [22] (Hughes LJ): automatism as the ‘complete destruction of voluntary control’.

otherwise is unsuitable, for there is no reason to suggest that an agent requires total control in order to initiate movements or refrain from moving. Equally, a definition of voluntariness based on the exercise of effective control to move otherwise may not be as appropriate, given that the terminology of ‘effective’ could potentially invite assessments regarding the quality and meaning of the movement. This may include questions such as whether the movement is consistent with the agent’s goals etc. As argued throughout, such considerations should not be addressed at this initial stage.

One potential concept focusing solely on physical abilities may be that of sufficiency, in the sense that voluntariness may be identified through the agent exercising sufficient control, to the effect that they are able to move otherwise. Certainly, replacing the notion of ‘effective’ with that of ‘sufficient’ would still invite judgements regarding the quality and degree of the movement. However, these would be limited solely to the agent’s physical ability, rather than their ‘success’ in achieving a particular objective. At the same time, limitations could remain in that the threshold for retaining sufficient control may not be easily identifiable, considering individual differences. Whilst these should be acknowledged, it is argued that such an approach would still amount to an improvement from the current – and proposed – framework. In this context, a provisional definition of the voluntariness requirement could be the following:

**the exercise of sufficient bodily control to the effect that one can move otherwise**

Before moving on to assess the suitability of this definition from an empirical perspective, in Chapter 4, it is worth briefly acknowledging conceptual limitations of the proposed definition. As mentioned earlier, the focus on alternative movement can be traced back to the principle of alternate possibilities (PAP), a principle which has been widely debated within the philosophy of action. A common challenge to this principle is that alternatives are not relevant to the question of freedom of action, for one may exercise agency even in their absence. Take an example

provided by McKenna, that of a person jumping into the air because they wanted to.<sup>221</sup> What if, unbeknownst to them, their brain had been implanted with a mechanism allowing a group of neurologists access to their bodily movements?<sup>222</sup> Had the person formed an intention not to jump, the neurologists would have intervened and used the mechanism to cause the person to jump.<sup>223</sup> Following the control model of voluntariness, which is not concerned with intention, but with the ability to move otherwise, this person should be categorised as involuntary. Moreover, a finding of involuntariness would prevent subsequent assessments from taking place, such as those surrounding the circumstances and reasons behind moving in that way, whether the agent wanted to jump or not etc. However, this may be at odds with what we would expect criminal responsibility to attach for. Such example bears the question of whether we would expect voluntariness to rest on our impression of freedom to move otherwise, rather than actual capacity to exercise self-control.

Other theorists such as Ginet or Kane have sought, however, to challenge such counterarguments to PAP, focusing on the timing of such ‘controller’ examples.<sup>224</sup> For instance, a controller such as the neurologist in the jumping example would have no prior knowledge as to whether one will jump freely or not. That is, the neurologist may wait and see whether the movement is produced or not, only then intervening to activate the mechanism in the absence of a jump. At this stage, however, it would be too late for the neurologist to intervene, for the agent would have already initiated movement freely, in the presence of alternative possibilities. Alternatively, if the neurologist sought to avoid such a scenario, they would pre-emptively set up the mechanism so that the person jumps irrespective of their intention to do so or not. Here, no alternative

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<sup>221</sup> Michael S McKenna, ‘Alternative Possibilities and the Failure of the Counterexample Strategy’ (1997) 28 *Journal of Social Philosophy* 71, 72. Such examples are often referred to as Frankfurt-type examples, named after Harry Frankfurt, one of the biggest challengers of PAP. In launching his attack of PAP, a principle that Frankfurt himself has coined as such, Frankfurt has produced examples such as the present one that would supposedly show that moral responsibility does not rely on the freedom to do otherwise. See Harry G Frankfurt (n 181) 829, 831.

<sup>222</sup> McKenna (n 221) 72.

<sup>223</sup> *ibid.*

<sup>224</sup> See for example Carl Ginet, ‘In Defense of the Principle of Alternate Possibilities: Why I Don’t Find Frankfurt’s Argument Convincing’ (1996) 10 *Philosophical Perspectives* 403; and Robert Kane, *Free Will and Value* (SUNY Press 1985) 51 (ft 25); and Keith Wyma, ‘Moral Responsibility and the Leeway for Action’ (1997) 34 *AmPhilQ* 57.

possibility would exist, but the agent would not be responsible either, for they would merely be moving as a conduit of the neurologist's activities. In other words, in a causally undetermined environment based on free movement, a controller cannot manipulate another person without intervening.<sup>225</sup> A person would either be responsible for their undetermined, freely initiated movement – out of alternative ones – or the controller would be responsible for the movements that ensue by virtue of the mechanism.<sup>226</sup>

The abovementioned argument need not be used to fully counter the potential for the ability to move otherwise to reflect agency. Beyond controller-type examples, one could imagine a scenario in which a person may act in accordance to their intentions, even though they may lack the physical ability to move. For instance, in the unlikely event that, unbeknownst to a person, they suddenly develop a condition which leaves them unable to move their bodies, willingly refraining to move may be cast as autonomous regardless of whether or not they can actually do so. In this respect, there is no time lag in between which a person may still exercise a freedom to move otherwise, as is the case with the controller example. For the purposes of the present thesis, this concern should be acknowledged.

Equally, it should be restated that philosophical accounts of action need not be conflated with legal ones, for undue complexity would be introduced into the legal framework and leave it open to challenges from competing philosophical factions. From a philosophical viewpoint, the debate between proponents and challengers of PAP has ignited a sizeable literature, which goes beyond the focus on the freedom to do otherwise as a source of responsibility, to debates surrounding free will and determinism, and particularly the incompatibility between causal determinism and the freedom to do otherwise.<sup>227</sup> What the discussion has shown so far is that, much like concepts such as volition, intention etc., there are descriptive and normative challenges to adopting a legal

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<sup>225</sup> Kane (n 224) 51 (ft 25).

<sup>226</sup> Ibid.

<sup>227</sup> However, to discuss these aspects in greater detail is beyond the remit of the present thesis. For further information see Niels van Miltenburg and Dawa Ometto, 'The Libertarian Predicament: A Plea for Action Theory' (2019) 196 *Synthese* 161; Markus Ernst Schlosser, 'Agent-Causation and Agential Control' (2008) 11 *Philosophical Explorations* 3.

definition of voluntariness based on control. The descriptive challenges relate to the difficulty in identifying the threshold at which an agent would no longer be able to move otherwise. Moreover, normatively, it may be that, in an extremely limited set of circumstances, one may be able to exercise agency and autonomy even in the absence of the freedom to do otherwise. Nonetheless, what makes a control-based model more suitable is that such challenges are less extensive and are easier to address in comparison with other concepts. For instance, one's ability to exercise bodily control is objectively easier to ascertain in comparison with abstract notions such as volitions. Moreover, compared to intention or consciousness, control is preferable as a minimum requirement of responsibility, given that this type of model would focus primarily on physical *abilities*, rather than *rationale* for moving, or *appreciation* of circumstances, results, and so on. Such concerns are certainly relevant for criminal responsibility, but they should be addressed by the criminal law once voluntariness is established. In addition, compared to previous concepts, a control model would encompass a wider array of cases in which agency may nevertheless be reflected, such as habitual movements.

## 5. Conclusion

Having addressed both descriptive and normative aspects surrounding multiple conceptualisations of voluntariness, it is argued that, in contrast with volitions and intentions, the advantages of using a control model are the most persuasive. For instance, compared to a model based on conscious intention, a control model is more comprehensive in including movements that may nevertheless be reflective of one's autonomy and agency. As such, it would not be under-inclusive in its reach. This suggests that judicial conceptualisation of (in)voluntariness on the basis of loss consciousness, as is the case with PTSD or sleepwalking cases, may not be appropriate.<sup>228</sup> At the same time, drawing from philosophical accounts of action, theoretical support can be identified for courts relating to one's absence of voluntariness with that of a lack

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<sup>228</sup> See Chapter 2, particularly sections 5-9.

of control. However, following the present discussion, it is argued that the lack of control need not be complete, as courts have required so far, but merely *sufficient* to render a person unable to move otherwise (including refraining from moving). Moreover, in contrast with legal scholarship, the view adopted in the present thesis is that the focus of the requirement should be placed on bodily movements, also categorised as basic action within philosophical accounts of action. That is, instead of focusing on the effects or circumstances of a particular movement, the law should only focus on the (lack of) bodily movement for the purposes of the voluntariness requirement. Only once the movement is deemed as voluntary should the law move on to assess whether a prohibited event or state of affairs stemmed from that movement, whether it was accompanied by the relevant mental state, and so on.

Where a control-based model may face opposition is in the uncertainty surrounding the requisite degree of control needed to be able to move otherwise. The threshold at which one would no longer be able to move otherwise may differ from person to person, which could potentially lead to confusion or even risk courts creating alternative standards depending on the nature or consequences of a particular movement. In doing so, there is a risk of being faced with similar issues as those currently existing in relation to the application of the automatism ‘defence’. It is hoped that such concerns can potentially be alleviated, at least partially, by expanding from the present analysis and looking to empirical evidence that may produce some clarification, helping to refine and explore the control-based conceptualisation of voluntariness.

In this context, a provisional definition of voluntariness for legal purposes could be the following: **‘the exercise of sufficient bodily control to the effect that one can move otherwise’**. Such a definition would naturally include the ability to refrain from moving, which is seemingly more relevant for the purposes of the criminal law. However, to provide additional strength and explore this argument empirically, it is argued that the analysis would be strengthened by the incorporation of neuroscientific evidence. Such an approach would enable us to reflect on the suitability of the provisional definition and, more widely, on the relevance and potential for neuroscience to influence legal decisions and/or develop standards of criminal responsibility. As

Duff argued, ‘our ordinary concepts must themselves be answerable to, and revisable in light of, “the insights of an advancing science”’.<sup>229</sup> Similarly, Zhu states that philosophical assessments must be addressed alongside empirical evidence when exploring the nature of agency and action.<sup>230</sup> Certainly, there are considerable limitations to incorporating neuroscientific evidence into a legal analysis, which will need to be acknowledged. However, such evidence can nevertheless help test assumptions made so far in the present thesis, as well as contribute to developing research relevant to the growing field of ‘neurolaw’, which seeks to utilise neuroscientific knowledge to inform legal debates.

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<sup>229</sup> Duff (n 6) 246.

<sup>230</sup> Zhu (n 112) 267.

## CHAPTER 4

### UNDERSTANDING VOLUNTARINESS IN A NEUROSCIENTIFIC CONTEXT

#### 1. Introduction

The previous chapter has addressed the concept of voluntariness from a philosophical perspective, provisionally concluding that a legal model based on control is best suited at rationalising the voluntariness requirement, both descriptively and normatively. Specifically, that focusing on one's ability to move otherwise would be most appropriate in terms of categorising one as a voluntary agent. Moreover, the emphasis on the ability to move otherwise would meet the liberal goals of the criminal law to only punish those who move freely, as autonomous agents. To further enrich this hypothesis, it is argued that the analysis would benefit from the incorporation of neuroscientific evidence. Such evidence will contribute towards strengthening our understanding of voluntariness, namely through the empirical exploration of the processes relevant for the concepts used to conceptually define voluntariness. Examples include studies investigating the mechanisms involved in processing competing alternatives of action or those involved in inhibiting movement. Addressing studies focusing on such processes will enable us to reflect on the suitability of the legal test based on control, undertaking a review of the literature and extricating relevant themes from empirical evidence.

From a methodological perspective, this investigation would contribute to the growing field of 'neurolaw' which, as the name suggests, combines neuroscientific with legal studies to produce interdisciplinary research. Studies related to the workings of the human brain have been conducted for centuries, becoming more and more sophisticated from the nineteenth century onwards, for instance with the ability to observe nerve cells under the microscope, or the correlation between brain areas and specific functions, i.e. 'brain localisation'.<sup>1</sup> However, it was

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<sup>1</sup> Bernard Baars and Nicole M Cage, *Cognition, Brain, and Consciousness: Introduction to Cognitive Neuroscience* (2<sup>nd</sup> edn, Elsevier 2010) 27.

not until the 1960s that neuroscience became recognised as a standalone life science dedicated to the study of the brain and the nervous system, with cognitive neuroscience later emerging as an area of research addressing the mechanisms of the mind, like motor function, consciousness, language etc.<sup>2</sup> Given the focus on understanding, and eventually influencing behaviours both in criminal law and cognitive neuroscience, it is not surprising that the two disciplines eventually started exchanging knowledge. This happened particularly with the development of scientific techniques within cognitive neuroscience, as well as the use of such techniques within the courtroom. These include electroencephalography (EEG)<sup>3</sup> in the mid-twentieth century and functional magnetic resonance imaging (fMRI)<sup>4</sup> within the past few decades.<sup>5</sup> In fact, according to Goodenough and Tucker, the ‘explosive spread of new knowledge’ coming from cognitive neuroscience is the one that made neurolaw an ‘inevitable’ development.<sup>6</sup>

For present purposes, introducing neuroscientific evidence into our legal investigation is a natural fit, especially since the level of voluntariness and control that relates to movement is fundamental for both disciplines, in terms of ascribing criminal responsibility and understanding the biological mechanisms underlying human action. Analysing existing research on the nature of voluntary movement and the way in which we restrain or inhibit our movements adds an important empirical layer to our legal investigation, primarily in terms of our underlying physiology. This is done by providing new insights into those faculties or capacities which are not visible to the naked eye but nevertheless essential in initiating and regulating movement. At the same time, before going into detail on the potential for neuroscience to inform legal debates surrounding voluntariness, it is

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<sup>2</sup> Deborah W Denno, ‘The Place for Neuroscience in Criminal Law’ in Dennis Patterson and Michael S Pardo, *Philosophical Foundations of Law and Neuroscience* (OUP 2016) 73.

<sup>3</sup> EEGs record brain activity using electrodes attached to the scalp. These sensors pick up the electrical impulses produced when brain cells communicate with each other.

<sup>4</sup> An fMRI scan uses the same technology as an MRI scan, which is a non-invasive test that takes images of the brain using strong magnetic fields and radio waves. The difference is that whilst an MRI scan produces images of organs/tissue, an fMRI will also show the blood flow in the brain. Therefore, it is helpful in highlighting activation in specific brain areas, showing which parts are involved in mental processes. For more information on the use of neuroscience in the courtroom, see Darby Aono, Gideon Yaffe, and Hedy Kober, ‘Neuroscientific Evidence in the Courtroom: A Review’ (2019) 4 *Cognitive Research: Principles and Implications* 40; and Stephen J Morse, ‘Brain Imaging in the Courtroom: The Quest for Legal Relevance’ (2014) 5 *AJOB Neuroscience* 24.

<sup>5</sup> See for example Francis X Shen, ‘The Overlooked History of Neurolaw’ (2016) 85 *FordhamLR* 667.

<sup>6</sup> Oliver R Goodenough and Micaela Tucker, ‘Law and Cognitive Neuroscience’ (2010) 6 *Annu Rev Law Soc Sci* 61, 62.

important to address overly optimistic claims as to the revolutionary power of scientific evidence for legal doctrine. Even more so, we must acknowledge the limitations of neurolaw as a field of research, especially in the context of voluntary action. This is because, notwithstanding the significant headway made within cognitive neuroscience in the past decades, the potential for scientific evidence to effect legal change and influence legal decisions is considerably limited.

Some of the most enthusiastic neurolaw scholars are confident that neuroscience will revolutionise the way we think about law and particularly criminal responsibility. For example, Sapolsky argues that ‘we are now a century or two into readily dealing with the alternative view of, “it is not him, it is his disease”’.<sup>7</sup> This claim relates to the potential for neuroscience to completely transform our understanding of agent causation and to attribute behaviour to brain mechanisms as opposed to a person’s free will. Moreover, it could be connected to the scientific rejection of the Cartesian separation between mind and body. ‘Mind-body dualism’, as it is also known as, is a theory that dates back to the seventeenth century, when Descartes posited that the mind and the body were two separate entities, each with its own mechanisms.<sup>8</sup> The historical separation between mental and physical phenomena, or body and soul, has and continues to have an impact on the criminal law, for instance with the distinction between *actus reus* and *mens rea*.<sup>9</sup> However, even within legal studies, there is no longer a dispute that the body, including the brain, is the sole generator of movement.<sup>10</sup> Where certain neurolaw scholars go further is in their conviction that neuroscience will prove that free will does not exist. In particular, looking into where cognition and movement is placed within brain structures will supposedly show that our actions are solely determined by the way in which our brain functions.<sup>11</sup> Therefore, just like the

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<sup>7</sup> Robert M Sapolsky, ‘The Frontal Cortex and the Criminal Justice System’ (2004) 359 *Philosophical Transactions: Biological Sciences* 1787, 1788.

<sup>8</sup> See for example Dov Fox and Alex Stein, ‘Dualism and Doctrine’ in Dennis Patterson and Michael S Pardo (eds), *Philosophical Foundations of Law and Neuroscience* (OUP 2016) 110; and Chapter 3.3.

<sup>9</sup> Keren Shapira-Ettinger, ‘The Conundrum of Mental States: Substantive Rules and Evidence Combined’ (2007) 28 *Cardozo Lrev* 2577, 2580.

<sup>10</sup> See for example Lisa Claydon, ‘Law, Neuroscience, and Criminal Culpability’ in Michael Freeman, *Law and Neuroscience: Current Legal Issues Volume 13* (OUP 2011) 143: ‘In twenty-first-century legal reasoning there is little to suggest that the criminal law is dualist in the Cartesian sense of the word.’

<sup>11</sup> Daniel A Martell, ‘Neuroscience and the Law: Philosophical Differences and Practical Constraints’ (2009) 27 *BehavSci&L* 123, 124.

physical world is determined, so would the brain be, to the point that our thoughts and actions would not be manifestations of our free will, but rather determined events.<sup>12</sup> According to this determinist perspective, in its simplest form, we do not behave as an uncaused cause, i.e. as the one thing that starts the chain of action. Rather, forces outside our awareness or control intervene at a given point between the activation of neurons and movement, removing our free will to act.<sup>13</sup>

This understanding of free will, or lack thereof, has implications on our perspective on criminal responsibility as well. For example, enthusiastic scholars like Greene and Cohen propose that cognitive neuroscience will provide ‘vivid new illustrations’ that will change our moral outlook and intuitions about responsibility.<sup>14</sup> One of the most common arguments is that the focus on retribution does not have legitimacy, as it would be ‘pointless’ to punish those who are simply ‘victims of neuronal circumstances’.<sup>15</sup> To impose penalties and inflict suffering proportionate to the harm committed by offenders would become unjustifiable if these people did not actually have free will. Because of this, such scholars would only agree to criminal punishment from a consequentialist standpoint, to reduce harm and thus prevent society from any further harm.<sup>16</sup>

Another area where neuro-enthusiasts are keen to praise the potential of neuroscience is in radically changing our perspective and understanding of ourselves and of human behaviour. For instance, in the context of the criminal law, scholars have put into question the continuing reliance on folk psychology, i.e. the emphasis on common sense explanations of behaviour, based on notions such as ‘belief’, ‘desire’, or ‘intention’.<sup>17</sup> Those in the camp of ‘eliminative materialism’ argue that our everyday understanding of psychological occurrences is ‘radically false’ and ‘fundamentally defective’, such that it will eventually be completely replaced by neuroscience.<sup>18</sup>

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<sup>12</sup> Nita A Farahany, ‘A Neurological Foundation for Freedom’ in Dennis Patterson and Michael S Pardo (eds), *Philosophical Foundations of Law and Neuroscience* (OUP 2016) 56.

<sup>13</sup> Owen Flanagan, *The Problem of the Soul: Two Visions of the Mind and How to Reconcile Them* (Basic Books 2002) 124. See also Chapter 3.4.c.

<sup>14</sup> Joshua Greene and Jonathan Cohen, ‘For the Law, Neuroscience Changes Nothing and Everything’ (2004) 359 *Philosophical Transactions: Biological Sciences* 1775, 1775.

<sup>15</sup> *Ibid* 1781.

<sup>16</sup> *Ibid* 1783.

<sup>17</sup> Michael Lamport Commons and Patrice Marie Miller, ‘Folk Psychology and Criminal Law: Why We Need to Replace Folk Psychology with Behavioral Science’ (2011) 39 *Jpsychiatry&L* 493, 494.

<sup>18</sup> Paul M Churchland, ‘Eliminative Materialism and the Propositional Attitudes’ (1981) 78 *The Journal of Philosophy* 67, 67.

The word ‘materialism’ is used to portray the mind as a ‘biological manifestation’ that occurs in the brain, whereas the ‘eliminative’ broadly refers to the desire to do away or remove the emphasis on folk psychological phenomena that are reliant on ‘mental states’.<sup>19</sup> One of the studies that is most commonly cited in support of determinism and eliminative materialism is that conducted by Libet and others in 1983, in which subjects were required to flex their fingers or wrists whenever they felt like doing so after watching a clock-like device complete a rotation, and subsequently report the time at which they decided to move.<sup>20</sup> The results revealed brain activity that preceded the conscious intention to move one’s body, lasting on average 350 milliseconds.<sup>21</sup> Libet’s study has often been put forward as evidence of the fact that we are not actually in conscious control of our movements, as it is brain processes that supposedly cause our actions.<sup>22</sup> Therefore, reducing actions to brain activity as opposed to mental states like intention or desire would allegedly prove the fiction that is folk psychology.

However, despite arguments made within the neurolaw community regarding the potential for neuroscience to revolutionise the law, it is argued that the evidence is nowhere near the point of conclusively proving that we are uncaused causers of our actions, nor is it transformative enough for us to shift away from the folk psychology that we have adopted to make sense of the world.<sup>23</sup>

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<sup>19</sup> Andrew E Lelling, ‘Eliminative Materialism, Neuroscience and the Criminal Law’ (1993) 141 *UpaLRev* 1471, 1476.

<sup>20</sup> Benjamin Libet and others, ‘Time of Conscious Intention to Act in Relation to Onset of Cerebral Activity (Readiness-Potential): The Unconscious Initiation of a Freely Voluntary Act’ (1983) 102 *Brain* 623, 625. The experiment sought to record the cerebral activity preceding a voluntary motor act, also known as ‘readiness potential’. Subjects were connected to a brain scanner and asked to flex their fingers and/or right-hand wrist at any point after watching the hour hand inside a clock-like device complete a rotation. However, it was highly subjective in that it relied on subjects to record the time when they made the decision to flex their fingers.

<sup>21</sup> *Ibid* 636. See also Michael Freeman, ‘Introduction: Law and the Brain’ in Michael Freeman, *Law and Neuroscience: Current Legal Issues Volume 13* (OUP 2011) 6.

<sup>22</sup> See for example John-Dylan Haynes, ‘Beyond Libet: Long-Term Prediction of Free Choices from Neuroimaging Signals’ in Walter Sinnott-Armstrong and Lynn Nadel (eds), *Conscious will and Responsibility: A Tribute to Benjamin Libet* (OUP 2011) 85, 92: ‘our and Libet’s findings do address one specific intuition regarding free will, that is the naïve folk-psychological intuition that at the time when we make a decision the outcome of this decision is free and not fully determined by brain activity.’; and Erman Misirlisoy and Patrick Haggard, ‘A Neuroscientific Account of the Human Will’ in Walter Sinnott-Armstrong (ed), *Moral Psychology (Vol. 4): Free Will and Moral Responsibility* (MIT Press 2014).

<sup>23</sup> The literature challenging the relevance of Libet-style experiments for the denial of free will is extensive. See for example Josef Seifert, ‘In Defense of Free Will: A Critique of Benjamin Libet’ (2011) 65 *The Review of Metaphysics* 377; and Daniel N Robinson, ‘Determinism: Did Libet Make the Case?’ (2012) 87 *Philosophy* 395. In fact, Libet himself acknowledged that his experiments do not exclude the existence of free will. See Benjamin Libet, ‘Do We Have Free Will?’ (1999) 6 *Journal of Consciousness Studies* 47.

Furthermore, in the context of the criminal law, whether we act as uncaused causers is not necessarily relevant, for irrespective of whether determinism is true or not, the criminal law already acknowledges the fact that we are not fully autonomous, independent, choosers.<sup>24</sup> We are all products of multiple factors such as upbringing, life experiences etc., which shape our existence and lead us to act in one way or another, but that does not mean the criminal law will be influenced by this when assigning blame for a certain action. Until science categorically disproves the assumptions that the law makes, and considering that, at least in theory, the criminal law remains grounded in the ideals of liberal democracy, respect must still be given to our autonomous actions, or lack thereof.<sup>25</sup> For something as significant as the criminal law to alter its framework on the basis of incomplete evidence, as well as ‘aggressive philosophising’, would be, as Lelling argues, ‘criminal’.<sup>26</sup> At the same time, this does not mean that neuroscience is irrelevant for the law, for evidence surrounding our ability to control or inhibit bodily movements, the processes at play in performing habitual movements, and so on, can nevertheless influence our understanding of voluntariness and thus contribute to developing a well-rounded legal test.

Perhaps those in the eliminative materialism camp have suffered from what Morse refers to as the ‘Brain Overclaim Syndrome’, a ‘condition’ that manifests itself in overconfidence in the present status of neuroscience and its potential to impact the law.<sup>27</sup> Situated at the other end of the spectrum from eliminative materialists, Morse is highly sceptical of neurolaw research and still supports the legal reliance of folk psychological requirements for responsibility. For instance, regardless of scientific evidence, he argues that the law ultimately seeks to regulate behaviour and as such, any type of actual behavioural evidence takes precedence over neuroscientific evidence, as it is more reflective of the law’s behavioural requirements.<sup>28</sup> Morse gives the example of fMRI, one of the neuroscientific tests that has been cited most often in neurolaw. In this case, he claims

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<sup>24</sup> For further detail, see Chapter 3.4.c. See also Susan Wolf, ‘Freedom Within Reason’ in James Stacey Taylor (ed), *Personal Autonomy: New Essays on Personal Autonomy and its Role in Contemporary Moral Philosophy* (CUP 2005) 260.

<sup>25</sup> For further detail see Chapter 3.4.c.

<sup>26</sup> Lelling (n 19) 1520.

<sup>27</sup> Stephen J Morse, ‘Brain Overclaim Redux’ (2013) 31 *Law & IneqJ* 509, 511.

<sup>28</sup> Morse (n 4) 26.

that relying on brain imaging to link brain regions that show activation to specific movement is not as helpful from a legal viewpoint, as it is based on correlations that are not ‘virtually perfect’, i.e. they cannot conclusively show that the legally relevant movement was caused by the particular damage.<sup>29</sup>

This criticism is best illustrated in cases in which people with seemingly ‘normal’ behaviour suddenly develop changes in personality and conduct. For instance, in the oft-cited case of Phineas Gage, a railroad worker who miraculously survived an iron rod going through his skull, but left him experiencing a severe behavioural change, such as using inappropriate language and acting irreverently.<sup>30</sup> A magnetic resonance imaging (MRI) reconstruction of his skull suggests that he suffered damage to his frontal lobes, an area associated with the self-regulation of movement, planning and decision making.<sup>31</sup> In another case, this time one where the change in behaviour was correlated with a criminal offence, an individual who suddenly developed paedophilic tendencies in his forties was convicted of sexually molesting his 12-year old stepdaughter.<sup>32</sup> Later on, during an MRI scan, it was discovered that the man had been suffering from a large orbitofrontal tumour, the removal of which saw him with no sexual desires towards children.<sup>33</sup> From a legal perspective, it has often been argued that such evidence should not be relied upon in court. This is concerned primarily with claims made by determinists, as well as those hopeful that neuroscience can create a causal link between damage to the brain and legally proscribed behaviour, the so-called ‘my brain made me do it’ claim.<sup>34</sup>

Indeed, following Morse’s criticism, despite the strong correlation that could be made between certain injuries to the brain and changes in movements, this would not have legal consequences

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<sup>29</sup> Ibid.

<sup>30</sup> Malcolm Macmillan, *An Odd Kind of Fame: Stories of Phineas Gage* (MIT Press 2002) 93.

<sup>31</sup> Jamie Ward, *The Student’s Guide to Cognitive Neuroscience* (3<sup>rd</sup> edn, Psychology Press 2015) 349.

<sup>32</sup> Jeffrey M Burns, Russell H Swerdlow, ‘Right Orbitofrontal Tumor With Pedophilia Symptom and Constructional Apraxia Sign (2003) 60 *Archives of Neurology* 437, 437.

<sup>33</sup> For more information on this case, see Uri Maoz and Gideon Yaffe, ‘What Does Recent Neuroscience Tell Us About Criminal Responsibility?’ (2016) 3 JLB 120. The changes in movement associated with damage to the frontal lobes will be discussed later in the chapter.

<sup>34</sup> This is primarily linked to the issue of free will. See for instance Daniel C Dennet, “‘My Brain Made Me Do It’ (When Neuroscientists Think They Can Do Philosophy’ (2011) Max Weber Lecture Series No 2011/01.

in practice. That is, criminal responsibility would still be attached to the person suffering from brain damage. The reason is that such correlation cannot be equated with legal causation, considering that there may be cases in which damage to the brain does not lead to criminal behaviour.<sup>35</sup> As Claydon argues, causation in law is different from causation in science.<sup>36</sup> However, cases such as that involving the brain tumour certainly show a correlation so strong that a causal connection can in all likelihood be made.<sup>37</sup> Therefore, such evidence could nevertheless provide insights into our ability to inhibit our movements. This is relevant both in terms of our objective to develop a voluntariness requirement but also generally, sparking questions regarding the way in which we develop legal standards and ascribe criminal responsibility. In fact, even Morse acknowledges that in cases where the brain abnormality is well defined, as is the case with epilepsy for instance, evidence of this kind can be probative as to whether the movement amounts to a criminal ‘act’.<sup>38</sup> Moreover, Morse argues that neuroscientific evidence could, in principle, shed light on certain legally significant capacities like control or rationality, which can be more ‘temporally stable’ in general, such that inferences can be made about the offender’s capacities and their effects on movement.<sup>39</sup> This acknowledgement of a role for neuroscience suggests that, even amongst sceptics, there is potential for such evidence to impact the criminal law.

The remainder of this chapter will build from the investigation pursued in the previous chapter in order to assess the suitability of the legal test focused on our ability to control bodily movements. Specifically, the chapter will undertake a review of the literature and extract relevant themes from empirical evidence surrounding the regulation and inhibition of bodily movements. The chapter will also explore studies surrounding the mechanisms involved in the execution of habitual movements and discuss whether such movements are consciously intended or not. In turn, the

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<sup>35</sup> Walter Glannon, ‘What Neuroscience Can (and Cannot) Tell Us about Criminal Responsibility’ in Michael Freeman, *Law and Neuroscience: Current Legal Issues Volume 13* (OUP 2011) 18.

<sup>36</sup> Claydon (n 10) 158.

<sup>37</sup> Glannon (n 35) 18.

<sup>38</sup> Morse (n 4) 24.

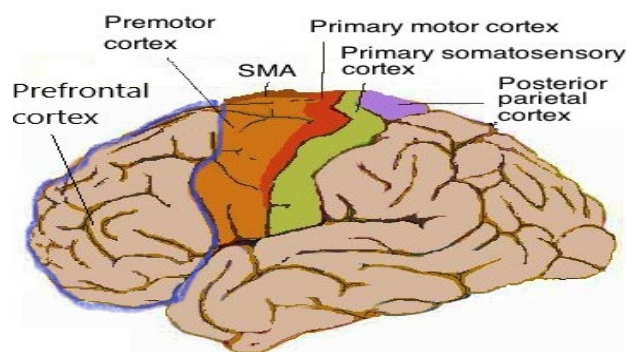
<sup>39</sup> Morse (n 27) 533. For Morse, the capacity for rationality is the fundamental criterion for responsibility. Such concept is a normative one, which ‘can take on various meanings according to differing moral and political judgments about how society should govern itself.’ See Stephen J Morse, ‘Rationality and Responsibility’ (2000) 74 *Southern California Law Review* 251, 254.

analysis will assess whether bodily movement is best understood neuroscientifically as conscious intentional acts, or whether the research is more closely aligned with a definition of sufficient control to move otherwise. In this context, the main research questions that the present chapter seeks to answer are: What are the neurological mechanisms involved in controlling bodily movements? How does the neuroscience behind inhibiting movement influence our legal understanding of voluntariness? Does neuroscientific evidence challenge a conceptualisation of voluntariness based on control?

## 2. Processes Underlying the Control of Bodily Movements

### a. Areas of the Brain Involved in Movement

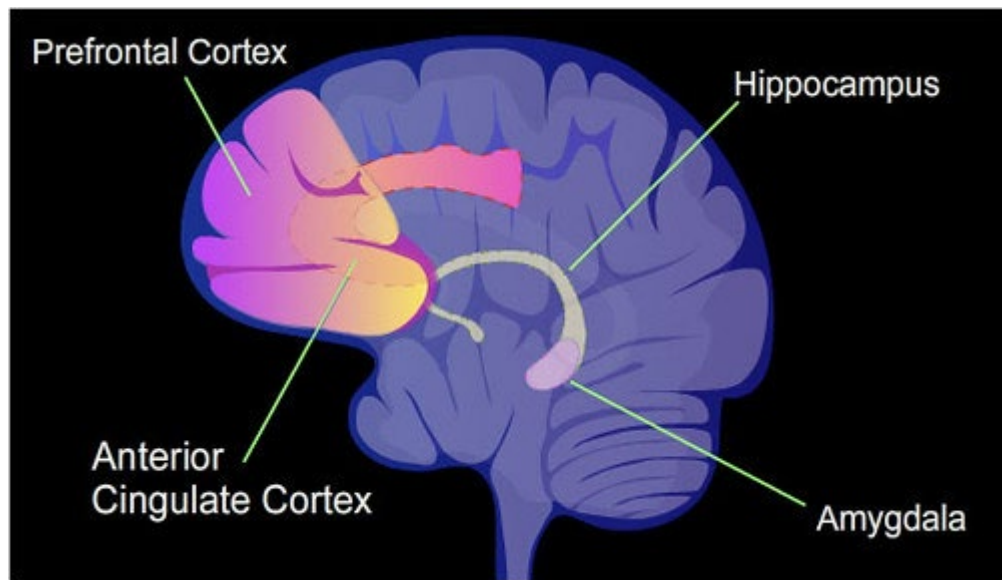
Prior to embarking on an analysis of the control model in its neuroscientific context, it is helpful to introduce relevant brain areas that will feature more prominently in the upcoming discussion, considering that most studies have tied these areas to inhibitory mechanisms, as well as mechanisms enabling the evaluation of alternative courses of action. Smaller constituent elements of the brain will also be addressed at a later stage, but it is important to first give a broad overview. Here, we are talking about the frontal lobes, with three primary divisions dealing with aspects relevant to acting, namely the primary motor cortex, the premotor cortex and the prefrontal cortex (Figure 1).<sup>40</sup>



**Figure 1.** Human Motor Cortex. The primary divisions dealing with aspects relevant to acting are the primary motor cortex, the premotor cortex and the prefrontal cortex. (Amended from Cortex sensorimoteur1.jpg: Pancrat derivative work: Iamozy, 2014) CC BY-SA 3.0.

<sup>40</sup> Carl R Olson and Carol L Colby, *Fundamental Neuroscience* (4<sup>th</sup> edn, Academic Press 2013) 978.

According to Olson and Colby, the more anterior these divisions of the frontal lobes are, the more abstract the aspects of bodily control that they contribute to are.<sup>41</sup> For example, the prefrontal cortex (PFC) has a key role in creating objectives and devising action plans required to achieve them, selecting the skills needed to implement such goals and applying those skills in the right order.<sup>42</sup> The PFC also allows individuals to make ‘harder’ choices, for instance in those cases where a quick reward is presented, but where the postponement of gratification will lead to an even bigger reward.<sup>43</sup> Moreover, it can be linked to the ability to adhere to social rules, as studies have shown that damage to this area can create a deficit in the attainment of social and moral norms.<sup>44</sup> For instance, the PFC has been associated with the suppression of impulsive movement, sending inhibitory signals into the region of the brain called amygdala, known for its heavy implication in aggressive behaviour (Figure 2).<sup>45</sup>



**Figure 2.** Illustration of Brain Regions. The prefrontal cortex plays a role in the suppression of impulsive movement, sending inhibitory signals into the amygdala. (National Institute of Mental Health, National Institutes of Health, 2015) CC PDM 1.0.

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<sup>41</sup> Ibid 979.

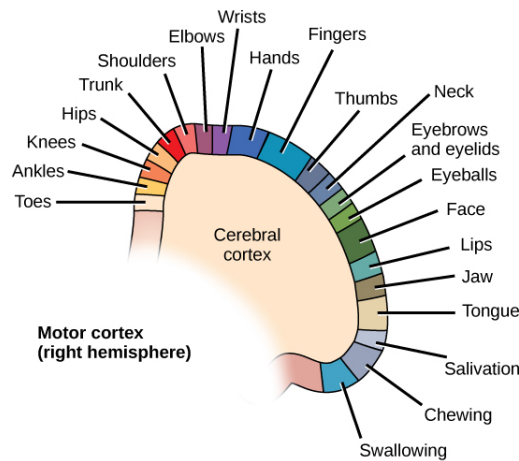
<sup>42</sup> Baars and Cage (n 1) 402.

<sup>43</sup> Sapolsky (n 7) 1790.

<sup>44</sup> Goodenough and Tucker (n 6) 78.

<sup>45</sup> Sapolsky (n 7) 1791.

The primary motor cortex (M1) is situated at the posterior side of the frontal lobes and plays a more specific function in terms of movement and action compared to the prefrontal cortex. Specifically, it has a fundamental role in the execution of bodily movements, being ‘somatotopically organized’.<sup>46</sup> That is, every area of the body is represented by different areas of the M1, with the extent of representation depending on the degree of specificity needed for movement control (Figure 3).<sup>47</sup> For example, despite the small surface taken by the face and the hands, these regions have a large representation in the M1. Olson and Colby highlight that in those parts of the M1 areas associated with the relevant body areas, neurons receive signals from muscles and then send the output back to those muscles through pathways in the brainstem and the spinal cord.<sup>48</sup>



**Figure 3.** The M1 contains specific areas dedicated to governing different parts of the body. (Figure 35 03 04, CNX OpenStax, 2016) CC BY 4.0

While the PFC is involved in the selection of behaviour and its associated goals and the M1 is significant for the execution of movements, the premotor cortex deals with the preparation of actions.<sup>49</sup> More specifically, the lateral areas of the premotor cortex are primarily concerned with external prompts, linking action with visual cues such as noises, lights etc., whereas the medial are, also known as the supplementary motor area (SMA)(Figure 1), is generally concerned with

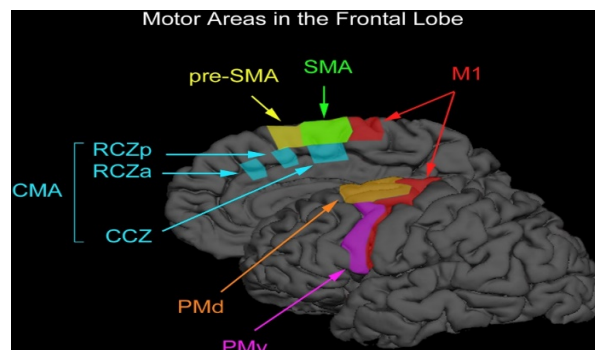
<sup>46</sup> Ward (n 31) 168.

<sup>47</sup> Ibid.

<sup>48</sup> Olson and Colby (n 40) 979.

<sup>49</sup> Ward (n 31) 173.

well-learned movements that do not rely as much on monitoring the environment.<sup>50</sup> It is this latter area of the premotor cortex that is more relevant here, as a number of studies suggest that prior to bodily movements, neurons are activated in the SMA.<sup>51</sup> Probably the most ‘famous’ one is that of Libet, relating to electrical impulses that predate action.<sup>52</sup> The study was taken by many as ‘evidence’ to suggest that free will is an illusion due to the neural mechanisms that precede our urge to move, but beyond conceptual implications, the study suggested that these mechanisms were situated in the SMA.<sup>53</sup> These findings have also been confirmed more recently, with studies replicating Libet’s study and noting similar activity in the SMA.<sup>54</sup> Equally relevant and important to mention is the pre-supplementary motor area (preSMA)(Figure 4), which has been often been correlated to both the timing of an action (the ‘when’) and the ‘free selection of responses’, i.e. the choice between alternatives (the ‘what’).<sup>55</sup>



**Figure 4.** Motor Areas in the Frontal Lobe. The SMA and pre-SMA have been linked to the initiation of action, but also the timing of the action and the free selection of responses. (Chouinard PA and Paus T, 2015) CC BY 3.0

<sup>50</sup> Ibid 171. See also Richard E Passingham, Sara L Bengtsson and Hakwan C Lau, ‘Medial Frontal Cortex: From Self-generated Action to Reflection on One’s Own Performance’ (2010) 14 Trends in Cognitive Sciences 16, 16.

<sup>51</sup> Itzhak Fried and others, ‘Volition and Action in the Human Brain: Processes, Pathologies, and Reasons’ (2017) 37 The Journal of Neuroscience 10842, 10843.

<sup>52</sup> See Libet and others (n 20); and Benjamin Libet, Elwood W Wright, Jr., and Curtis A Gleason, ‘Readiness-Potentials Preceding Unrestricted “Spontaneous” vs. Pre-Planned Voluntary Acts’ (1982) 54 Electroencephalography and Clinical Neurophysiology 322. See also Section 1.

<sup>53</sup> Libet and others (n 20) 636.

<sup>54</sup> See for example Itzhak Fried, Roy Mukamel and Gabriel Kreiman, ‘Internally Generated Preactivation of Single Neurons in Human Medial Frontal Cortex Predicts Volition’ (2011) 69 Neuron 548, 555. Here, the authors replicated the study, also observing ‘a preconscious event’ in the SMA prior to subjects’ perceived urge to move’, with a large proportion of neurons showing activation in the SMA.

<sup>55</sup> See for example Hakwan C Lau and others, ‘Willed Action and Attention to the Selection of Action’ 21 Neuroimage 1407, 1413; and Veronika A Mueller and others, ‘The Role of the preSMA and the Rostral Cingulate Zone in Internally Selected Actions’ 37 Neuroimage 1354, 1355.

Having introduced the most relevant areas of the brain involved in the control of bodily movements, the next and most important step is to review the model used to describe the voluntariness requirement in law, that of control, from a neuroscientific perspective. As mentioned earlier, the focus is on the ability to refrain from acting, i.e. inhibiting movement, as well as the ability to select between competing alternatives of action.

### **b. Go/No-Go/Stop**

When analysing voluntariness from a legal and philosophical perspective, it was argued that the voluntariness requirement is grounded in the capacity to control our bodily movements. That is, we should not be attributed with a movement if we did not have the ability to move otherwise. Because of this, it was provisionally concluded that the requirement should be described by reference to control, notwithstanding some conceptual uncertainty which, compared to other models such as conscious intention, was not as extensive.<sup>56</sup> As such, the purpose of this section is to address the evidence surrounding our control of physical movements, particularly to identify the basis of the control model in a neuroscientific context and to review the evidence as it pertains to failures of the relevant mechanism. The focus here will be on inhibitory mechanisms and the capacity to select between alternative actions, following on from the provisional model presented in the previous chapter. This emphasis on inhibitory processes is also present in scientific discussions on the nature of control. For example, they are often categorised as ‘a key marker of voluntary self-control’, being able to reflect the ability to move otherwise, in the sense that if a person is able to refrain from moving their bodies, they will also be able to move otherwise when they do engage in movement.<sup>57</sup> Similarly, Sumner and others categorise the availability of alternative possibilities of action as ‘the defining criterion for voluntary behaviour’, with

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<sup>56</sup> This related primarily to the degree of self-control needed to be categorised as voluntary and, more profoundly, whether we need an actual freedom to do otherwise or whether it is enough to have an impression of freedom.

<sup>57</sup> Patrick Haggard, ‘The Neurocognitive Bases of Human Volition’ (2019) 70 *Annual Review of Psychology* 9, 10.

inhibitory mechanisms central in suppressing those potential movements that are not wanted or necessary.<sup>58</sup> Even Libet and others had to acknowledge within their famous study that there is an ability to ‘veto’ movement in the time between becoming aware of the desire to act and performing that act.<sup>59</sup> Therefore, any discussion surrounding our control mechanisms must invariably start with one on our ability to refrain from moving. Here, the focus should be on the inhibition of movement, i.e. on the ‘intervention mechanism that “applies the brakes” and actively overrides impending movement’.<sup>60</sup>

Before we engage in a deeper discussion on motor inhibition, it is worth noting that studies relating to inhibitory mechanisms may not be as conclusive as those involved in initiating movement. For example, Filevich and others draw attention to a number of methodological issues encountered by studies on inhibitory processes.<sup>61</sup> First, some of these studies rely on mechanisms that show no behavioural output, therefore making correlations between internal processes and an absence of movement less conclusive.<sup>62</sup> Second, where the inhibition is internally generated, e.g. resisting the temptation to eat chocolate etc., it is hard to make an accurate measurement without the ability to manipulate the external cue, as in the case with externally triggered ones (e.g. stopping at a red light etc.).<sup>63</sup> Third, the absence of behavioural output also makes it hard to distinguish cases in which the agent would not have moved at all with those in which the movement was prepared but inhibited at the last minute.<sup>64</sup> However, despite these methodological issues, such studies are central to evaluating the claim that control is key to voluntariness. This is particularly since courts place an emphasis on complete loss of control as evidence of

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<sup>58</sup> Petroc Sumner and others, ‘Human Medial Frontal Cortex Mediates Unconscious Inhibition of Voluntary Action’ (2007) 54 *Neuron* 697, 697.

<sup>59</sup> Libet (n 23) 52.

<sup>60</sup> Jim Parkinson and Patrick Haggard, ‘Subliminal Priming of Intentional Inhibition’ (2014) 130 *Cognition* 255, 255.

<sup>61</sup> Elisa Filevich, Simone Kühn, Patrick Haggard, ‘Intentional Inhibition in Human Action: The Power of ‘No’ (2012) 36 *Neuroscience and Behavioural Reviews* 1107, 1108.

<sup>62</sup> *ibid.*

<sup>63</sup> *ibid* 1109.

<sup>64</sup> *ibid.* However, it may still be possible to differentiate between ‘voluntary motor inhibition’ and the ‘absence of positive voluntary motor commands’, each with their own specific neural function. See Arko Ghosh, John Rothwell and Patrick Haggard, ‘Using Voluntary Motor Commands to Inhibit Involuntary Arm Movements’ (2014) 281 *Proceedings of the Royal Society* 20141139, 1.

involuntariness, but it is not entirely clear whether this standard is justified, for it is possible that an agent loses the capacity to move otherwise even with some inhibitory control remaining.<sup>65</sup> In testing this assumption, it is argued that Go/No-Go and ‘stop signal’ neuroscientific studies will prove most informative.

Most studies in the area of inhibition relate to ‘action restraint’ (inhibiting an action before it is started) and ‘action cancellation’ (inhibiting an action during its execution).<sup>66</sup> Specifically, Go/No-Go tasks evaluate the ability or inability to refrain from responding to a particular cue, by looking at the percentage of subjects initiating movement following the cue, whether there any false alarms etc.<sup>67</sup> Stop-signal tasks are more concerned with the ability to inhibit a motor response during its execution, by looking at the reaction time and how long it takes for a subject to inhibit movement.<sup>68</sup> As Eagle and others highlight, most studies in this area have not differed materially, with much of the literature using the Go/No-Go/Stop terminology interchangeably, as both types of research ultimately rely on some version of the ‘Go’ response.<sup>69</sup> Such studies usually involve subjects (not) pressing a key, lever or touch-screen as a response to a visual stimulus in Go/No-Go, or to inhibit the performance of the ‘Go’ response period in the case of a visual or auditory ‘stop’ signal.<sup>70</sup> The differences lie in the test measuring slightly different hypotheses, as mentioned above, as well as there being different types of brain activation observed.<sup>71</sup> At the same time, rather than focusing on the specifics of these tests, it would be more helpful for our purposes to categorise these studies as simply researching the restraint and cancellation of the movement.

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<sup>65</sup> For further details see Chapter 2.

<sup>66</sup> Russell Schachar and others, ‘Restraint and Cancellation: Multiple Inhibition Deficits in Attention Deficit Hyperactivity Disorder (2007) 35 J Abnorm Child Psychol 229, 229.

<sup>67</sup> Dawn M Eagle, Andrea Bari, Trevor W Robbins, ‘The Neuropsychopharmacology of Action Inhibition: Cross-Species Translation of the Stop-Signal and Go/No-Go Tasks’ (2008) 199 Pharmacology 439, 440.

<sup>68</sup> *ibid.*

<sup>69</sup> *ibid.*

<sup>70</sup> *ibid.*

<sup>71</sup> For instance, in the case of Go/No-Go, it has been observed that the left hemisphere of the brain is activated to a greater extent: Katya Rubia, Tamara Russell, Stephan Overmeyer, Michael J Brammer, Edward T Bullmore, Tonmoy Sharma, Andrew Simmons, Steve C R Williams, Vincent Giampietro, Chris M Andrew, and Eric Taylor, ‘Mapping Motor Inhibition: Conjunctive Brain Activations across Different Versions of Go/No-Go and Stop Tasks’ (2001) 13 NeuroImage 250, 254, whereas in Stop-signal, the right one shows higher activation: Adam R Aron and Russell A Poldrack, ‘The Cognitive Neuroscience of Response Inhibition: Relevance for Genetic Research in Attention-Deficit/Hyperactivity Disorder’ (2005) 57 Society of Biological Psychiatry 1285, 1287.

Ultimately, what interests us is to explore the control model from a neuroscientific perspective and both types of studies are relevant in this respect. Moreover, focusing on these two aspects of motor inhibition is relevant from a legal perspective, as it replicates those scenarios that most interest us. In the case of refraining from acting, it is important that the agent has the capacity to abstain from performing a movement that the law may want to describe as an offence. Where omissions are concerned, it is equally important for agents to be able to refrain from moving. Similarly, where cancellation of movement is concerned, the agent must have the ability to alter their bodily movements, for instance in the course of performing a movement that may cause a proscribed circumstance or result, as well as in the absence of legally required movement (e.g. intervening to save someone's life).

The focus on the ability to select between alternative courses of action (e.g. pressing one of different keys, levers etc.), as well as to refrain from acting (e.g. withholding the pressing of the key, cancelling the response to the instruction given to the subject etc.) make Go/No-Go/Stop studies highly relevant in the context of our legal analysis. Analysing the way in which this mechanism functions would not only expand our knowledge of control as a marker of voluntariness, but also raise pertinent questions regarding the impact or potential for such evidence to impact legal decisions, for instance in shifting the focus away from a 'complete' loss of control as a measure of involuntariness. However, to do so, it is argued that studies on the Go/No-Go/Stop mechanism would be even more informative when analysing failures in said mechanisms, for example in cases of neurodevelopmental conditions or attention deficit disorders. As Filevich and others argue, failure of mechanisms serve to provide 'a valuable existence proof for specific cognitive functions'.<sup>72</sup> This is despite the limitations identified in the introduction to the chapter, relating primarily to correlations not being as convincing as direct measurements, both in the legal and neuroscientific context.

It should be noted at this stage that, while informative for the criminal law more generally, we are not looking for evidence on every aspect that may relate to self-control, such as understanding

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<sup>72</sup> Filevich, Kühn, and Haggard (n 61) 1110.

and adhering to norms, engaging in long-term goals etc. This is because the voluntariness requirement should be framed in terms of the ability to *move* one's body otherwise, rather than simply to *behave* otherwise.<sup>73</sup> In other words, the target of the requirement is bodily movements, rather than the consequences or circumstances of those movements. It is only once an agent has been attributed with a particular movement, i.e. has been deemed voluntary, that the law then moves on to make judgments regarding the consequences or significance of that behaviour; for instance whether the requisite *mens rea* was present or whether a defence can be invoked. Because of this, any discussion on control as it relates to the voluntariness requirement should be limited to a discussion on the ability to control bodily movements, as opposed to control consequences. For example, we are not interested as much in evidence more relevant for the application of partial defences such as diminished responsibility or loss of control, as these come into play once voluntariness has been established, together with the requisite *actus reus* and *mens rea*. These defences only apply once the law has already established that the defendant killed a person, but they operate to reduce liability from a charge of murder to one of manslaughter when self-control was not present, due to a medical condition or provocation for example. In addition, they speak more to the ability to control consequences, i.e. death, as opposed to control bodily movements. Naturally, the loss of control in some of these cases can be compared with some involuntary ones, for instance in the case of sudden impulses to act, which could invariably lead to uncontrollable bodily movements. However, it is important to note that our focus is on physical movement as opposed to wider action plans, adherence to norms, and so on.

Looking at action restraint and cancellation studies in deficient mechanisms, research conducted with children suffering from Attention Deficit Hyperactivity Disorder (ADHD) show clear deficits in the ability to restrain or cancel movement. For example, Schachar and others conducted a study with children undergoing a 'Go' and 'Stop' task, looking at both action restraint and cancellation.<sup>74</sup> In the 'Go' task, participants were asked to respond to seeing the letters X or O by

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<sup>73</sup> For further detail, see Chapter 3.2.

<sup>74</sup> Schachar and others (n 66) 232.

pressing either one of two keys on a response box as quickly as possible, each key representing one letter.<sup>75</sup> In a quarter of the cases, the participants were also presented with an auditory signal that instructed them to withhold the response to press the key (the ‘Stop’ task), the timing of the stop signal depending on the type of inhibition measured.<sup>76</sup> Specifically, in action restraint, the signal occurred concurrently with the ‘Go’ one, whereas in cancellation, the signal appeared 250 ms later.<sup>77</sup> Compared to control participants, i.e. subjects who did not have ADHD, the authors observed clear deficits in both restraint and cancellation tasks, with lower accuracy and longer reaction time in pressing the button on the ‘Go’ task response, as well as longer time taken to inhibit the task in both restraint and cancellation.<sup>78</sup> In contrast, control subjects showed faster reaction times, this being correlated with a more efficient motor inhibition.<sup>79</sup> Similar tasks with subjects suffering from ADHD have found delays in response and lower accuracy levels,<sup>80</sup> as well as increased number of errors when the ADHD manifested itself in conjunction with other disorders.<sup>81</sup>

Notwithstanding the fact that these studies suggests that there is a standalone control mechanism that is impaired by ADHD, there are also conceptual issues that they raise. If we make an analogy between the instructions given in the above studies and those given by the law to society, failures or impairments of the mechanism by which agents can inhibit their movements do lead to pertinent questions regarding the expectations that the law has from individuals. Is it fair to continue to categorise as involuntary only movements in which the loss of control is ‘complete’? Should courts recognise that people with impairments to control mechanisms may not always act

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<sup>75</sup> *ibid*

<sup>76</sup> *ibid.*

<sup>77</sup> *ibid.*

<sup>78</sup> *ibid* 233.

<sup>79</sup> *ibid.*

<sup>80</sup> See for example Aron and Poldrack (n 71); and Nanda NJ Rommelse and others, ‘Are Motor Inhibition and Cognitive Flexibility Dead Ends in ADHS?’ (2007) 35 *J Abnorm Child Psychol* 957.

<sup>81</sup> In a Go/No-Go task involving children suffering from ADHD and developmental coordination disorder, which manifests itself in considerable impairments in planning and motor coordination, it was observed that only those with co-occurring ADHD and DCD made significantly more errors than control subjects when performing the Go/No-Go task. This was occurring particularly with children performing the action despite the No-Go signal. See Siobhan Thornton and others, ‘Functional Brain Correlates of Motor Response Inhibition in Children with Developmental Coordination Disorder and Attention Deficit/Hyperactivity Disorder’ (2018) 59 *Human Movement Science* 134, 138.

freely, despite not losing control completely? Naturally, the discussion above does not suggest that anyone suffering ADHD moves involuntarily. However, it does highlight the need for a flexible standard of voluntariness that acknowledges the potential for certain impairments to affect one's ability to move otherwise.

At the same time, it is accepted that certain limitations surrounding the application of ADHD studies to the legal analysis should be acknowledged. First, the conditions in which these studies are carried out do not find a perfect reflection in the law, so the analogy is not perfect by any means. For instance, the instructions that the law gives are more sweeping and are ingrained in us throughout the course of our lives, as opposed to the instruction to immediately move/not move/stop that is given in the neuroscience studies. Second, the studies themselves suffer from limitations. For instance, research on inhibitory processes has often been criticised for relying on results that could be attributed to factors other than deficient mechanisms, such as poor attention or memory issues.<sup>82</sup> Indeed, some studies have attempted to identify a clear deficit of motor inhibition. For instance, Keute and others conducted a study involving children with ADHD who were required to indicate the direction of target arrows (either left or right) shown to them by pressing the left 'control' key on a computer keyboard with their left index finger and the 'enter' key with the right index finger.<sup>83</sup> However, immediately prior to these tasks taking place, subjects were 'subliminally primed', i.e. they were presented with an arrow pointing in the correct or opposite direction to the one in the trial.<sup>84</sup> What the authors observed suggested the existence of a mechanism whereby movements were automatically inhibited, without awareness of doing so, in the effort to 'suppress premature motor responses' to information that is 'irrelevant or mere noise' or that is overtaken in significance by new information.<sup>85</sup> Compared to control subjects,

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<sup>82</sup> The very name ADHD links the disorder to an attentional issue, and a number of studies looking at the relationship between the disorder and inhibitory processes have highlighted that delays or inaccuracies in performing the required tasks could be attributed to factors not directly related to motor inhibition. See for example, Marius Keute and others, 'Intact Automatic Motor Inhibition in Attention Deficit Hyperactivity Disorder' (2018) 109 *Cortex* 215, 216; and F Xavier Castellanos and Rosemary Tannock, 'Neuroscience of Attention Deficit/Hyperactivity Disorder: The Search for Endophenotypes' (2002) 3 *Nature Reviews Neuroscience* 607, 623

<sup>83</sup> Keute and others (n 82) 217.

<sup>84</sup> *ibid.*

<sup>85</sup> *ibid* 223.

the children with ADHD did not perform differently, suggesting that there is an automatic mechanism involved in the suppression of impulsive behaviour.<sup>86</sup>

The study above highlights that it is not as straightforward to extricate a motor inhibition mechanism without acknowledging the impact of other factors such as attention or memory.<sup>87</sup> For instance, the Go/No-Go/Stop paradigm in the context of ADHD allows for inattention to potentially impact the task on a larger scale, as it may affect subjects' ability to inhibit movement (in No-Go or Stop). In contrast, the study conducted by Keute and others would minimise the effect of inattention on the task as it only requires the subjects to perform the movement of the fingers in accordance with the visual stimuli. However, this study also relies on the subjects' attention in following the stimulus, which is the arrow on the screen. This conceptual difficulty illustrates a gap in evidence relevant to our legal inquiry, due to the fact that it does not pinpoint the threshold at which subjects would lose the ability to move otherwise. Regardless of the absence of irrefutable proof, these studies do challenge the reliance on a total inability to control movement which, as discussed above, at least questions the legal standard. This is because courts place an emphasis on a total inability to control oneself when the threshold for loss of inhibitory control might in fact be lower than that.<sup>88</sup> For this reason, perhaps it would be more useful to explore other types of impairments to inhibitory mechanisms, such as those that we would intuitively categorise as lacking total control, as is the case with tics, reflexes, etc. These impairments are also potentially more revealing as they rely on more tangible evidence, such as that on damage to neural pathways and relevant brain areas, which, to a larger extent, could be more persuasive than behavioural measures, as is the case with ADHD and other similar disorders.

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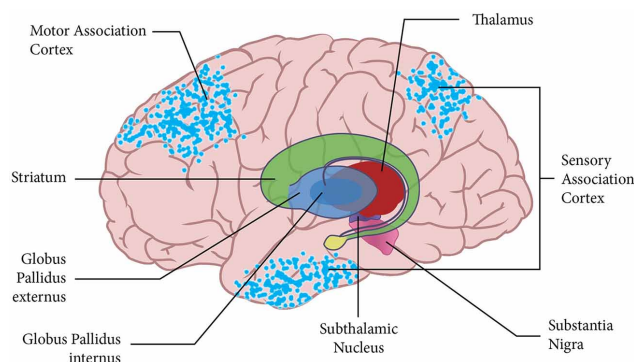
<sup>86</sup> *ibid.*

<sup>87</sup> It should be noted that it is beyond the parameters of the present thesis to discuss the way in which ADHD manifests itself, as well as the cognitive mechanisms impaired by the disorder.

<sup>88</sup> See Chapters 2.9 and 3.4.c.

### c. Further Evidence of Impairments to the Control Mechanism

Before embarking on a discussion on the legal impact of evidence surrounding damage to inhibitory mechanisms and the total loss of control, it is important to briefly mention a number of relevant brain areas other than the frontal lobes, which were discussed at the beginning of this section. Furthermore, it is important to briefly address connections made within neural circuitry which are essential in increasing or decreasing activity in the cortex and hence promoting or inhibiting movement.<sup>89</sup> These regions and pathways are essential constituent elements in the preparation and execution of movements and, naturally, disorders manifesting themselves in impairments to the control mechanism will generally involve damage or deterioration of these elements. In terms of brain regions, the relevant ones are basal ganglia and the thalamus. The former represents a collection of brain nuclei that are found in each hemisphere and represent ‘regions of subcortical gray matter involved in aspects of motor control and skill learning’ (Figure 5).<sup>90</sup> The thalamus acts as ‘the great traffic hubs of the brain’.<sup>91</sup> Together with the M1, the basal ganglia and thalamus are essential for movement, and their functional inter-connectivity is complex, involving reciprocal inhibitory and excitatory projections.<sup>92</sup> An inhibitory connection means that there is a greater activity in the originating brain structure than in the receiving one, the vice versa applying in the case of excitatory pathways.<sup>93</sup>



**Figure 5.** Cortical Surface with an Overlay of the Basal Ganglia and Thalamus. The main components of the basal ganglia are the striatum, the globus pallidus external and the globus

<sup>89</sup> Baars and Cage (n 1) 127.

<sup>90</sup> Ward (n 31) 26.

<sup>91</sup> Baars and Cage (n 1) 135.

<sup>92</sup> Ward (n 31) 26-27.

<sup>93</sup> *ibid* 190.

pallidus internus, the ventral pallidum, the substantia nigra, and the subthalamic nucleus (Colder B, 2015) CC BY 4.0.

For present purposes, neural pathways are important particularly in the case of the loops connecting the thalamus and basal ganglia, which form two corresponding routes and help directly increase and indirectly decrease activity in the cortex, i.e. they promote and inhibit movement respectively.<sup>94</sup> In fact, the indirect pathway is always activated, allowing us to keep still when resting.<sup>95</sup> The importance of these pathways is mostly showcased in the case of people suffering from Parkinson's disease. Here, patients encounter lower levels of dopamine, a neurotransmitter in the substantia nigra, a large cluster of neurons located in the midsection of the brain, connecting with and projecting to the basal ganglia.<sup>96</sup> Dopamine is important as it can both activate and inactivate pathways, but in those suffering from Parkinson's, there is a dramatic deceleration of dopamine, leaving people with a tremor, the slowing of movement (bradykinesia), difficulty initiating movement (akinesia), muscular rigidity, and so on.<sup>97</sup>

The important role of the basal ganglia and related structures in the initiation and/or control of movement can also be seen by looking at other clinical conditions. These conditions are marked by hyperkinetic symptoms, i.e. they lead to an excess of spontaneous movement, as opposed to Parkinson's, which is a hypokinetic disease characterised by a shortage of spontaneous movement.<sup>98</sup> These symptoms are perhaps more relevant here, as they usually manifest themselves in bodily movements typical of a claim of involuntariness in criminal law, such as mainly repetitive and excessive movements like motor tics. Particularly with children suffering from Tourette's, the PFC shows greater activation than in non-affected children, potentially as a result of compensation to control the tics.<sup>99</sup> That is, 'compensatory changes in brain structure and

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<sup>94</sup> *ibid.* See also Mahlon R DeLong, 'Primate Models of Movement Disorders of Basal Ganglia Origin' (1990) 13 *Trends in Neuroscience* 281, 281.

<sup>95</sup> Ward (n 31) 190.

<sup>96</sup> *ibid.*

<sup>97</sup> DeLong (n 94) 281.

<sup>98</sup> Ward (n 31) 191.

<sup>99</sup> Stephen R Jackson and others, 'Compensatory Neural Reorganisation in Tourette Syndrome' 21 *Current Biology* 580, 584.

function' do occur to take control over the symptoms.<sup>100</sup> In addition, traditional models of movement disorders correlate the severity of the tics with 'increased cortical excitability', particularly in basal ganglia regions and the direct pathway.<sup>101</sup> For instance, Smeets and others argue that abnormal basal ganglia output patterns are the primary explanation for the inability to inhibit bodily movements.<sup>102</sup>

The correlation of the abovementioned brain areas and neural circuitry with motor control or, more specifically, the failure of the mechanisms underlying motor control, shows that are specific cognitive processes dedicated to the regulation of bodily movements. For example, conditions like Parkinson's or Tourette's reveal the barriers to exercising motor control when the neural pathways between the M1, basal ganglia and thalamus are affected. Going beyond simply arguing that the PFC, SMA or other subcortical regions are involved in this inhibitory process however, the studies are arguably more informative in the sense that they present more convincing evidence of the impact of impairments to our control mechanism. Specifically, they support the existence of a cognitive process at play in the control of bodily movements, shown not only through behavioural output, but also brain imaging. This is not to say that imaging evidence is more important, but it is perhaps more persuasive from a legal viewpoint, as courts have already made use of them in certain, albeit limited, circumstances.<sup>103</sup>

At the same time, relying on this type of evidence has its obvious limitations and can raise potentially more questions than answers. The most evident challenge relates to the use of brain imaging, for such information would not necessarily speak to the capacity of the defendant at the time of the alleged movement. Any evidence regarding the overall structure of a person's brain

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<sup>100</sup> *ibid.*

<sup>101</sup> Ryan J Felling and Harvey S Singer, 'Neurobiology of Tourette Syndrome: Current Status and Need for Further Investigation' (2011) 31 *The Journal of Neuroscience* 12387, 12388. See also Ward (n 31) 192.

<sup>102</sup> Anouk Y J M Smeets and others, 'The Role of the Basal Ganglia in Tourette Syndrome' in *New insights in Deep Brain Stimulation for Tourette Syndrome* (Maastricht University Press 2018) 31.

<sup>103</sup> However, it is worth noting that these circumstances have related mostly in sentencing assessments rather than establishing criminal responsibility. Most often, they have been used in the United States to reduce severe punishments, for instance from the capital death sentence to life imprisonment. See for example Yu Du, 'The Application of Neuroscience Evidence on Court Sentencing Decisions: Suggesting a Guideline for Neuro-Evidence' (2020) 18 *Seattle Journal for Social Justice* 493, 500-501.

can only highlight potential impediments for agents to move according to standard expectations,<sup>104</sup> tested against the movements of a ‘reasonable person’.<sup>105</sup> This leads us then to further limitations. Notwithstanding that the ‘reasonable person’ standard has been a consistent topic of debate among legal scholars,<sup>106</sup> even if one had a clear understanding of the type of movement expected from people, we would still be faced with an empirical conundrum. How would one establish that a person’s brain meets that standard? That is, how many ‘reasonable’ people’s brains would we have to look at first in order to establish a reliable baseline? Most importantly for our purposes, it still leaves a gap in evidence regarding the point at which an individual can no longer move otherwise, since movements such as tics and reflexes can easily be described as involuntary without much controversy. What is important to note here though is that the above evidence, supports the existence of a clear category of individuals with impairments to their control mechanisms. From a legal perspective, this confirms the assumptions made by legal scholars that some people should not be deemed voluntary by the criminal law due to their inability to move otherwise.

### **3. Habitual Movements and Inhibition of Movement**

One area of research that could be more persuasive in terms of the relevance of neuroscientific research in the present context is that of habitual movements. This type of research is important to address not just to develop the legal standard of voluntariness or influence legal decisions. It can also be used to test the claim that control is an appropriate concept to describe voluntariness, as opposed to others such as consciousness or intention, which have been used by courts and

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<sup>104</sup> This is a tentative argument for, as mentioned in the Introduction, correlation does not amount to causation.

<sup>105</sup> In law, the ‘reasonable person’ standard is a legal fiction mostly employed to assess the behaviour of the defendant against what a reasonable person would have done in those circumstances. It is applied in a wide array of claims, both civil and criminal, but mostly in cases of negligence.

<sup>106</sup> The main reason is that the standard ultimately requires extra-legal aspects to be incorporated in the assessment, especially in terms of what society deems as a reasonable person at any given time. Because of this, Gardner has categorised the standard as ‘a creative tension at the heart of legal life’. See John Gardner, ‘The Many Faces of the Reasonable Person’ in John Gardner, *Torts and Other Wrongs* (OUP 2019) 273.

scholars alike. For instance, Chapter 2 of the present thesis has highlighted that courts refer to both consciousness and control to rationalising voluntariness, but without actually explaining what is about these concepts that make them relevant. Because of this, it is worth briefly exploring the concepts from a neuroscientific perspective, especially since they have been linked to voluntary movement across disciplines, before engaging with the aspect of habitual movements more specifically.

At this stage, it should be mentioned that, despite various conceptual debates within neuroscience as to the meaning of consciousness, we are here taking that to mean awareness, even though it is acknowledged that consciousness cannot be restricted to one single state or level.<sup>107</sup> However, from a legal viewpoint, this analogy is sufficient to discuss existing evidence on the voluntariness of movement. In addition, the discussion on awareness of bodily movements ties into one on intentional movement, for the concepts of consciousness and intention have often been discussed concurrently in the context of voluntariness. For example, Haggard agrees that to define ‘volition’<sup>108</sup> is notoriously difficult, but he argues that central characteristics would be the outcome or goal-directed nature of the movement, together with awareness of one’s intentions.<sup>109</sup> In other words, the greater the degree of awareness of one’s reasons for acting, the ‘stronger’ the ‘volition’ is.<sup>110</sup>

Looking specifically at consciousness and intention, it should be noted that the former has been one of the most difficult and elusive areas of neuroscientific investigation. This is particularly the case in terms of the connection between ‘the subjective qualities of any sensory experience’,<sup>111</sup> or *qualia*, as these are called in philosophy, and the brain. Many philosophers and scientists alike

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<sup>107</sup> Benjamin Wallace and Leslie E Fisher, *Consciousness and Behaviour* (3<sup>rd</sup> edn, Allyn and Bacon 1991) 13.

<sup>108</sup> I would contrast the notion of volition as described in the previous chapter with what Haggard here describes as features of voluntariness instead.

<sup>109</sup> Haggard (n 57) 11.

<sup>110</sup> *ibid* 13. Haggard is one of the researchers who has focused most on the neurological bases of voluntary actions, one of his main experimental paradigms for exploring intentional action being that of ‘intentional binding’, i.e. a putative measure of the sense of agency; see also Manos Tsakiris and Patrick Haggard, ‘Awareness of Somatic Events Associated with a Voluntary Action’ (2003) 149 *Experimental Brain Research* 439, 440.

<sup>111</sup> Susan Blackmore, *Conversations on Consciousness* (OUP 2006) 266.

have tried to locate consciousness within a specific area of the brain, with one of the earliest endeavours seen with Descartes in the seventeenth century, who attributed it to the pineal gland, situated at the base of the brain.<sup>112</sup> However, consciousness cannot be reduced to one specific area in the brain, as there are a variety of functions that are performed whilst conscious, which range from visual and auditory, to emotional, cognitive, and so on, each with an unconscious element to it.<sup>113</sup> As such, neuroscientific research has focused on the ‘neural correlates of consciousness’, i.e. the minimum neuronal conditions necessary for any one conscious sensation.<sup>114</sup>

More successful and, most certainly, more relevant in the present context have been studies looking at sensations experienced by subjects exposed to cortical stimulation. For instance, some experiments have followed Libet’s formula, looking at the relationship between the generation of action and its associated awareness of intention, in the context of direct cortical stimulation prior to surgery for epilepsy. Here, the preSMA was found to play an important role, as direct stimulation within this region was accompanied by the subjects’ awareness of an ‘immediate intention’ to move, that is, a short-term awareness of impending action, which preceded bodily movement.<sup>115</sup> Other studies have looked at ‘prospective intention’ which, as the name suggests, relates to future-oriented cognition and action planning, in contrast to the ‘immediate’ type of intention.<sup>116</sup> Here, the ventromedial prefrontal cortex (VMPFC), i.e. the lower central part of the PFC, which has an essential role in our ability to simulate what it could feel like to experience an event in the future, was found to be relevant.<sup>117</sup> This is consistent with other studies that have focused on the VMPFC, which showed that damage to the region impairs the capacity to ‘travel

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<sup>112</sup> Wallace and Fisher (n 107) 30.

<sup>113</sup> Baars and Cage (n 1) 242.

<sup>114</sup> *ibid* 241.

<sup>115</sup> Elisabeth Pacherie and Patrick Haggard, ‘What Are Intentions?’ in Walter Sinnott-Armstrong and Lynn Nadel (eds), *Conscious Will and Responsibility* (OUP 2011) 72. Relevant here are also the cingulate motor areas (CMA), situated in the medial (midline) parts of the cortex. According to Pacherie and Haggard, these areas have been linked to compulsive or automatic actions, and their direct stimulation has been associated with compulsive behaviour such as smoking or eating. That is, once the areas were no longer stimulated, subjects were able to inhibit their bodily movements.

<sup>116</sup> *ibid* 78.

<sup>117</sup> Roland G Benoit, Karl K Szpunar and Daniel L Schacter, ‘Ventromedial Prefrontal Cortex Supports Affective Future Simulation by Integrating Distributed Knowledge’ (2014) 111 *Proceedings of the National Academy of Sciences* 16550, 16553. Specifically, the region contributes to the integration of knowledge structures, i.e. associations that we make with aspects such as places we have been to, people that we have met, and so on, in order to construct predictions of how the eventual behaviour will occur.

in time', due to the inability of this area to access the memory and 'manipulate it imaginatively in the service of goal directed behaviour'.<sup>118</sup>

For present purposes, the 'immediate' or 'urge to move' intention is most relevant, as it relates to specific motor responses that occur shortly before the onset of bodily movements.<sup>119</sup> This is also because intention in the context of voluntariness should be taken as the intention to move one's body, as opposed to intention to achieve a certain goal.<sup>120</sup> Indeed, prospective intention does not necessarily have to relate to wider action plans.<sup>121</sup> However, it is the immediacy of movement that is more relevant here, considering that the focus of the voluntariness requirement is on bodily movements. Most importantly, having empirical evidence regarding the separation between these types of intentions could potentially counteract the criticism related to the conceptual confusion of using intention to describe voluntariness. It will be remembered that one of the primary reasons behind not supporting this model related to the semantic confusion it would bring into the law.<sup>122</sup> This is because the intention to achieve a certain goal already plays a central part in the criminal law, namely in *mens rea* assessments. Therefore, if we started to use intention for both a finding of voluntariness and one of *mens rea*, this could create confusion and lead to practical difficulties. However, if these types of intention were shown to be represented by separate neural processes, that could justify a corresponding separation in law.

At the same time, while a focus on conscious intention in law does find empirical support, it is argued that control is still an essential and, one would argue, constituent element of movement. Specifically, there are various brain processes involved in the planning of movement, for instance in terms of simulating future events, which helps us deliberate between potential actions and ultimately choose one over the other.<sup>123</sup> To some extent, it may even serve to fill in some gaps

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<sup>118</sup> Philip Gerrans, 'Mental Time Travel, Somatic Markers and "Myopia for the Future"' (2007) 159 *Synthese* 459, 472.

<sup>119</sup> Michel Desmurget and Angela Sirigu, 'Conscious Motor Intention Emerges in the Inferior Parietal Lobule' (2012) 22 *Current Opinion in Neurobiology* 1004, 1009.

<sup>120</sup> See Chapter 3.4.b.

<sup>121</sup> These could also be described as complex actions. See Chapter 3.2.a.

<sup>122</sup> For further information see Chapter 3.4.b.

<sup>123</sup> See earlier discussion in this Section.

that a control model leaves, such as regarding the necessary threshold to be deemed in control and therefore voluntary. But equally, it would expose itself to assessment over the necessary degree of awareness over a certain movement, intensity of the urge to act, etc. Moreover, a focus on consciously made decisions and intended movements may not cover certain actions that could be unconscious but nevertheless voluntary. These movements relate primarily to habitual ones.<sup>124</sup>

Habitual movements have mostly been categorised as voluntary in the legal and philosophical literature,<sup>125</sup> but it has not generally been clear whether they are consciously intended or not. However, research in habitual movement does reveal a difference between such movements and those that are goal-directed. A key difference lies in the level of attention needed to perform a certain movement. For instance, habitual movement requires a lower level of attention on the subject's part, as attention is needed on a much larger scale when the person is engaged in novel movement in order to perform it accurately.<sup>126</sup> Indeed, all habits arise from learning a particular movement, so there was goal-directedness to begin with, but the movement becomes more automated through repetition and is not as dependant on the outcome.<sup>127</sup> Most tasks we do are characterised by predictability, for instance in the case of driving; but when something unpredictable disrupts the movement, e.g. a pedestrian in the middle of the road, an immediate switch from habitual to goal-directed control occurs.<sup>128</sup> From a more neuroscientific perspective, studies suggest that these types of movements are also different in terms of the activation of different areas of the brain. For instance, O'Hare and others note that the maintenance of habit relies of the dorsolateral striatum (DLS), a section of the basal ganglia.<sup>129</sup> In particular, the way

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<sup>124</sup> See Chapter 3.4.b.

<sup>125</sup> Law Commission, *Criminal Liability: Insanity and Automatism. A Discussion Paper* (2013) A.48. See also Jeremy Horder, 'Pleading Involuntary Lack of Capacity' (1993) 52 CLJ 298, 302; and J J Child, 'Defence of a Basic Voluntary Act Requirement in Criminal Law from Philosophies of Action' (2021) 24 New Criminal Law Review, 11. See however Gideon Yaffe, 'The Voluntary Act Requirement' in Andrei Marmor (ed), *The Routledge Companion to Philosophy of Law* (Routledge 2012) 176: 'We treat habitual bodily movements, that is, as though they were voluntary acts in the legal sense, even though we have no idea if they are in fact'.

<sup>126</sup> Kitae Baek and others, 'Impaired Awareness of Motor Intention in Functional Neurological Disorder: Implications for Voluntary and Functional Movement' (2017) 47 Psychological Medicine 1624, 1632.

<sup>127</sup> Justin K O'Hare and others, 'Pathway-Specific Striatal Substrates for Habitual Behaviour' (2016) 89 Neuron 472, 471.

<sup>128</sup> Peter Redgrave and others, 'Goal-Directed and Habitual Control in the Basal Ganglia: Implications for Parkinson's Disease' (2010) 11 Nature Reviews: Neuroscience 760, 764.

<sup>129</sup> *ibid.*

in which the DLS processes incoming cortical activity to generate the firing of neurons can be correlated with habitual movement.<sup>130</sup>

The distinction between goal-directed and habitual movement is potentially more evident if we look at inhibition of movement, a constituent element of the control mechanism. According to Jahanshahi and others, there are two types of inhibition, namely ‘goal-directed’, which is intentional, and ‘habitual’, which is usually developed through practice and learning, and is largely automatic.<sup>131</sup> These can also be called ‘proactive’, in the pursuit of a goal, for instance, avoiding high-calorie foods to lose weight, or ‘reactive’, responding to a stimulus such as a red light.<sup>132</sup> When it comes to the inhibition of habitual movement, O’Hare and others have identified a specific pathway within the DLS that can be correlated with the suppression of habitual movement.<sup>133</sup> Most importantly, these pathways seem to be distinct than those that suppress goal-directed movement,<sup>134</sup> which studies have correlated with the dorsomedial striatum,<sup>135</sup> even though they are all located within the basal ganglia. At the same time, there is a relationship between the pathways that help inhibit both types of movement. Patients suffering from Parkinson’s offer a good example of the interaction between these pathways. For instance, Redgrave and others note that low levels of dopamine could lead to a major deficit in the control of habitual movements, but that the dysfunctionality in the neural circuit could also impact the ‘expression of residual goal-directed responses’.<sup>136</sup> This is because even though they are distinct, both habitual and goal-directed control circuits converge on a common motor pathway.<sup>137</sup>

However, the distinction that can be made in terms of habitual and goal-directed movement suggests that the former is not necessarily intentional or even conscious. In the context of the voluntariness requirement, we are interested in consciousness as reflecting awareness of one’s

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<sup>130</sup> *ibid.*

<sup>131</sup> Marjan Jahanshahi and others, ‘A Fronto-striato-subthalamic-pallidal Network for Goal-directed and Habitual Inhibition’ (2015) 16 *Nature Reviews: Neuroscience* 719, 720.

<sup>132</sup> *ibid* 719.

<sup>133</sup> O’Hare and others (n 127) 477.

<sup>134</sup> *ibid.*

<sup>135</sup> Redgrave and others (n 128) 764.

<sup>136</sup> *ibid* 761.

<sup>137</sup> *ibid* 767.

movement, and it cannot be argued that every habitual movement is made under full awareness. This is linked to the argument that certain types of movement, whilst voluntary, cannot be categorised as intentional.<sup>138</sup> Therefore, even from a scientific viewpoint, to rely on intention as a defining characteristic of voluntariness may be under-inclusive. Alternatively, we could take Haggard's view that habitual movement is not 'volitional',<sup>139</sup> but our ultimate purpose here is to inform legal debates, rather than choose one neuroscientific correlation over another. As Morse argues, the law is based on 'normative behavioral criteria',<sup>140</sup> which do include habits within the remit of voluntariness. As such, what is argued here is that the studies referred to above suggest that distinguishing habitual from intentional movement would not be conceptually wrong, based on specific neural pathways and brain areas dedicated to each type of movement. This would also provide empirical support for our avoidance of 'consciousness' or 'intention' to describe voluntariness, despite the reference to these concepts in both case law and legal scholarship, specifically due to the potential under-inclusiveness brought by the approach, namely the exclusion of habitual bodily movements. In addition, the above discussion sheds further light into inhibitory mechanisms, identifying neural pathways and regions that are involved in the control of bodily movements, providing further empirical evidence into the workings of the system and, implicitly, into its existence.

#### 4. Conclusion

This chapter has analysed the way in which the control model manifests itself in the neuroscientific perspective, in order to explore whether such model is best suited at rationalising the voluntariness requirement in law. Having reviewed studies and evidence surrounding the ability to regulate our movements, as well as the relevance of awareness and intention in findings of voluntariness, it is argued that there is empirical evidence to support a continued reliance on a

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<sup>138</sup> See Chapter 3.4.b.

<sup>139</sup> Haggard argues that habitual movement is not 'spontaneous' or 'innovative', which he thinks are constituent elements of 'volition'. See Haggard (n 57) 11.

<sup>140</sup> Morse (n 27) 521.

control model. This is notwithstanding certain limitations that apply to any attempt to incorporate neuroscience into the law, such as the inability to conclusively rely on correlations, for instance, in linking a cognitive process to a certain behavioural output.

Going beyond the identification of different areas of the brain involved in a range of cognitive processes related to the generation and inhibition of movement, sense of self etc., the evidence reviewed so far supports the view that there is an identifiable ability to move otherwise, largely based on our capacity to inhibit our movement. For instance, performance measurements analysing the way in which we refrain from acting or stop moving, as well as studies looking at failures of the mechanisms underlying motor control, suggest that there are specific cognitive processes involved in the regulation of movement. At the same time, the chapter also addressed neuroscientific evidence surrounding intentional movement, considering that the previous chapter has provisionally argued against it as a yardstick for identifying voluntariness. Here, it was argued that the existence of specific neural pathways and brain areas dedicated to habitual and intentional movement support our previous separation between the two types of movement. This approach does not mean that intention is irrelevant for voluntariness, as there are a multitude of processes and brain regions associated with goal-directedness and awareness that may well play a part in voluntary movement. However, the reason why a control model is to be preferred is that it is more comprehensive in terms of including every type of voluntary movement, as opposed to an intention model, which may be under inclusive.

In this context, the next step in the present analysis will focus on exploring the practical implication of adopting a control model based on the exercise of sufficient bodily control. To this effect, the following chapter will produce a case study focusing on hypnotic movements and their status in law if the proposed standard of voluntariness in law were to be adopted. Such movements are often categorised by courts as involuntary, but it is not exactly clear on what basis such categorisation is made.<sup>141</sup> As such, exploring this category of cases will allow us to showcase the value and impact of having a definition of voluntariness in law and, most importantly, to identify

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<sup>141</sup> For further detail see Chapter 2.

whether the new model would effectively lead to different legal outcomes. In addition, given the extensive availability of scientific research and literature on hypnotic movements, the analysis provides an additional empirical layer to the present analysis.

## CHAPTER 5

### CASE STUDY: HYPNOSIS AND THE VOLUNTARINESS REQUIREMENT

#### 1. Introduction

So far, this thesis has sought to explore different rationalisations of the concept of voluntariness, identifying the most appropriate model to implement in the criminal law; one that is adequate from both a descriptive and normative standpoint. Having settled on a model based on control and the capacity to move otherwise, the following chapter aims at investigating the practical implications of adopting this definition in law. To do so, the chapter revisits one of the scenarios of alleged involuntary movement examined in the second chapter of the thesis. Specifically, exploring one of the categories discussed by courts will allow us to showcase the value and impact of having a definition of voluntariness in law and, most importantly, to identify whether the new model would effectively lead to different legal outcomes. In this context, the present chapter will focus on exploring the relationship between hypnosis and involuntary movement, analysing whether hypnotised individuals are voluntary, i.e. whether they can exercise sufficient bodily control to the effect that they can move otherwise or refrain from moving.

Out of the categories discussed in the second chapter, hypnotic movement is a suitable case study due to the extensive availability of empirical evidence on the topic. Moreover, it is arguably one of the categories of movement that courts and law-making bodies have least engaged with from a theoretical and empirical standpoint. This is the case despite there being continuous references to hypnotic movements as involuntary within case law, statutes, as well as proposals for reform.<sup>1</sup> Therefore, bridging the gap in evidence and analysing the approach taken by courts from a scientific perspective provides an excellent opportunity to apply the control definition of voluntariness and to explore its legal impact. In addition, carrying on from the previous chapter, this examination further incorporates neuroscientific data into our legal assessment, providing an

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<sup>1</sup> See Chapter 2.7.

empirical footing to legal assumptions and thus contributing to the development of additional neurolaw research.

When addressing the way in which courts and law-makers alike have presented hypnosis in the context of the voluntariness requirement, there seems to be little more than a categorisation of hypnosis as enabling subjects to move involuntarily. Courts generally describe hypnotic influence as an external factor that would warrant a claim of automatism, but without explaining why that is the case.<sup>2</sup> On one hand, this could be attributed to the limited encounters with such claims. For instance, courts in England and Wales have only made this categorisation in *obiter*, when addressing other claims of automatism, but have not had the opportunity to explore the relationship between hypnosis and automatism in more depth.<sup>3</sup> On the other hand, in jurisdictions such as Canada or the United States, where the courts have faced claims of hypnotic movement, there has been an equally minimal discussion on the topic. In *Book*,<sup>4</sup> judges accepted the argument that, following unsuccessful attempts to ‘de-hypnotise’ a hypnotised man, the defendant later experienced ‘total amnesia’, ‘a deep trance’ and ‘a robot-like state of automatism’ whilst driving erratically.<sup>5</sup> Nevertheless, in deciding that the prosecution had not proved that the defendant had acted voluntarily, no further clarification was given as to why that categorisation was made.

A similar lack of clarification can be found in statutes and official documents. For example, the Law Commission has cited hypnotic influence as one of the few instances in which its redefined automatism ‘defence’ would still apply.<sup>6</sup> Equally, the US Model Penal Code (MPC) states that ‘conduct during hypnosis or resulting from hypnotic suggestion’ does not amount to a voluntary act needed to fulfil the voluntariness requirement.<sup>7</sup> This approach is also seen in the Montana Code Annotated 2019, which follows the definition in the MPC and includes this example in its

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<sup>2</sup> See Chapter 2.7.

<sup>3</sup> See for example *R v Quick* [1973] QB 910, 923, where Lawton LJ argued that hypnotic influence amounts to an external factor that warrants a finding of automatism; and *R v Coley* [2013] EWCA Crim 233, [22], where Hughes LJ states that ‘the man under hypnosis’ would fit the requirement of a ‘complete destruction of voluntary control’ for the purposes of the automatism ‘defence’.

<sup>4</sup> *R v Book* [1999] ABPC 149. For further information, see Chapter 2.7.

<sup>5</sup> *R v Book* [1999] ABPC 149, [12].

<sup>6</sup> Law Commission, *Criminal Liability: Insanity and Automatism. A Discussion Paper* (2013) para 5.106.

<sup>7</sup> MPC s.2.01(2)(d).

list of involuntary movements.<sup>8</sup> However, none of the aforementioned accompanies the categorisation with an explanation as to why hypnotic movement is involuntary.

The limited analysis of the issue leaves one to assume that the conceptualisation of hypnosis is consistent with a popular image of hypnotic participants as experiencing trance-like states, behaving outside their own powers.<sup>9</sup> Starting with the introduction of the concept of ‘animal magnetism’ (also known as mesmerism) by German doctor Franz Mesmer during the 18<sup>th</sup> Century,<sup>10</sup> people have been fascinated with the possibility of an occult force being used to compel people to behave in a way that contradicts their character. With the advent of cinematography and later television, popular media has consistently propagated negative stereotypes of the practice, using imagery such as that of hypnotists inducing subjects through twirling spiral discs, swinging watches etc.<sup>11</sup> Applications of hypnosis to cultural outputs have included young women surrendering to sexual advances, seemingly upstanding citizens being compelled to harm themselves or others, committing gruesome murders, etc. A similar focus on the misuse of hypnosis can be seen with stage hypnosis, a form of entertainment that has grown in popularity over the past few centuries, in which participants undergo hypnosis in front of a live audience. For instance, according to Heap, common assumptions surrounding these events relate to the ability of the hypnotist to compel anyone into entering ‘a deep trance’, regardless of their level of suggestibility.<sup>12</sup> More important here is the preconception that in the absence of a proper ‘release’ from a trance, participants could carry on behaving contrary to their will.<sup>13</sup>

The abovementioned stereotypes do not necessarily mean that the majority of the population adheres to this view. In fact, many of the myths surrounding the occult or supernatural character

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<sup>8</sup> Montana Code Annotated 2019 45-2-101, s.33 (c).

<sup>9</sup> See for example Graham F Wagstaff, ‘Hypnosis and the Law: Examining the Stereotypes’ (2008) 35 *Criminal Justice and Behaviour* 1277, 1279.

<sup>10</sup> Practices resembling hypnosis date back to prehistoric times, but contemporary descriptions can be traced back to Mesmer and his mention of the practice of magnetism. See Judith Pinter and Steven Jay Lynn, *Hypnosis: A Brief History* (Wiley-Blackwell 2008) 12.

<sup>11</sup> For a review of hypnosis in popular media, see Deirdre Barrett, ‘Hypnosis in Popular Media’ in Deirdre Barrett (ed), *Hypnosis and Hypnotherapy* (Praeger 2010) 77-96.

<sup>12</sup> Michael Heap, ‘The Alleged Dangers of Stage Hypnosis’ (2000) 17 *Contemporary Hypnosis* 117, 120.

<sup>13</sup> *ibid* 121.

of hypnosis have now been debunked, to the point that the practice is now a commonly used form of therapy to improve mental health or to relinquish bad habits such as smoking.<sup>14</sup> However, to this day, representations of hypnosis within the media continue to perpetuate a view of hypnosis as that of a mystical, somewhat paranormal process, in which the hypnotised subject becomes helpless in the face of a powerful hypnotist seeking to manipulate them.<sup>15</sup> Against this backdrop, it would not be unreasonable to presume that some of these preconceptions may have impacted the approach taken by courts, the Crime Prosecution Service, or law-making bodies. Certainly, given the lack of detail within statutes and case law and the fact that courts have rarely been faced with this claim, there is not much judicial analysis to confirm that judges and law-makers adhere to this view. However, the mere lack of engagement with the topic could easily be linked to a presumption about hypnotic movement so ingrained in public consciousness that would make it redundant to even explain why hypnotised individuals should not be deemed voluntary.

In order to shed light on the nature of hypnosis and the way this should be understood in the context of the voluntariness requirement, the following chapter focuses on addressing common rationalisations of hypnosis, including theoretical and empirical research surrounding the nature of the process. In particular, the analysis will seek to identify whether there is any evidence to indicate that hypnotised subjects suffer a significant impairment to control functions and/or are unable to resist suggestions from hypnotists. This is particularly important considering the argument made by Hughes LJ in *Coley* that hypnosis would be an appropriate example of a ‘complete’ destruction of control needed to secure a finding of automatism.<sup>16</sup> Therefore, the analysis will enable us not only to apply the proposed model of voluntariness based on ‘sufficient’ control, but also ascertain whether courts are justified in categorising hypnotic movements as involuntary under the current approach.

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<sup>14</sup> For example, hypnotherapy is acknowledged by the National Health Service (NHS) as a valid form of treatment. See NHS, ‘Hypnotherapy’ <<https://www.nhs.uk/conditions/hypnotherapy/>> accessed 05 October 2020.

<sup>15</sup> John F Kihlstrom, ‘The Doman of Hypnosis, Revisited’ in Michael R Nash and Amanda J Barnier (eds), *The Oxford Handbook of Hypnosis: Theory Research and Practice* (OUP 2008) 23.

<sup>16</sup> *R v Coley* [2013] EWCA Crim 233, [22] (Hughes LJ).

## 2. Hypnosis and Control Functions

### a. Can Hypnotised Subjects Move Otherwise?

One of the researchers who has studied the impact of hypnosis on control functions is Hilgard. Hilgard is mostly associated with the ‘neodissociation’ theory of hypnosis, which builds on from dissociation theories that had previously focused on paralysis, amnesia, depersonalisation due to sleepwalking, multiple personality disorders etc.<sup>17</sup> Specifically, Hilgard argues that, similar to these phenomena, hypnosis interferes with processes of association such as recalling memories or coordinating bodily movements.<sup>18</sup> Moreover, it impacts the planning and initiation of action, as subjects, or at least part of the executive system, cannot ‘independently undertake new lines of thought or action’.<sup>19</sup> Equally, Hilgard argues that hypnosis affects the ability of executive functions to connect with monitoring functions in that the subject would still be able to observe but not fully account for and perceive the information coming in.<sup>20</sup> In other words, it involves the ‘splitting off of certain mental processes from [...] consciousness’.<sup>21</sup>

For the purposes of the voluntariness requirement, the idea that subjects may lose consciousness and dissociate is not as important unless the dissociation significantly impairs control mechanisms, which would make finding a subject voluntary more challenging. In other words, considering that the model proposed in the present thesis is solely concerned with one’s ability to experience sufficient control over their movements, rather than an awareness of those movements, a loss of consciousness of processes by parts of a person does not raise questions on its own. As mentioned above, for Hilgard, hypnosis impacts subjects’ ability to fully perceive and engage with their surroundings, at least by one part of the executive system.<sup>22</sup> However, even if

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<sup>17</sup> Dissociation theories are mainly associated with Pierre Janet, an early 20<sup>th</sup> Century psychologist. For a summary of Janet’s concept of dissociation, see Erik Z Woody and Pamela Sadler, ‘The Development of Dissociation Theories of Hypnosis’ in Nash and Barnier (n 15) 82-83.

<sup>18</sup> Ernest R Hilgard, ‘A Neodissociation Interpretation of Hypnosis’ in Steven J Lynn and Judith W Rhue (eds), *Theories of Hypnosis: Current Models and Perspectives* (Guildford Press 1991) 84-85.

<sup>19</sup> Ernest R Hilgard, ‘Dissociation and Theories of Hypnosis’ in Erika Fromm and Michael R Nash (eds), *Contemporary Hypnosis Research* (Guilford Press 1992) 50.

<sup>20</sup> *ibid* 50-51.

<sup>21</sup> *ibid* 69.

<sup>22</sup> *ibid* 50-51.

dissociation fragments one's ability to fully comprehend the context in which a movement ensues, this does not mean that control is affected in terms of executing alternative bodily movements. For the purposes of the voluntariness requirement, which is solely concerned with the ability to retain sufficient bodily control, rather than the capacity to comprehend the context or consequences of an action, this is not necessarily challenging. Specifically, the ability of the executive system to function, even if dissociated, can still enable one to perform alternative bodily movements and thus exercise control over movements. Thus, even in the absence of an awareness of physical movements or intentions, the subject may still be voluntary for legal purposes.<sup>23</sup> Certainly, evidence of one's inability to understand what they were doing may be probative in respect of a lack of *mens rea* or the application of a defence.<sup>24</sup>

Earlier in his research, Hilgard had argued that successful hypnotic suggestions 'take much of the normal control away from the subject',<sup>25</sup> with hypnosis leading to a loss of 'voluntary control'.<sup>26</sup> Moreover, he had stated that alterations in control systems were usually more apparent than any fundamental change in our interpretation of reality.<sup>27</sup> However, in later works, Hilgard seems to depart from his earlier ideas. In fact, much of Hilgard's work has focused on the 'fractioning' of monitoring functions and the reduction in 'critical scanning', i.e. in one's ability to perceive and take into account what is happening in their surroundings.<sup>28</sup> When referencing control being relinquished, Hilgard has been mainly concerned with dissociation between systems, rather than the effect on the systems themselves. For instance, he acknowledges that parts of the executive function are very much intact during hypnosis and only some dissociate, i.e. are concealed from awareness.<sup>29</sup> Most significantly, Hilgard states that hypnotised people retain 'a considerable

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<sup>23</sup> Following the discussion in Chapters 3.4.b-c and 4.3, consciousness is not relevant for a finding of voluntariness, given the potential for such concept to be under-inclusive. That is, while conscious bodily movement is generally voluntary, not all unconsciously produced movements are involuntary. The most common case is that of habitual actions.

<sup>24</sup> For a discussion of the relevance of such evidence for the criminal law, see Section 5.

<sup>25</sup> Hilgard (n 18) 98.

<sup>26</sup> *ibid* 84.

<sup>27</sup> Ernest R Hilgard, 'Divided Consciousness in Hypnosis' in Erika Fromm and Ronald E Shor (eds), *Hypnosis: Developments in Research and New Perspectives* (2<sup>nd</sup> edn, AldineTransaction 2009) 45.

<sup>28</sup> Hilgard (n 19) 96.

<sup>29</sup> Hilgard (n 19) 99. Certainly, any type of physical movement originating from the body would reflect the involvement of the executive system.

portion' of executive functions, acknowledging that subjects may refuse or accept hypnotists' requests to move around or engage in certain activities.<sup>30</sup> Even when a suggestion is completely followed, one part of the executive system controls and monitors what is going on. Thus, under this theory, subjects retain their ability to retain some control, at least a sufficient level to engage in alternative bodily movements.

At the same time, in contrast with Hilgard, other dissociation theorists such as Woody and Bowers have adopted the view that hypnosis leads to a genuine loss of control, as opposed to simply a perception of losing control. That is, a genuine alteration of control functions would occur.<sup>31</sup> According to the authors, a hypnotised subject would perceive a movement as involuntary because the movement would effectively be executed automatically, without cognitive control.<sup>32</sup> Whereas Hilgard focuses more on the division of consciousness, 'dissociated control' focuses on the dissociation from executive control, likening hypnotic responding to movements performed by patients suffering from impairments to frontal lobes.<sup>33</sup> Moreover, the two theories differ in the amount of cognitive effort involved whilst hypnotised. Compared to neodissociation theory, which may involve 'strategic efforts' such as that involved in altering one's perception of pain, Bowers argues that 'lower cognitive costs' are involved in 'dissociated control'.<sup>34</sup> Beyond conceptual differences, the theory's relevance for the legal analysis of voluntariness is that it would cast doubt on the argument that hypnotised individuals are in control of their bodily movements. A genuine alteration to self-control, as opposed to merely the perception of it, could effectively render subjects unable to move their bodies otherwise.

From an empirical perspective, dissociation theories have been tested by comparing the extent to which hypnosis interferes with subjects' ability to carry out tasks and the level of cognitive effort

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<sup>30</sup> *ibid* 94. The potential for subjects to resist suggestions will be addressed in the following section.

<sup>31</sup> Erik Z Woody and Kenneth S Bowers, 'A Frontal Assault on Dissociated Control' in Steven J Lynn and Judith W Rhue (eds), *Dissociation: Clinical and Theoretical Perspectives* (Guildford Press 1994) 63.

<sup>32</sup> *ibid*.

<sup>33</sup> See also Irving Kirsch and Steven Jay Lynn, 'Dissociation Theories of Hypnosis' (1998) 123 *Psychological Bulletin* 100, 103.

<sup>34</sup> Kenneth S Bowers 'Imagination and Dissociation in Hypnotic Responding' (1992) 40 *International Journal of Clinical and Experimental Hypnosis* 253, 265.

involved in the process.<sup>35</sup> For instance, in a study by Stevenson, subjects were divided into two groups, one with highly hypnotisable participants and another with participants simulating hypnosis.<sup>36</sup> The purpose of the experiment was to measure the effect of hypnotic dissociation in increasing or decreasing the performance of simultaneous tasks, where one of the tasks is performed subconsciously.<sup>37</sup> These tasks related to consciously naming colours presented on a piece of cardboard, as well as counting and adding numbers in writing (both consciously and unconsciously).<sup>38</sup> In support of Hilgard's theory, Stevenson recorded that, compared to control participants, highly hypnotisable individuals appeared to form high levels of cognitive effort to maintain a task outside their awareness.<sup>39</sup> This effort increased proportionate to the demands of the tasks, with the highest effort being produced in the most complex scenario, which involved simultaneously naming colours and subconsciously adding numbers.<sup>40</sup> A similar result was also observed in a study by Knox and others, which involved the tasks of colour naming and key pressing at various levels of awareness.<sup>41</sup> Here, the authors argued that the increased cognitive effort could be attributed to either the attempt to simultaneously perform the two tasks or to that of keeping a task outside one's awareness.<sup>42</sup>

One could argue that the above studies do not necessarily disprove dissociated control theory, as it relates to mechanisms. This is because it may technically be possible for cognitive effort to be aimed at keeping a task outside awareness, whilst still being impacted in terms of the ability to perform alternative movements. However, it would seem highly unlikely that a subject could actively engage in endeavours to create and maintain a lack of awareness over their movements

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<sup>35</sup> For example, Kirsch and Lynn argue that given the 'diametrically opposite predictions' regarding task interference, they can be directly tested against one another. See Kirsch and Lynn (n 33) 106.

<sup>36</sup> James H Stevenson, 'Effect of Posthypnotic Dissociation on the Performance of Interfering Tasks' (1976) 85 *Journal of Abnormal Psychology* 398, 399.

<sup>37</sup> *ibid.*

<sup>38</sup> *ibid* 400. The subconscious condition entailed subjects' hands being placed in a box, concealed from their view.

<sup>39</sup> *ibid* 405. See also Hilgard (n 19) 73.

<sup>40</sup> James H Stevenson, 'Effect of Posthypnotic Dissociation on the Performance of Interfering Tasks' (1976) 85 *Journal of Abnormal Psychology* 398, 404.

<sup>41</sup> Jane Knox, Lila Crutchfield, and Ernest R Hilgard, 'The Nature of Task Interference in Hypnotic Dissociation: An Investigation of Hypnotic Behavior' (1975) 23 *International Journal of Clinical and Experimental Hypnosis* 305.

<sup>42</sup> *ibid* 320.

without an ability to control those movements. Moreover, the expenditure of cognitive effort would have to come about with no involvement from those mechanisms dedicated to action planning and error correction, which are important for engaging in more novel or complex behaviour.<sup>43</sup> Woody and Bowers have argued that control is impacted during hypnosis due to such mechanisms being directly bypassed during hypnosis, activating instead those processes associated with habitual or routine activities, which do not rely on a person's attention to supervise them.<sup>44</sup> However, tasks as complex as adding numbers are unlikely to be produced solely through the input of those mechanisms involved in habitual movements, as they rely on the person's attention. As Stevenson noted, engaging in simultaneous tasks such as those involved in his research would effectively divide attention between those tasks of naming colours and adding numbers.<sup>45</sup> This challenges Woody and Bowers' theory. In fact, hypnotised subjects' ability to engage in novel movement has been recorded in multiple studies, which also contribute to the argument that subjects are able to move alternatively.<sup>46</sup>

Within the past few decades, hypnosis theorists have focused more specifically on the level of control maintained by subjects, but while recognising the centrality of subjective experience. Dissociation theories have often been criticised for ignoring the socio-cultural context in which hypnosis arises, playing undue emphasis on cognitive changes and neurophysiological data.<sup>47</sup>

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<sup>43</sup> This system is often referred to as the 'supervisory attentional system', which normally operates at a high cognitive level, by monitoring activity at the contention scheduling level (action selection) and activating or inhibiting action schemata. For further information, see Donald Arthur Norman and Tim Shallice, 'Attention to Action: Willed and Automatic Control of Behaviour' in R J Davidson, G E Schwartz, and D Shapiro (eds), *Consciousness and Self-Regulation, Vol 4* (Plenum Press 1986) 3.

<sup>44</sup> Woody and Bowers (n 31) 60. See also Erik Woody and Peter Farvolden, 'Dissociation in Hypnosis and Frontal Executive Function' (1998) 40 *American Journal of Clinical Hypnosis* 206, 209. Woody and Bowers relied on a hierarchal layout of control functions developed by Norman and Shallice, which operates based on two complementary processes, those of 'contention scheduling' and 'supervisory attentional system'. For further information see Norman and Shallice (n 43) 3.

<sup>45</sup> Stevenson (n 36) 406.

<sup>46</sup> See for example Lorne D Bertrand and Nicholas P Spanos, 'The Organization of Recall During Hypnotic Suggestions for Complete and Selective Amnesia' (1985) 4 *Imagination, Cognition and Personality* 249. Here, subjects were asked to selectively forget words, which would suggest that executive functioning at play for that suppression.

<sup>47</sup> See for example Steven Jay Lynn, Irving Kirsch and Michael N Hallquist, 'Social Cognitive Theories of Hypnosis' in Nash and Barnier (n 15) 112; and Graham F Wagstaff, 'The Semantics and Physiology of Hypnosis as an Altered State: Towards a Definition of Hypnosis' (1998) 15 *Contemporary Hypnosis* 149, 161: 'whether they are actually in or out of, or have been in an "altered state of consciousness" . . . is an irrelevance.'

However, theories such as that ‘cold control’, developed by Dienes and Perner, have adopted a more middle ground approach. Specifically, according to the theory, hypnotised individuals can successfully respond to suggestions by forming an intention to perform whatever the hypnotists asks them to perform, but without forming ‘higher order thoughts’ of intending the movement itself.<sup>48</sup> That is, mental states such as intentions can be unconscious in the absence of a higher-order thought about being in that state, e.g. intending to do something.<sup>49</sup> During hypnosis, subjects can successfully respond to suggestions by developing an intention to adhere to the instructions of the hypnotist, but without developing thoughts about intending the required movements themselves.<sup>50</sup> What is significant is that, regardless of the degree of awareness over one’s intentions, control over bodily movements is retained.<sup>51</sup> In this sense, ‘cold control’ is ‘cold’ because there is a preservation of executive control, but with a loss of awareness of intentions.<sup>52</sup>

From a legal perspective, ‘cold control’ theory is relevant for the proposed model of voluntariness because it claims that cognitive control is maintained during hypnosis, irrespective of changes to consciousness. Therefore, it justifies a legal categorisation of hypnotic movement as voluntary. Theoretically, ‘cold control’ is similar to neodissociation theory in that it acknowledges that hypnosis has an impact on executive functions, with physiological modifications and the presence

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<sup>48</sup> Zoltan Dienes and Josef Perner, ‘The Cold Control Theory of Hypnosis’ in Graham Jamieson (ed), *Hypnosis and Conscious States: The Cognitive Neuroscience Perspective* (OUP 2007) 293. Here, when referring to ‘higher order thoughts’, the authors drew on Rosenthal’s theory of consciousness, according to which mental states are conscious when people have a higher-order thought to the effect that they are in that particular state. These thoughts are not necessarily conscious themselves, but they relate to the ‘informational content’ or ‘sensory quality’ of the respective state. For example, when we have someone’s name on ‘the tip of our tongues’ but are not able to recall it, Rosenthal argues that we are conscious of being in some state that contains the relevant information, but not conscious of the state ‘*in respect of* that information itself’. See David M Rosenthal, ‘Two Concepts of Consciousness’ (1986) 49 *Philosophical Studies* 329, 336; and David M Rosenthal, ‘Consciousness, Content and Metacognitive Judgements’ (2000) 9 *Consciousness and Cognition* 203, 205.

<sup>49</sup> David M Rosenthal, ‘V. Consciousness, Interpretation and Higher-Order Thought’ (2005) 717 *Verlag der Österreichischen Akademie der Wissenschaften* 119, 133. See also Zoltan Dienes, Peter Lush, and Bence Palfi, ‘Controlling Phenomenology by Being Unaware of Intentions’ in Josh Weisberg (ed) *Qualitative Consciousness: Themes from the philosophy of David Rosenthal* (CUP) (forthcoming) 3; and Amanda J Barnier, Zoltan Dienes and Chris J Mitchell, ‘How Hypnosis Happens: New Cognitive Theories of Hypnotic Responding’ in Nash and Barnier (n 15) 150.

<sup>50</sup> Dienes and Perner (n 48) 296; and Barnier, Dienes and Mitchell (n 49) 150.

<sup>51</sup> Dienes and Perner (n 48) 303.

<sup>52</sup> Zoltan Dienes, ‘Is Hypnotic Responding the Strategic Relinquishment of Metacognition?’ in Michael J Beran and others (eds), *Foundations of Metacognition* (OUP 2012) 267.

of distinct neural processes.<sup>53</sup> Particularly, it recognises the role of the executive system, given primarily the ability to perform novel movements and the preservation of the ability to overcome or inhibit strong responses, which require high-level cognitive control processes.<sup>54</sup> Examples include the ability to skip numbers when counting in a sequence or even, in limited circumstances, suppressing the habit of reading.<sup>55</sup> This is consistent with the earlier discussion on ‘dissociated control’, in which it was highlighted that many hypnotised individuals can engage in novel movements, in contrast with the hypothesis proposed by Woody and Bowers, that hypnosis entails subjects bypassing those mechanisms involved in complex movements.<sup>56</sup>

For the purposes of the voluntariness requirement, the research discussed above is more persuasive in terms of the argument that bodily control is retained during hypnosis, despite alterations in consciousness. That is, losing consciousness over one’s movement does not necessarily eliminate its voluntariness. The fact that subjects can expend cognitive efforts towards performing novel or more complex actions suggests that impairments to control mechanisms do not occur during hypnosis. At the same time, the theories discussed so far do not necessarily provide an explanatory framework that is comprehensive enough to adopt for legal purposes. For instance, despite Hilgard’s reference to the relatively low impact to executive functions, and the fact that subjects can refuse requests to perform specific activities, he also argued that as part of the ‘hypnotic contract’, subjects may turn over some of their functions to hypnotists.<sup>57</sup> This includes the possibility that a participant may ‘lose control of his or her movements if this is indicated’.<sup>58</sup> Thus, a counterargument to the theory relates to the potential for a hypnotist’s instruction to be so powerful that it could impact one’s ability to move in opposition to the said

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<sup>53</sup> Dienes and Perner (n 48) 307.

<sup>54</sup> Dienes, Lush and Palfi (n 49) 7. See also Tobias Egner and Amir Raz, ‘Cognitive Control Processes and Hypnosis’ in Graham Jamieson (ed), *Hypnosis and Conscious States: The Cognitive Neuroscience Perspective* (OUP 2007) 30.

<sup>55</sup> See for example and F J Evans, ‘Posthypnotic Amnesia’ in G D Burrows and L Dennerstein (eds), *Handbook of Hypnosis and Psychosomatic Medicine* 85; and A Raz and others, ‘Hypnotic Suggestion and the Modulation of Stroop Interference’ (2002) 59 *Archives of General Psychiatry* 1155; and Barnier, Dienes, and Mitchell (n 49) 153.

<sup>56</sup> Woody and Bowers (n 31) 63.

<sup>57</sup> Hilgard (n 19) 94.

<sup>58</sup> *ibid.*

instruction. If hypnosis affected subjects' capacity to initiate alternative movements, this would certainly constitute a significant impairment to control function and therefore render movements involuntary. To address this possibility, empirical evidence surrounding the ability to resist suggestions within hypnosis is essential.

### **b. Can Hypnotised Subjects Resist Suggestions?**

Rather than focusing solely on the effect of hypnosis on cognitive mechanisms, another way to ascertain whether subjects can retain control over their movements is to explore research surrounding their ability to resist suggestions. In other words, rather than focusing on brain functions, behavioural output can be just as informative in terms of our underlying capacity to move otherwise. In fact, a large part of hypnosis theory disagrees with the idea that hypnosis can truly lead to changes in executive functions, instead promoting instead the view the process is merely a response to a request for 'imaginative experiences'.<sup>59</sup> That is, much like other types of social behaviour, hypnosis does not have to be explained as a special process, but simply as a response to a 'persuasive communication' from the hypnotist.<sup>60</sup> Understood in this way, hypnotic responding is regarded as an ability to experience the world according to the instruction of the hypnotist and, in the case of the most suggestible, to observe no change in the external environment.<sup>61</sup>

One central argument surrounding the conceptualisation of the hypnotic process relates to the 'role' undertaken by subjects and their expectations surrounding what they will experience during hypnosis. For example, Spanos argues that responses to hypnotic suggestions involve subjects negotiating their surroundings, interacting with the hypnotist through 'mutually negotiated self-

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<sup>59</sup> Steven Jay Lynn, Irving Kirsch and Michael N Hallquist, 'Social Cognitive Theories of Hypnosis' in Nash and Barnier (n 15) 112. Some of these theories are also referred to as sociocognitive theories, as not all authors reject the idea that physiological markers of hypnosis do not exist or that these markers do not matter. The consensus though is that neurological data does not solve the debate surrounding the existence of an altered state of consciousness.

<sup>60</sup> Nicholas P Spanos 'Hypnotic Behaviour: A Social-Psychological Interpretation of Amnesia, Analgesia, and "Trance Logic"' (1986) 9 *The Behavioral and Brain Sciences* 449, 449.

<sup>61</sup> Lynn, Kirsch and Hallquist (n 59) 113.

presentations and reciprocal role validation'.<sup>62</sup> Specifically, people undergoing hypnosis assume the hypnotic 'role' and adjust their movement according to what they consider appropriate for that context.<sup>63</sup> Spanos built from Sarbin's 'role theory' of hypnosis, which sees hypnosis as 'role-taking', i.e. 'a social psychological behavior' in which subjects strive to take on the role of the hypnotised individual, the success of which depends on the motivation, prior experience and aptitude of the subject.<sup>64</sup> Here, the relationship between the subject and the hypnotist is regarded as a 'transaction' in which both parties assume reciprocal roles in order to meet the requirements of their own agendas.<sup>65</sup>

In contrast with neodissociation, theorists such as Spanos have sought to empirically challenge the over-reliance on physiological markers as an indicator of hypnosis, seeking to explain hypnotic processes in light of the situational cues and expectations that a subject has regarding what they are about to experience. Here, the emphasis is largely on the context and impact of the hypnotic suggestion, focusing on behavioural rather than physiological indicators of change. For instance, under this view, dissociation is attributed to the demand characteristics of an experiment, i.e. the effect of the participants' behavioural change in order to meet the perceived purpose of the study, as well as their general attitudes, beliefs, expectations etc.<sup>66</sup> By explaining the characteristics of splits from awareness and presenting detailed instructions, subjects can proceed to play 'the role of the "dissociated subject"', with experiments becoming more like "recipes" for teaching the [...] enactment of a social role'.<sup>67</sup> However, despite significant conceptual

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<sup>62</sup> Nicholas P Spanos, 'A Sociocognitive Approach to Hypnosis' in Lynn and Rhue (n 18) 326.

<sup>63</sup> *ibid.*

<sup>64</sup> Theodore R Sarbin, 'Contributions to Role-Taking Theory: I. Hypnotic Behavior' (1950) 57 *The Psychological Review* 255, 259. Sarbin's own theory builds on from the work of Robert W White, one of the first contemporary social psychological theorists of hypnosis to reject 'mechanistic approaches' to understanding hypnosis. For further information see Nicholas P Spanos and William C Coe, 'A Social-Psychological Approach to Hypnosis' in Fromm and Nash (n 19).

<sup>65</sup> William C Coe and Theodore R Sarbin, 'Role Theory: Hypnosis from a Dramaturgical and Narrational Perspective' in Lynn and Rhue (n 18) 304.

<sup>66</sup> Nicholas P Spanos, Maxwell Gwynn and Henderikus J Stam, 'Instructional Demands and Ratings of Overt and Hidden Pain During Hypnotic Analgesia (1983) 92 *Journal of Abnormal Psychology* 479, 485.

<sup>67</sup> Nicholas P Spanos and Erin C Hewitt, 'The Hidden Observer in Hypnotic Analgesia: Discovery or Experimental Creation?' (1980) 39 *Journal of Personality and Social Psychology* 1201, 1203.

disagreements among so-called ‘state’ and ‘non-state’ theorists,<sup>68</sup> these theories are broadly in agreement as to the idea that control is effectively retained throughout the process. That is, even though subjects may perceive their movements as involuntary, they do retain control.

From an empirical viewpoint, evidence surrounding people’s capacity to resist suggestions is most relevant as to whether hypnotised individuals lose control over their bodily movements. If subjects can refrain from moving in accordance with one’s instructions, that would demonstrate that the ability to move otherwise is not significantly impaired, at least for legal purposes. Existing studies addressing this issue indicate that this capacity is not affected. For instance, in a study by Lynn and others, the authors conducted an experiment with two sets of subjects.<sup>69</sup> One group of participants was told that successful responses to hypnotic inductions involved people resisting suggestions to move and continuing to experience their reactions to suggestions as being within their control.<sup>70</sup> The other group was informed of the contrary, i.e. that good responses to inductions lead to an inability to resist suggestion and little or no control.<sup>71</sup> When each group of participants was instructed to resist the subsequent hypnotic suggestion presented to them, subjects proceeded to act in line with the expectations they had created regarding successful responses to hypnosis.<sup>72</sup> That is, those who were told that good responses to suggestions left one unable to resist them complied with them and moved according to the requests of the hypnotist.<sup>73</sup> In the group that was told that successful participants were able to resist suggestions, subjects proceeded to resist them.<sup>74</sup>

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<sup>68</sup> In its simplest form, traditional scholarship surrounding hypnosis has been divided along the question of whether or not hypnosis causes physical changes in cognitive mechanisms and can be associated with altered states of consciousness or brain function. Whereas dissociation theories are usually regarded as ‘state’ theories, Sarbin and other theorists who describe hypnosis as a social behaviour would fit into the ‘non-state’ camp. For further information see Steven Jay Lynn, Oliver Fassler and Joshua Knox, ‘Hypnosis and the Altered State Debate: Something More or Nothing More?’ (2005) 22 *Contemporary Hypnosis* 39.

<sup>69</sup> Steven Jay Lynn and others, ‘Nonvolition, Expectancies, and Hypnotic Responding (1984) 93 *Journal of Abnormal Psychology* 295.

<sup>70</sup> *ibid* 297.

<sup>71</sup> *ibid*.

<sup>72</sup> *ibid* 298.

<sup>73</sup> *ibid* 300

<sup>74</sup> *ibid*.

The fact that in the study by Lynn and others, one group of highly hypnotisable subjects was able to resist suggestions indicates that, at least cognitively, participants can act against the demands of the hypnotist and (refrain to) move otherwise. A similar study was also conducted by Spanos and others, where the authors recorded that even highly hypnotisable individuals are able to easily resist suggestion.<sup>75</sup> One group of subjects was told that ‘deep hypnosis’ is reflected by the ability to successfully resist suggestions.<sup>76</sup> Another one was informed that the inability to resist suggestions reflects a deep state of hypnosis.<sup>77</sup> Consistent with the study by Lynn and others, following a procedure of hypnotic induction, the participants either resisted the suggestions or failed to resist them, in line with their expectations regarding what a successful hypnotic response is.<sup>78</sup> This suggests that even highly hypnotisable individuals retain control over their movements and responses. According to Spanos and others, participants guide their conduct according to the shifting requirements that signify a self-presentation as deeply hypnotised.<sup>79</sup> That is, subjects engage in ‘strategic role enactment’ to comply with the social demands that participants perceive to exist in the hypnotic context.<sup>80</sup> Convincing oneself that their movements are involuntary or uncontrollable is distinct from actually losing control.

The impact of expectations on hypnotic responding has been extensively researched within the literature, to the point that there is general agreement of the fact that perceptual experience is shaped by participants’ expectations of what they are about to undergo.<sup>81</sup> If subjects create the expectation that their movements under hypnosis will be involuntary, then this plays a significant role in those subjects interpreting their movements as such.<sup>82</sup> Furthermore, even studies which seem to challenge the idea that highly hypnotisable individuals can resist suggestion,

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<sup>75</sup> Nicholas P Spanos, Pamela C Cobb, and Donald R Gorassini, ‘Failing to Resist Hypnotic Test Suggestions: A Strategy for Self-presenting as Deeply Hypnotised’ (1985) 48 *Psychiatry* 282.

<sup>76</sup> *ibid* 285.

<sup>77</sup> *ibid* 284.

<sup>78</sup> *ibid* 290.

<sup>79</sup> *ibid* 291.

<sup>80</sup> *ibid*.

<sup>81</sup> See for example Irving Kirsch and Steven Jay Lynn, ‘Hypnotic Involuntariness and the Automaticity of Everyday Life’ (1997) 40 *American Journal of Clinical Hypnosis* 329, 338; and Irving Kirsch, ‘Response Expectancy Theory and Application: A Decennial Review’ (1997) 6 *Applied and Preventive Psychology* 69, 76.

<sup>82</sup> Lynn and others (n 69) 300.

acknowledge that expectations and situational demands affect the results of an induction. For instance, in a study conducted by Levitt and others, participants were told by a ‘resistance instructor’, i.e. a colleague other than the hypnotist, that they would be offered an incentive of \$100 if they successfully resisted the suggestion.<sup>83</sup> When hypnotised, subjects were only able to resist in 50% of cases, despite having reported similar positive impressions of the hypnotist.<sup>84</sup> Interestingly, half of those who did not resist reported a negative impression of the instructor, compared to none with resisters.<sup>85</sup> One possibility for the negative impression is that subjects may have taken the ‘bribe’ as a request to trick or betray the hypnotist in some way, which had been the case in an earlier experiment conducted by Levitt and Baker.<sup>86</sup> Thus, rather than hypnosis compelling them to follow suggestions, it is possible that subjects may have taken the financial incentive as a request to go against the situational demands of the experiments and hence act against what they perceived to be the objectives of hypnotist. In fact, Levitt and others acknowledged non-resisters may well be able to resist in future studies, thanks to modifications in ‘cognitive expectations, perceptions of the experimenters, or dimensions of social context’.<sup>87</sup> Therefore, such findings do not disprove the argument that situational demands are likely to drive hypnotic movement. Highly hypnotisable people strive to be good hypnotic subjects and that may entail creating the experience of being unable to resist the hypnotist, when that is called for by situational demands that the subject wishes to satisfy. In turn, this supports the assertion that participants retain sufficient control, at least in their capacity to move alternatively or refrain from moving.

Expectations have also played a role in developing theories of hypnosis such as that of ‘cold control’, discussed in the previous section. Specifically, when coining the concept of ‘cold control’, Dienes and Perner recognised people’s capacity to control subjective experiences so as

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<sup>83</sup> Eugene E Levitt, Elgan L Baker Jr., and Ronald C Fish, ‘Some Conditions of Compliance and Resistance among Hypnotic Subjects’ (1990) 32 *American Journal of Clinical Hypnosis* 225, 232.

<sup>84</sup> *ibid.*

<sup>85</sup> *ibid* 233.

<sup>86</sup> Eugene E Levitt and Elgan L Baker, ‘The Hypnotic Relationship - Another Look at Coercion, Compliance and Resistance: A Brief Communication’ (1983) 31 *International Journal of Clinical and Experimental Hypnosis* 125, 128.

<sup>87</sup> Levitt and others (n 83) *ibid* 235.

to comply with situational demands, expectations, and/or intentions, describing it as ‘phenomenological control’.<sup>88</sup> Significantly, the ability to shape experience in order to meet demand characteristics does not necessarily apply to hypnosis only. For instance, it may play a role in cases such as the rubber hand illusion, in which participants’ expectations as to what they are about to undergo help shape their perceptions and lead them to claim ownership over an artificial hand.<sup>89</sup> Similarly, the ability to shape subjective experience can also play a role in cases where participants observe people suffering physical pain or simply being touched and then report feeling pain (‘vicarious pain’) or experiencing tactile sensation (‘mirror touch synaesthesia’) as if it were genuine.<sup>90</sup> According to Dienes and others, evidence to this effect is indicative of the fact that a subject’s ability to be hypnotised is but one of various contexts in which people can exercise phenomenological control.<sup>91</sup> For instance, those people who experience vicarious pain or report sensations in an artificial hand have been shown to score high on hypnotisability scales, which is suggestive of a personal ability to alter one’s perceptions, regardless of whether a hypnotic induction is administered or not.<sup>92</sup> Therefore, to an extent, hypnosis is not more different than any other instance in which someone engages in imaginative experiences and loses the awareness over an intention. However, much like dissociative theorists like Hilgard had previously argued, regardless of perception, control is maintained.

From a legal viewpoint, the fact that subjects appear to be influenced much more by situational cues rather than the induction itself challenges assumptions such as those surrounding the potential for hypnosis to compel individuals to follow instructions blindly. Most importantly for the current analysis, the ability to resist suggestions, as shown by the studies discussed so far, indicates that there are plenty of circumstances in which subjects can move otherwise, depending

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<sup>88</sup> Dienes, Lush, and Palfi (n 49) 4.

<sup>89</sup> See Peter Lush, ‘Demand Characteristics Confound the Rubber Hand Illusion’ (2020) 5 *Collabra: Psychology* 22. This well-studied illusion entails subjects observing the rubber hand being stroked with a paintbrush at the same time as the real, hidden, hand is stroked, with participants eventually experiencing it as if the rubber hand was their real one. For further information, see Matthew Botvinick and Jonathan Cohen, ‘Rubber Hands ‘Feel’ Touch that Eyes See’ (1998) 391 *Nature* 756.

<sup>90</sup> See for example Zoltan Dienes and others, ‘Phenomenological Control as Cold Control: Hypnosis and Beyond’ (2020) *Psychology of Consciousness: Theory, Research, and Practice* (forthcoming).

<sup>91</sup> *ibid* 3.

<sup>92</sup> *ibid*.

on what satisfies the experimenter's objectives as perceived by a subject wishing to satisfy them. This is particularly relevant considering that the ability to move otherwise is central to the voluntariness model presented in the current analysis. Specifically, that the evidence supports the idea that, under a definition of voluntariness as 'sufficient bodily control', hypnotic movement would be classed as voluntary.

This idea that hypnotised subjects do not lose control also seems to be supported by research into the ability to resist suggestions to perform antisocial or illegal acts, which may go against one's moral code. For instance, Coe and others set out to test whether highly hypnotisable university students could be induced to engage in dealing heroin.<sup>93</sup> To do so, one experimenter first carried out inductions in experimental settings, introducing the suggestion that the participant would enter hypnosis upon hearing the verbal cue 'Go to sleep'.<sup>94</sup> Upon completing four sessions, subjects were informed that the experiment had finished and they would soon be sent the results of the evaluation.<sup>95</sup> However, the study had not actually concluded. Unbeknownst to subjects, the experimenter and a colleague continued interactions with participants via 'chance' meetings on the university campus, at which point a request to assist with dealing heroin was presented. While one group of highly hypnotisable subjects was not hypnotised, another group was administered the 'Go to sleep' cue before presenting the request.<sup>96</sup> The results showed that six out of fourteen non-hypnotised participants and three out of twelve hypnotised ones proceed to sell heroin, thus revealing no significant distinction between the two groups.<sup>97</sup> Beyond evident ethical concerns regarding the conditions in which the study was carried out, the results led the authors to

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<sup>93</sup> William C Coe, Ken Kobayashi, and Mark L Howard, 'Experimental and Ethical Problems of Evaluating the Influence of Hypnosis in Antisocial Conduct' (1973) 3 *Journal of Abnormal Psychology* 476. An earlier study by Orne and Evans had shown that hypnotisable subjects could be induced to throw acid in someone's face. See Martin T Orne and Frederick J Evans, 'Social Control in the Psychological Experiment: Antisocial Behavior and Hypnosis' (1965) 1 *Journal of Personality and Social Psychology* 189.

<sup>94</sup> William C Coe, Ken Kobayashi, and Mark L Howard, 'Experimental and Ethical Problems of Evaluating the Influence of Hypnosis in Antisocial Conduct' (1973) 3 *Journal of Abnormal Psychology* 476, 477.

<sup>95</sup> *ibid.*

<sup>96</sup> *ibid.* In a manner that would certainly fail any ethical approval in present days, the experimenter made use of class schedules that had been provided by the participants before embarking on the study. With this information, they proceeded to wait around classroom to approach students as if they had accidentally bumped into each other.

<sup>97</sup> *ibid* 479.

hypothesise that whether a person engages in antisocial acts depends more on their moral position, e.g. their attitudes towards drugs, and potentially on the hypnotist's exerted influence over the subject.<sup>98</sup>

For the current analysis, the experiment by Coe and others is relevant in showing that not only does hypnosis not compel all participants to commit an offence, but out of those who do, it is highly likely that they would have assisted the experimenter regardless of the hypnotic induction. Together with the studies discussed so far, this evidence supports a finding of hypnotic movement as voluntary under the proposed model of 'sufficient' control. In addition, such evidence is also relevant as it contradicts the assumptions upon which the law on hypnotic movement operates currently. This is because, at the very least, it casts substantial doubt on the blanket categorisation of hypnotic movement as involuntary. For instance, even if one took a finding that 50% of individuals may not be able to resist a suggestion, as per a literal and non-sceptical reading of Levitt and others (contrast Coe and others where the motivations are clearer), this would still challenge courts' and law-makers' rationalisation of hypnotic movements as involuntary. Considering that in *Coley*, the Court of Appeal adopted the strictest approach to date, limiting involuntariness solely to those cases in which control had been *completely* lost, it is surprising that the court cited hypnosis as an example of involuntary movement. This is even more so considering that the past few decades have seen a consistent restriction of the application of the 'defence', reducing the doctrine to situations in which the defendant would effectively have to be unconscious or moving due to spasms or reflexes.<sup>99</sup> This stems from the scepticism judges manifest when faced with claims of automatism, which can be attributed primarily to the categorisation of automatism as a defence, as it puts the onus on the defendant to prove that the movement had been voluntary. Surprisingly, the same approach is not applied in the context of hypnosis, even though the movements performed whilst hypnotised would fall into a much more ambiguous category than some of those addressed by the courts.

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<sup>98</sup> *ibid* 480.

<sup>99</sup> See Chapter 1.1.b.

### **3. The Relevance of Hypnotisability**

The literature reviewed in the present case study, particularly that surrounding control and the extent to which individuals retain it during hypnosis, has often referenced subjects' high level of hypnotisability. This is because the capacity of the general population to respond to hypnotic inductions varies between extremes and can be influenced by aspects such as age, inherited abilities, expectations etc.<sup>100</sup> Given such differences in population, it is natural that research on hypnosis would also address the impact of hypnotisability on responses to suggestions, including the extent to which highly hypnotisable subjects differ in their ability to retain executive control over their movements.

However, for present purposes, it is worth noting that the case study need not engage with this aspect in further detail. Had the analysis identified compelling evidence for the claim that hypnosis does impact subjects' control, then it would have been problematic for the investigation to solely rely on those studies. The reason is that the evidence could not have been extrapolated to the average person claiming loss of voluntariness due to hypnosis, in the sense that some people may nevertheless retain control during hypnosis. However, considering that the chapter supports the argument that even highly hypnotisable individuals retain their capacity to control their movements, it is argued that, naturally, lower levels of hypnotisability would not contradict a finding of continuing control during hypnosis amongst higher levels.

### **4. General Implications for the Current Legal Framework**

Whilst the effect of hypnosis on consciousness is not directly relevant to the issue of the voluntariness, the legal relevance of hypnosis involving alterations to consciousness may impact considerations other than voluntariness. For example, the theories and studies relating to subjects potentially losing awareness of moving or intending to move their bodies, or even experiencing a

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<sup>100</sup> See for example James E Horton and Helen J Crawford, 'Neurophysiological and Genetic Determinants of High Hypnotizability' in Michael Heap, Richard J Brown and David A Oakley (eds), *The Highly Hypnotizable Person: Theoretical, Experimental, and Clinical Issues* (Routledge 2004)133.

feeling of losing control may impact *mens rea* assessments or the application of defences. For instance, despite the initial awareness and intention to follow instructions, ‘cold control’ (and the theories of Hilgard, Spanos, and Lynn) acknowledges that a subject may lose awareness of their intentions to perform the hypnotic movements.<sup>101</sup> This raises questions regarding a subject’s capacity to comprehend the circumstances or foresee the consequences of an action. However, it is worth mentioning that even though technically, one may claim that a loss of being conscious (of an intention or other mental state or movement) due to hypnosis prevented them from appreciating what they were doing, it is highly unlikely that this would happen in practice. Following studies such as that by Coe and others,<sup>102</sup> it appears that even when hypnotised, subjects will not act against their character or moral code. More likely is that a person may use hypnosis as a pretext to act out behaviours that one would perform regardless.<sup>103</sup> To an extent, it could be argued that hypnosis shares some similarities with alcohol. For instance, as much as alcohol may make one lose their inhibitions, which some may say hypnosis could potentially do, this does not mean that a person acts out of character. For instance, much like Dutch courage in criminal law, i.e. drinking in order to give oneself courage to commit an offence,<sup>104</sup> hypnosis would not bar an attribution of blame in this respect.<sup>105</sup>

Equally, the evidence explored so far challenges assumptions made by courts in respect of the current application of the automatism ‘defence’. Within case law, there are frequent references to a lack of consciousness or control as a marker of automatism.<sup>106</sup> Drawing from the theories and

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<sup>101</sup> Dienes and Perner (n 48) 303.

<sup>102</sup> Coe and others (n 93).

<sup>103</sup> The empirical evidence suggests that subjects undergoing hypnosis do not act out of character and are still able to process the instructions given by the hypnotist. See for example Michael Nash and Robert Nadon, ‘On the impact of the empirical evidence to the legal sphere see James J Lippard, ‘Hypnosis, Voluntary Action, and the Law’ (2009) SSRN 1867824, < <https://ssrn.com/abstract=1867824> > 5 accessed 02 September 2020; and H B Gibson, ‘Can Hypnosis Compel People to Commit Harmful, Immoral and Criminal Acts?: A Review of the Literature’ (1991) 8 Contemporary Hypnosis 129.

<sup>104</sup> *Attorney General for Northern Ireland v Gallagher* [1963] AC 349.

<sup>105</sup> See Claire Finkelstein, ‘Involuntary Crimes, Voluntarily Committed’ in Stephen Shute and Andrew Simister (eds), *Criminal Theory: Doctrines of the General Part* (OUP 2005) 169. However, one could argue that, when it comes to unintentional or unforeseeable offences, while the dangers of drinking alcohol are documented and applying prior fault rules is justified, the same could not be said about those who offend whilst hypnotised. In other words, while one could foresee that drinking might incapacitate them or make them lose inhibitions, the same cannot be said of hypnosis.

<sup>106</sup> See Chapter 2, particularly sections 5 and 6.

studies explored in this chapter, it is apparent that a blanket rationalisation of hypnotic movement as involuntary is inappropriate, even under models that focused on the awareness or intention to move. Whilst the perception of involuntariness is a commonly acknowledged effect of hypnosis, as accepted across all theories and research of hypnosis, this does not automatically mean that it accompanies every hypnotic experience. For instance, the study by Lynn and others, sought to show that expectations on the subjects' part that their movements will be involuntary are a factor in individuals interpreting them as such.<sup>107</sup> As much as some subjects may effectively lose awareness of their bodily movements (if the suggestion calls for it, such as automatic writing), the fact that some do not do so suggests that courts should not blanketly categorise hypnotic movement as involuntary, even if rationalising voluntariness by way of consciousness.

Likewise, in terms of the intentionality of movement in hypnosis, the fact that one is unaware of intentions to move does not mean that the movement is not intentional, at least in the way courts have referred to goal-directed movement in the context of automatism in driving offences.<sup>108</sup> Here, we could contrast movement like the one addressed in *Broome v Perkins*,<sup>109</sup> which involved the defendant driving erratically due to hypoglycaemia, with the one in *Book*,<sup>110</sup> where the defendant claimed that he had experienced 'total amnesia' and entered 'a deep trance' whilst driving erratically, still under the hypnotic suggestion.<sup>111</sup> Whilst in the former case, the court found that the movement had been voluntary due to the defendant moving in a goal-directed manner, the latter was found to be involuntary, despite a similarly goal-directed movement.<sup>112</sup> This is not to say that goal-directed movement is relevant for a finding of voluntariness according to the control model promoted in the present thesis. However, it is worth noting that even under the current approach, if one followed the case law and categorised as voluntary those movements

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<sup>107</sup> Lynn and others (n 69) 300.

<sup>108</sup> See Chapter 1.1.b, page 12, and Chapter 2, Sections 2 and 9. For further information on intentionality in hypnosis, see Dienes and Perner (n 48).

<sup>109</sup> *Broome v Perkins* (1987) 85 Cr App R 321.

<sup>110</sup> *R v Book* [1999] ABPC 149.

<sup>111</sup> *ibid* [12].

<sup>112</sup> It is worth noting that the case of *Book* was decided in Canada, as opposed to England and Wales. However, judging from *Coley*, the same approach would be taken by courts in England and Wales if faced with the issue.

appearing to be goal-directed, or performed ‘with skill’,<sup>113</sup> this would be hard to reconcile with the courts’ categorisation of hypnotic movement as involuntary.

## 5. Implications for the Proposed Model of Voluntariness

So far, the present chapter has sought to identify whether people who undergo hypnosis are able to retain sufficient control over their bodily movements to the effect that they can move otherwise, in line with the proposed model of voluntariness. Despite the varied conceptualisations of hypnosis and the continued debate surrounding its nature, the empirical evidence is consistent in supporting the argument that subjects can move alternatively. In other words, control is retained during hypnosis. Whether hypnosis can be associated with altered states of consciousness, or simply relates to behavioural changes designed to fulfil the role of a good hypnotic responder, those who undergo hypnosis do not experience any impairment to control functions, as they retain control over their bodily movements. Even in the case of the most hypnotisable individuals, the perception of involuntariness does not entail an actual lack of voluntariness. For example, subjects can even resist the suggestions of the hypnotist when this suits the context, such as when, prior to being hypnotised, they are instructed that a successful response to suggestions entails resisting to them. From a legal standpoint, this capacity to move otherwise challenges assumptions made by courts as to the involuntariness of hypnotic movements. When a sceptical approach has been consistently taken as to different types of allegedly involuntary movement such as that under hypoglycaemia, the categorisation of hypnotic movements as involuntary is even more surprising.

The contradictory approach that courts adopt should not be viewed in light of hypnosis research only. Certainly, empirical evidence surrounding the nature of hypnosis, as well as a better understanding from the public surrounding the meaning of it, should act as a first indication that hypnotic movements do not fit within categories of movements as straightforward as spasms or reflexes. At the same time, the present case study should serve as a further reminder of why it is

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<sup>113</sup> *Hill v Baxter* [1958] 1 QB 277, 287 (Pearson J).

important to implement a clear definition of voluntariness. Having decided that a control model is best suited to reflecting the essence of voluntary movement in law, it is then easier to assess different types of movements against this yardstick, be it hypnotic movements, hypoglycaemia etc. Adopting a consistent approach across types of movements would ensure a fair application of the law and remove the need for arbitrary categorisations based on stereotypes and myths.

At the same time, the fact that no impairments to control mechanisms occur during hypnosis does not bring us any closer to resolving the fundamental limitation to adopting a ‘sufficient control’ model of voluntariness. This is because the evidence points at a full retention of control during hypnosis, thereby removing ambiguity in terms of the threshold at which any potential impairment is sufficient to render a person unable to move otherwise. Equally, even in the case of Woody and Bowers’ model of ‘dissociated control’, which did argue that alterations to control occurred during hypnosis, the evidence is inconclusive in terms of the relevant threshold at which control is lost. Whilst this model would have hypnosis rendering individuals unable to engage in new or complex movements, this does not mean that all routine or habitual movement performed whilst hypnotised lacks control.<sup>114</sup> As such, the discussion so far does not necessarily help fill in the gap regarding the appropriate threshold for one losing sufficient control.

Likewise, it is worth acknowledging a reasonable counterargument to the categorisation of hypnotised individuals as voluntary, specifically in terms of the fairness of doing so in the absence of a perception of self-control. This is a valid concern, which could easily be extrapolated to the control model overall, considering the relinquishing of the role of consciousness or intention within the voluntariness requirement. However, as argued throughout the thesis, the legal requirement operates as a prerequisite for an agent to be subjected to relevant *actus reus* or *mens rea* assessments and is not concerned with a person’s ability to assess circumstances or potential effects. That is, whilst fundamental to criminalising individuals for harmful actions, it is only once a person has been attributed with a particular bodily movement and been deemed voluntary

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<sup>114</sup> Following the discussion in Chapter 4.3, habitual movements do not lack control and can be described as voluntary.

that the law should then move on to assess the circumstances or effects of the movement and the accompanying mental state. When a subject acts under a state of hypnosis, a lack of awareness or intention on the agent's behalf could well produce evidence for a lack of *mens rea*, thus allowing the criminal law to make adjustments and avoid a potential injustice being committed. However, for a finding of voluntariness, which is the focus of the present thesis, it is argued that this aspect does not pose a challenge. The same would also apply to claims that a person might have been induced to commit a crime, which would not pose a challenge to a finding of voluntariness, but simply provide an excuse of duress (an authority pressing one to perform an act can be influential quite apart from whether the situation is hypnotic).

## 6. Conclusion

The present chapter has analysed evidence surrounding the extent to which individuals undergoing hypnosis retain control over their bodily movements, in order to apply the control model of voluntariness promoted in the present thesis to hypnotic movement. Whilst the case study is limited in its ability to produce a comprehensive analysis of all existing theories and empirical evidence on hypnosis, it is argued that there is sufficient support for a categorisation of hypnotic movements as voluntary. Specifically, by addressing evidence from competing factions of hypnosis research, it is apparent that despite fundamental distinctions in the rationalisation of hypnosis, there is a consensus surrounding the fact that the process does not impair control functions, with subjects fully retaining their ability to move otherwise. Therefore, the evidence strongly suggests that, following the proposed voluntariness model based on exercising sufficient bodily control to move otherwise, hypnotic movements should be legally categorised as voluntary.

Equally, the rejection of hypnotic movements as involuntary challenges the approach taken by courts and law-making bodies in multiple common law jurisdictions, i.e. that of describing them as involuntary. This could be attributed to wider societal preconceptions surrounding the nature

of hypnosis but may also potentially rest on judges' use of consciousness as a way to describe the voluntariness requirement. However, as analysed throughout the chapter, hypnosis does not lead to a loss of control and should not be categorised as involuntary. Moreover, regardless of the effects on consciousness and perception, in the unlikely event that someone would be hypnotically induced to commit a crime or would lose awareness over their bodily movements, this would not matter for an assessment of voluntariness. At best, such factors might contribute to provide an excuse for the criminal behaviour.

## CHAPTER 6

### CONCLUSION

#### 1. Significance of Study

The present thesis began with the following question: ‘How should voluntariness be defined in the context of criminal responsibility?’. Starting from the premise that the way in which the law has addressed the issue of voluntariness has been conceptually and practically problematic, the analysis has focused on proposing a standard of voluntariness that should be applied first in all assessments of criminal responsibility. That is, rather than disengaging from the issue or arguing that ‘the answer is far from simple’,<sup>1</sup> the thesis has addressed the complexities of the notion of voluntariness and has sought to develop a working definition of voluntariness in law. This definition would precede any *actus reus* and *mens rea* analysis relevant to each offence, as well as potential defence considerations. In this way, this study has argued against tackling issues relating to defendants’ voluntariness using doctrines such as automatism or insanity. Instead, any assessment should start by asking whether the defendant was voluntary to begin with, before being attributed with an offence. This approach would reflect the essential role of voluntariness as the minimum requirement of criminal responsibility, promoting the autonomy and agency of the actor. Moreover, it would ensure consistency within criminal law and enhance legal certainty. Drawing from philosophical theories of action and neuroscientific research, the thesis has identified bodily movements, as opposed to wider consequences or circumstances, as the target of the requirement of voluntariness. Exploring alternative conceptualisations, it has been argued that the most suitable standard of voluntariness would be one framed in terms of bodily control, that is, as **the exercise of sufficient bodily control to the effect that one can move otherwise**.

This thesis supports the view that the doctrine of automatism should be abolished, with the law instead introducing a definition of voluntariness based on control. However, the study does

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<sup>1</sup> Ryan [1967] HCA 2, [18] (Windeyer J).

not claim to promote a model that is perfect in every respect, as normative and descriptive challenges remain. At the same time, the analysis is significant in producing an original definition of voluntariness that does not relate the concept back to examples or descriptions of involuntary, rather than voluntary movement. Instead of arguing that a spasm, reflex, etc. is *not* voluntary, the thesis has produced a comprehensive definition applicable to any movement or lack of movement<sup>2</sup> that the criminal law should take interest in. In this respect, the thesis has sought to address the problematic issues prompted by the voluntariness requirement's lack of legal definition. The current absence of conceptualisation within the criminal legal framework risks negatively impacting legal certainty and fairness, with a potential for over-criminalisation in the absence of adequately enshrined standards, applicable to all categories of cases. Respect for agency and autonomy should take precedence over any apprehension from courts that defendants may abuse the system or introduce 'imaginary' claims. Such concerns do not warrant addressing the issue of voluntariness under the remit of excusatory defences, when what is lacking is a definitional element.

Beyond the legal significance of the study, which is that of promoting clarity and consistency within the framework, the contribution of the study also extends to methodological considerations. Specifically, the analysis has sought to connect traditional methods of legal research with theoretical insights, methods and techniques from the disciplines of philosophy and neuroscience. Integrating elements from the philosophy of action and cognitive neuroscience, a primary objective has been that of positioning the recommended model on a strong theoretical and empirical footing. That is, broadening the scope of the analysis has allowed for the issue of voluntariness to be explored within a wider conceptual framework, engaging with combinations of disciplinary perspectives, thus enabling the better identification of the most appropriate answer to the primary research question. Such an extension of the analysis has not only facilitated the development of a strong argument, but has also served to showcase the advantages and impact of conducting multi and interdisciplinary legal research. For instance, exploring multiple

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<sup>2</sup> In the case of omissions.

conceptualisations of action within philosophy has opened up questions which the criminal law should engage with further. Such questions relate to the basis for criminal responsibility, for instance, whether it would be enough to criminalise people on the basis of their impression of freedom as opposed to their actual freedom, the challenge of determinism for the concept of agent causation, and so on.

Engaging with empirical research from the field of cognitive neuroscience, the thesis has also contributed to the development of research within the growing field of ‘neurolaw’ research, which explores the effects of discoveries in neuroscience on legal rules.<sup>3</sup> Certain limitations apply in respect to any attempt to incorporate neuroscience into the law, such as the inability to conclusively rely on correlations, for instance in linking a cognitive process to a certain behavioural output.<sup>4</sup> However, for the purposes of testing assumptions and gaining insight into those faculties or capacities which are not visible to the naked eye, but nevertheless essential in initiating and regulating movement, neuroscientific evidence has proved significant. The level of voluntariness and control that relates to movement has been fundamental for both disciplines of law and neuroscience, for instance in terms of ascribing criminal responsibility and understanding the biological mechanisms underlying human action. Analysing existing research on the nature of voluntary movement and the way in which we restrain or inhibit our movements has added an important empirical layer to the legal investigation, primarily in terms of our underlying cognition.

Equally, developing a case study based on hypnosis theory and studies has further contributed to showcasing the potential for incorporating research from disciplines other than law. This has been the case particularly in the context of the lack of engagement with the nature of hypnotic movements within legal literature. Exploring the status of such movements from this external perspective has provided an additional empirical footing to legal assumptions, filling a gap in knowledge, and developing further neurolaw research. Most importantly, relying on existing

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<sup>3</sup> For further information on neurolaw research, see Arian Petoft, ‘Neurolaw: A Brief Introduction’ (2015) 14 *Iran J Neurol* 53.

<sup>4</sup> For further detail, see Section 4 of this chapter.

hypnosis research has facilitated the application of the proposed model within a practical setting, fully exploring the implications and benefits of implementing the recommended definition. Having addressed the significance of the present thesis, it is important to explore the practical implications of the proposed model, before summarising the findings and acknowledging their limitations, as well as making recommendations to law-making bodies.

## **2. Practical Implications of the Proposed Model**

### **a. The Impact of a Statutory Definition of Voluntariness on the Existing Case Law**

The present thesis has focused on developing a statutory definition of voluntariness that should be applied as the first stage in any criminal assessment, as a pre-condition of criminal responsibility. In this respect, the thesis argues for the abolition of the automatism and insanity (as it relates to voluntariness) ‘defences’ and the introduction of a legal definition of voluntariness, to be applied in criminal responsibility assessments, as an element of an offence. As emphasised throughout the analysis, the classification of (in)sane automatism as a ‘defence’ is conceptually inappropriate, as it implies that the elements of an offence have been fulfilled, but that the defendant should be excused for a seeming lack of capacity. However, a lack of voluntariness goes beyond mere impairments to one’s capacity to act rationally or to understand the circumstances or consequences of their actions. Instead, it denies a basic element of an offence and bars any attribution from occurring in the first place. In the case of involuntariness, the agent, ‘the only intelligible object of act attribution’, is dropped out of the assessment and the resulting harm is categorised as caused by the specific type of involuntariness, such as hypo/hyperglycaemia, a seizure etc., rather than the agent themselves.<sup>5</sup> As criminal responsibility is attached to the relevant agent causing a particular harm or set of circumstances, then no liability can arise. Therefore, in contrast with excusatory defences, where the defendant generally admits

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<sup>5</sup> Jeffrie G Murphy, ‘Involuntary Acts and Criminal Liability’ (1971) 81 *Ethics* 332, 341. See also Ian P Farrell and Justin F Marceau, ‘Taking Voluntariness Seriously’ (2013) *BCLRev* 1545, 1569.

that ‘they got it wrong’ and that they were unable to exercise the capacity for ‘rational deliberation’,<sup>6</sup> a lack of voluntariness shows that there is nothing to *get wrong* to begin with, for there is no (lack of) movement to attribute to the defendant.

While the doctrines of automatism and insanity would be abolished, with a statutory definition of voluntariness being introduced to occupy the role that these ‘defences’ had had, one could argue that it may still be possible to rely on existing case law. That is, in order to interpret the statutory definition of voluntariness based on the ability to move otherwise, it may be possible to rely on existing case law associating involuntariness with a lack of control. For instance, courts could resort to guidance provided in cases such as *Coley*, which defined automatism as a ‘complete destruction of voluntary control’.<sup>7</sup> This would be similar to the approach taken in relation to other statutory definitions, such as consent. While the definition of consent is enshrined in s.74 of the Sexual Offences Act 2003 (SOA),<sup>8</sup> pre-SOA law can still prove persuasive when it comes to exploring the meaning of concepts such as ‘freedom’, ‘choice’ and ‘capacity’.<sup>9</sup> However, this is not the approach that should be taken in the case of a statutory definition of voluntariness. This is because, under the proposed model, it would be possible for a person to lose voluntariness even where control had not been completely destroyed, in contradiction with *Coley*. Moreover, the primary justification for developing a definition of voluntariness has been to produce a uniform standard and address issues caused by existing case law. These range from the varying approach taken depending on trigger leading to involuntariness and the lack of clarification as to the meaning and significance of voluntariness, to the undue emphasis on the moral blameworthiness of the defendant. To allow courts to rely on existing case law to interpret the definition would go against the purpose of introducing a statutory definition. Naturally, while clarity and consistency is to be sought, it is acknowledged that the proposed definition runs the risk of being incomplete,

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<sup>6</sup> R A Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law* (Hart Publishing 2009) 287.

<sup>7</sup> *R v Coley* [2013] EWCA Crim 233.

<sup>8</sup> ‘For the purposes of this Part, a person consents if he agrees by choice, and has the freedom and capacity to make that choice.’

<sup>9</sup>

like any statutory instrument,<sup>10</sup> thus requiring courts to develop a body of law that interprets the said legislation. For instance, the thesis has identified a number of limitations surrounding the proposed definition, such as the fact that the threshold at which one can no longer exercise sufficient control is unique to every individual, thus leading to potential issues in ascertaining voluntariness.<sup>11</sup> However, it is argued that any interpretation of the definition should be carried out independently of previous case law, but instead look to align with the meaning of voluntariness, as explored in the present study.<sup>12</sup>

### **b. The Impact of a Statutory Definition of Voluntariness on the Burden of Proof**

From an evidential perspective, it could be argued that the most appropriate way of establishing voluntariness under the proposed statutory definition would be to demand that the prosecution prove it beyond a reasonable doubt in any criminal trial. In other words, given that voluntariness is a precondition to criminal responsibility, it should always be the prosecution's task to demonstrate it. To do otherwise and require the defendant to raise the issue, even if only to satisfy an evidential burden, would mean that, once again, the focus would be placed on the involuntariness of the defendant, rather than their voluntariness. Moreover, it could invite policy considerations into the assessment, continuing to place an emphasis on the defendant's moral culpability or the need to defend against false claims.<sup>13</sup>

At the same time, from a practical standpoint, putting the onus on the prosecution to establish voluntariness in every criminal responsibility assessment may be too burdensome and lead to a

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<sup>10</sup> Eben Moglen and Richard J Pierce, Jr., 'Sunstein's New Canons: Choosing the Fictions of Statutory Interpretation' (1990) 57 *The University of Chicago Law Review* 1203, 1205: 'incompleteness is an essential feature of any system of statutory construction'.

<sup>11</sup> See Chapter 4.

<sup>12</sup> Explanatory Notes would also assist courts with interpreting the statute.

<sup>13</sup> For further information on evidential rules and the need to protect against false claims, see Chapter 1.1.b. Naturally, prior fault would have to be considered, but not in the decision as to whether the defendant was voluntary or not. Such assessments would take place only once it is established that the defendant lacked voluntariness.

disproportionately high impact on the prosecution's resources. In this context, it is worth briefly considering issues of evidence and proof attached to voluntariness and the way in which the statutory definition would be applied in practice. While the present thesis has focused primarily on developing a definition of voluntariness, rather than on the operation of the definition, this aspect should be explored, in light of the present study's recommendation to abolish the automatism and insanity (as it relates to voluntariness) rules.

Under the current rules, the defendant bears an evidential burden to raise the issue of involuntariness in cases of automatism, and a legal burden to prove involuntariness on the balance of probabilities, in cases of insanity.<sup>14</sup> Practically, asking the defendant to produce 'some' evidence as to their involuntariness is not necessarily contentious,<sup>15</sup> as long as it is acknowledged that the ultimate burden of proving voluntariness rests of the prosecution. This would make it more feasible and efficient for prosecutions to take place, given that, in the vast majority of cases, it can reasonably be inferred that the defendant had the physical ability to move otherwise. However, such a burden should be imposed in relation to a lack of voluntariness as a definitional element, as opposed to a claim of automatism, in light of the 'defence' being abolished. This would remove existing concerns surrounding the co-existence of the requirement of voluntariness and the 'defence' of automatism, including potential issues regarding the prosecution having to prove different levels of voluntariness according to the claim in question.<sup>16</sup> Compared to the current automatism and insanity rules, this approach would ensure that the movement in question is assessed against a uniform standard of voluntariness, irrespective of the trigger leading to a potential lack of voluntariness, which would contribute to legal consistency.

Equally, in contrast with the current burden of proof of insanity on the defendant, it is argued that there should be no legal burden of proof placed on defendants, at least where this concerns the

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<sup>14</sup> For further information see Chapter 1.1.b.

<sup>15</sup> According to Allen, Taylor and Nairs, evidential burdens are seen as rules of '*common sense*', according to which 'there must be *some* evidence in existence for a particular issue to become worthy of consideration by a jury or other tribunal of fact' (emphasis in text) See Christopher Allen, Chris Taylor, and Janice Nairns, *Practical Guide to Evidence* (5<sup>th</sup> edn, Routledge 2016) 142.

<sup>16</sup> For further information see Chapter 1.1.b.

issue of voluntariness. The fact that defendants are presently required to prove, albeit on the balance of probabilities, that they were ‘insane’, despite the absence of voluntariness, is inappropriate. This is because it should be up to the prosecution to prove the elements of the offence, in line with the presumption of innocence.<sup>17</sup> In as much as a claim of insanity concerns a lack of voluntariness, there should be no expectation on the defendant to prove a definitional element of an offence. Whether someone was not able to tell right from wrong, to understand their actions, or to form rational decisions goes beyond satisfying the elements of an offence. It implies that the offence can be attributed to the defendant, but that it may nevertheless not be just to criminalise that person or to cast blame upon them. In contrast, when it comes to voluntariness, it should not be up to the defendant to prove their lack of ability to move otherwise, but for the prosecution to show that defendant moved voluntarily.

In this context, the thesis acknowledges that, while an evidential burden could be imposed on the defendant,<sup>18</sup> the prosecution should ultimately bear a legal burden of proving voluntariness as an element of the offence, applying the proposed definition. That is, once the defence submits evidence of a potential impairment to control mechanisms, which a judge may deem worthy of consideration by the jury, it should be up to the prosecution to establish that the defendant had moved voluntarily. Such an approach may alleviate some concerns surrounding ‘false claims’, while still reducing the potential for over-criminalisation, given the application of a consistent standard that should be applied irrespective of the moral culpability of the defendant. Moreover, it should be noted that, in contrast with the existing rules on automatism and insanity, the presumption to be rebutted should be one of voluntariness, as opposed to one of mental capacity

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<sup>17</sup> The present discussion relates primarily to insane automatism, as opposed to insanity as a whole, for insanity also applies to the category of cases in which defendants were voluntary and committed the *actus reus* and *mens rea* of the offence, but should be excused to their condition. However, criticism of the reverse burden of proof could be extended to the entirety of the insanity rules, primarily in light of the presumption of innocence. See Chapter 1.1.b.

<sup>18</sup> The Law Commission has proposed an ‘elevated’ evidential burden of proof in its reformulated defence of ‘not criminally responsible by reason of recognised medical condition’, according to which ‘the accused must adduce evidence from two experts’, with the prosecution being required to disprove the defence one raised. This thesis argues against this approach, considering that it would put a burden akin to that of insanity on the defendant. This would go against the presumption of innocence and the requirement that the prosecution prove all element of an offence. See law Commission (n ) para 8.50.

or sanity.<sup>19</sup> While considerations surrounding one's capacity to tell right from wrong or to understand what they are doing are relevant, these should relate to findings of *mens rea* or the application of a defence, rather than a finding of voluntariness. Since the statutory definition proposed in this thesis is based around one's physical ability to move otherwise or refrain from moving, such associations should be avoided and the presumption to be applied should be one of voluntariness.

At the same time, it should be acknowledged that, even with a presumption of voluntariness in place, as well as an evidential burden on the defendant, the prosecution may be faced with an onerous task in proving the voluntariness of the defendant. One such example relates to those borderline cases in which movements may appear to be executed freely, but could not actually have been produced any differently. This could be a person having a hypoglycaemia fit behind the wheel, like the defendant in *Broome v Perkins*.<sup>20</sup> This is a limitation that has been acknowledged in this study, for the dividing line between voluntariness and involuntariness may well differ from person to person.<sup>21</sup> Moreover, where such conditions are transient, it may not be possible to definitively show whether a person was voluntary or not at a previous point in time.<sup>22</sup> Therefore, it may not always be immediately clear whether one had lost the ability to move otherwise or not. However, it is argued that some of the limitations identified would be alleviated by consulting expert evidence surrounding impairments to control mechanisms.<sup>23</sup> Given the focus of the requirement of voluntariness on the physical ability to move otherwise, evidence sought from expert witnesses would not need to relate solely to the impact of certain medical conditions.

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<sup>19</sup> See Chapter 1.1.b.

<sup>20</sup> *Broome v Perkins* (1987) 85 Cr App R 321. Here, the defendant had been driving erratically, but was found not to be automatic as they were still able to move in a 'goal-directed' manner.

<sup>21</sup> See Chapter 4.2.b, page 139.

<sup>22</sup> However, this limitation is already present within the current framework, considering that under automatism and insanity rules, it is equally difficult to ascertain whether the defendant had been involuntary at the time of the alleged offence. In this respect, the proposed model is not any more limited than the current one.

<sup>23</sup> For a history of the role of expert knowledge in criminal law, as well as the conflict between such evidence and 'lay' knowledge, see Arlie Loughnan and Tony Ward, 'Emergent Authority and Expert Knowledge: Psychiatry and Criminal Responsibility in the UK' (2014) 37 *International Journal of Law and Psychiatry* 25; and Jennifer Mnookin, 'Idealizing Science and Demonizing Experts: An Intellectual History of Expert Evidence' (2007) 52 *Villanova Law Review* 101.

External triggers that have currently been addressed under the rules of ‘sane’ automatism could also be subjected to scrutiny in respect to their ability to impair control mechanisms.<sup>24</sup> Moreover, in contrast to present rules, expert knowledge may be more informative given that the proposed model relies solely on the physical ability to move otherwise, which is objectively easier to ascertain compared to impairments to consciousness, ability to reason etc.

### **c. The Use of Disposal Powers in Cases of Involuntary Movement**

Under the current framework, defendants suffering from involuntariness due to a physical or mental condition are subjected to the insanity rules, with restrictions being imposed on such defendants, in accordance with the level of danger they may pose to society.<sup>25</sup> This thesis argues that the implementation of the proposed definition of voluntariness would abolish the insanity rules as they relate to an absence of voluntariness. In turn, some may argue that the public would be put at risk, given that the abolition of the rules would affect the application of disposal powers that would normally follow a verdict of not guilty by reason of insanity.<sup>26</sup> However, this need not be the case. The rules on insanity, as they currently stand, have already been subjected to extensive criticism within the legal literature, both for their outdated language and illogical distinctions.<sup>27</sup> That is, regardless of the application of the proposed definition, the insanity rules are already in urgent need of revision and modernisation. In this respect, the present analysis does not challenge the Law Commission’s proposal to reform the insanity rules. In as much as the issue

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<sup>24</sup> The oft-cited example is that of a swarm of bees entering one’s car and causing them to swerve whilst driving. See *Kay v Butterworth* (1945) 61 TLR 452.

<sup>25</sup> See Criminal Procedure (Insanity) Act 1964, s.5. Such restrictions range from an absolute discharge to being detained in a hospital.

<sup>26</sup> Concern with dangerousness is a long-standing theme within the doctrine of insanity. According to Loughnan, the construction of those pleading insanity as dangerous has been ‘a driving force for most of the developments regarding the insanity doctrine’, from the creation of disposal powers to the reliance on expert witnesses and the separation between automatism and insanity. See Loughnan (n 7) 104; and Arlie Loughnan, ‘Mental Incapacity Doctrines in Criminal Law’ (2012) 15 *New Criminal Law Review* 1, 18; and Arlie Loughnan, “‘Manifest Madness’: Towards a New Understanding of the Insanity Defence’ (2007) 70 *MLR* 379, 399.

<sup>27</sup> For a comprehensive analysis of the issues surrounding the insanity rules, see Law Commission (n 12) 1.30 – 1.69. See also R D Mackay, *Mental Condition Defences in the Criminal Law* (OUP 1995) Chapter 2; and R D Mackay and Reuber M, ‘Epilepsy and the Defence of Insanity – Time for Change?’ [2007] *CrimLR* 782.

of insanity arises where a defendant moved voluntarily, but could not fully appreciate the circumstances or consequences of their movements due to a medical condition, be it physical or mental, the thesis supports a reformed defence of ‘not criminally responsible by reason of recognised medical condition’.<sup>28</sup> In such instances, disposal powers already available to courts under present rules would continue to apply.<sup>29</sup> At the same time, this analysis disagrees with the application of such a ‘defence’ in cases where a medical condition leads to involuntariness, as opposed to a misappreciation of one’s surrounding, consequences of actions etc.<sup>30</sup> This is because, with voluntariness, there are no elements of the offence that have been committed to begin with and no attribution should attach to the defendant.

Nonetheless, from a public protection standpoint, whether a particular harmful event or set of circumstances was caused by an involuntary movement may be considered immaterial if the public is put at risk. As such, it would be expected that the disposal powers currently applicable in the case of insanity would continue to be available where a medical condition causes involuntariness. Such powers include an absolute discharge, i.e. release, a supervision order or a hospital order.<sup>31</sup> The thesis does not challenge such an approach and supports the view that disposal powers would also be available where the requirement of voluntariness is not met, as opposed to an outright acquittal. In this respect, an amendment to s. 5(1) of the Criminal Procedure (Insanity) Act 1964 should be made to extend the application of disposal powers to those cases in

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<sup>28</sup> For a full discussion on how the defence would be implemented, See Law Commission (n 12) Chapter 3. One scenario in which a non-medical condition may lead to similar effects is hypnosis, as discussed in Chapter 4 of this thesis. Here, it could be argued that while voluntary, such movements are not triggered by a medical condition the defendant may be excluded from the defence. However, as stated by the Law Commission, what will be regarded as a ‘recognised medical condition’ is a question of law, rather than medicine. Such a concept is ‘a term of art’ which must be interpreted by the court. While intoxication and personality disorders have been excluded by the Commission, it is argued that hypnosis leading to impairments to consciousness could be included within the remit of the proposed defence. As noted in previous chapter however, it is extremely unlikely that hypnotised individuals will ever act against their moral character and would commit an offence regardless of whether they are hypnotised. See Law Commission (n 12) para 1.88; and Chapter 4.4 of this thesis.

<sup>29</sup> Law Commission (n 12) para 3.23.

<sup>30</sup> The same argument can be made in relation to a lack of *mens rea* and not just a lack of voluntariness. Guidance provided by the Crime Prosecution Service has made clear that insanity does not signify an absence of *mens rea*. See Crown Prosecution Service, *Mental Health Conditions and Disorders: Draft Prosecution Guidance* (March 2019). Available at: <https://www.cps.gov.uk/publication/mental-health-conditions-and-disorders-draft-prosecution-guidance> (accessed 23.02.2021).

<sup>31</sup> Criminal Procedure (Insanity) Act 1964, s.5. For further information on the various disposals following the special verdict, see Law Commission (n 12) paras 4.144- 4.157.

which a person's lack of voluntariness is at risk of reoccurring.<sup>32</sup> However, what is important is that a clear distinction is made between a loss of voluntariness and an impairment to one's ability to act rationally, appreciate the wrongfulness of their behaviour etc. Whereas one reflects a missing element of an offence, the other excuses or exempts the defendant for an act that can be otherwise attributed to them.

Such an approach would also provide further reassurance that removing the existing distinction between internal and external triggers leading to involuntariness would not pose a risk to the wider society. Where the relevant impairment to control mechanisms is dangerous and/or is likely to reoccur, courts would be able to impose disposal powers, without the need to stretch legal concepts and categorise cases into either automatism or insanity. The possibility of imposing such powers would also allow for a more consistent application of the definition of voluntariness, for there would be no need to take policy considerations into account when the initial finding of voluntariness is made. Moreover, given oft-cited arguments relating to the need to protect against 'bogus claims',<sup>33</sup> it could be argued that the potential for disposal powers to be imposed may serve to prevent defendants from claiming that they had been involuntary at the time of the alleged offence.

#### **d. The Role of Prior Fault**

One important role to consider is that of prior fault and the blameworthiness of a defendant when they lack voluntariness, for courts often adjust the stringency of their approach to issues of voluntariness according to the perceived culpability of the defendant.<sup>34</sup> The inconsistency in approaches has contributed to much confusion surrounding the status and conceptualisation of voluntariness in law. This has been a primary reason behind promoting the application of the same

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<sup>32</sup> Currently, s. 5(1) states that disposal apply where '(a) a special verdict is returned that the accused is not guilty by reason of insanity; or (b) findings have been made that the accused is under a disability and that he did the act or made the omission charged against him.' It is argued that a lack of voluntariness should also be included in this section.

<sup>33</sup> Loughnan (n ) 163.

<sup>34</sup> See Chapter 2, Sections 4, 9, and 10, on trigger slips, dangerous and non-dangerous intoxicants.

definition of voluntariness in all criminal assessments. However, when it comes to prior fault, culpably causing the conditions for one's loss of voluntariness should nevertheless continue to play a part in the framework. Specifically, just as the rules of prior fault intoxication currently operate to construct liability in the absence of *mens rea*, the same can apply in the case of a missing element of voluntariness.

At the same time, it is worth highlighting the conceptual challenges that are currently present within the legal framework surrounding prior fault, in order to better emphasise how the proposed model should be applied where the defendant is to blame for their loss of voluntariness. Currently, there are a number of issues surrounding the application of prior fault automatism, which relate primarily to the requisite level of foresight from the defendant that a loss of voluntariness may ensue.<sup>35</sup> Whereas with alcohol or other dangerous drugs, it may be expected that the dangers of ingesting such substances are well known, this is not necessarily the case with non-dangerous drugs that may give rise to a loss of bodily control. Under the current rules of automatism, courts have not been sufficiently clear on the approach to take, referring to a requirement of both *objective* and *subjective* foresight. Following *Quick*, the prior fault rules would apply where the loss of voluntariness 'could have reasonably been foreseen as a result of either doing, or omitting to do *something*'.<sup>36</sup> Equally, following *Bailey*, it is only if there had been awareness of a potential risk, but the defendant had deliberately disregarded it, that prior fault rules would apply.<sup>37</sup> This problematic aspect of the law has been subjected to extensive criticism within the literature, including from the Law Commission in its report on automatism and insanity.<sup>38</sup> At the very least, a defendant who lacked voluntariness due to unforeseen effects of certain prescription drugs or medical conditions should not be placed in a worse position than those who consume alcohol or illegal drugs, the effects of which are widely known. In this respect, the analysis agrees that a

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<sup>35</sup> See Chapter 2.9-10.

<sup>36</sup> *R v Quick* [1973] QB 910, 922 (Lawton LJ).

<sup>37</sup> *R v Bailey* [1983] 1 WLR 760, 765 (Griffiths LJ). Here, Griffiths LJ highlighted that, in contrast with alcohol or drug

<sup>38</sup> Law Commission (n 12) paras 6. See also Law Commission, *Intoxication and Criminal Liability: Law Com No 314* (2009); and R D Mackay, 'Intoxication as a Factor in Automatism' [1982] CrimLR 146.

subjective level of foresight should be expected from defendants in relation to a potential impairment to bodily control mechanisms.

Nevertheless, implementing the proposed model does not necessarily alleviate existing issues with the current prior fault ‘automatism’ rules. This is because such issues have also been amplified by the debate as to whether the distinction between basic and specific intent offences made in prior fault intoxication is to be applied in prior fault involuntariness as well. That is, it is not clear whether the substitution can only happen in relation to basic intent offences, which generally require recklessness as a *mens rea* element, in contrast with specific intent offences, which primarily involve intention or knowledge.<sup>39</sup> As Mackay emphasises, if a defendant like *Quick* is prosecuted for a specific intent offence, they could be found at fault for not following their doctor’s instruction, whereas their ‘intoxicated counterpart’ would only be prosecuted for a crime of basic intent.<sup>40</sup> Naturally, a clearer and most likely fairer approach would be to limit prior fault involuntariness to basic intent offences as well.<sup>41</sup> At the very least, a culpable loss of voluntariness should not be used to construct the missing element of voluntariness in specific intent offences, with the requisite level of foresight of loss of voluntariness being a subjective one.

However, one scenario of prior fault involuntariness which is worth discussing briefly relates to cases in which the loss of voluntariness would be premeditated at T1 and instigated with a view to move involuntarily at T2 and achieve a particular set of circumstances or results. Take the following far-fetched example. A person may be aware that they become violent in their sleep

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<sup>39</sup> See *Lipman* [1970] 1 QB and *DPP v Majewski* [1977] AC 443 in relation to voluntary conduct and intoxication, respectively. The distinction has been extensively criticised for the lack of specificity and confusion caused as to what counts as a basic and specific intent offence.

<sup>40</sup> Mackay (n 37) 155. The defendant in *Quick* forgot to eat after taking insulin and subsequently experienced a hypoglycaemic episode behind the wheel. For further information, see Chapter 2.9.

<sup>41</sup> One may argue that the distinction between basic and specific intent offences should be abolished altogether, considering the confusion it can give rise to. This is particularly relevant with a loss of voluntariness, for what is lacking is not *mens rea* necessarily, but voluntariness, which is a separate concern that, the present thesis has argued, must precede any *actus reus* or *mens rea* assessments. See also Law Commission, *Intoxication and Criminal Liability: Law Com No 314* (2009) para 1.28: ‘this distinction is ambiguous, misleading and confusing, and [that] it should be abandoned’. For a more general critique of prior fault rules, see J J Child, ‘Prior Fault: Blocking Defences or Constructing Crimes’ in Alan Reed and Michael Bohlander (eds), *General Defences in Criminal Law: Domestic and Comparative Perspectives* (Ashgate 2014) 46.

and take advantage of this propensity by placing a blunt instrument under their bed, in the hope that they kill their partner in their sleep.<sup>42</sup> This scenario should not raise questions in regards to the defendant's liability for murder, regardless of whether such offence is a basic or specific intent one, or whether the loss of voluntariness is caused by an intoxicant or not. In this respect, prior fault operates to construct an offence, in the absence of the requisite element of voluntariness.<sup>43</sup> Such an example resembles that of 'Dutch courage' under prior fault intoxication, whereby inducing a state of intoxication, in order to facilitate committing an offence, would not constitute a 'defence' to specific intention offences.<sup>44</sup> The thesis promotes the extension of the principle to issues of voluntariness, in the sense that an agent who deliberately causes the conditions of their involuntariness should be liable for the full offence.

### 3. Summary of Findings

Having emphasised the importance and practical application of the proposed model, it is important to reiterate the main findings of the present thesis, before acknowledging the limitations of the thesis and issuing recommendations to law-making bodies. Analysing the implications of addressing one's voluntariness solely when this is challenged, the first chapter disagreed with legal frameworks concentrating on the issue of involuntariness, rather than voluntariness. Specifically, the Introduction highlighted that it is inappropriate for an alleged lack of voluntariness to be analysed in the context of a defence. In other words, automatism and insanity (as it relates to the issue of voluntariness) are not defences, but rather a reflection of a case in which an element of liability has not been fulfilled. Beyond the importance of adequate labelling, it was argued that addressing the issue of voluntariness in the context of a defence worsens the legal confusion and lack of clarity surrounding the meaning and application of the requirement.

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<sup>42</sup> A similar example is explored by Finkelstein. See Claire Finkelstein, 'Involuntary Crimes, Voluntarily Committed' in Stephen Shute and Andrew Simester (eds), *Criminal Theory: Doctrines of the General Part* (OUP 2005) 143.

<sup>43</sup> Child (n 40) 39.

<sup>44</sup> See *Attorney General of Northern Ireland v Gallagher (Patrick)* [1963] AC 349 (Lord Denning).

No person should be held criminally responsible unless the law is sufficiently clear and certain to allow them to ascertain what conduct is forbidden before they engage in it.<sup>45</sup> As the minimum ingredient of criminal responsibility, it is imperative that the voluntariness requirement is accurately enshrined in law and defined, for the purposes of clarity and consistency. Equally concerning is that in the absence of definition, such an approach risks over-criminalisation, in the context of courts attempting to limit potential abuses from morally blameworthy individuals. Instead, care should be taken to ensure that an element of the offence has been completed. Against this background, the Introduction emphasised the urgent need for the criminal law to employ a legal definition of voluntariness.

Addressing categories of cases in which the issue of voluntariness has been analysed by courts and law-making bodies, the second chapter sought to identify whether there any noticeable rules that could be identified in relation to the meaning of the concept. Here, the analysis looked to situations pertaining to either the voluntariness requirement or the automatism and insanity ‘defences’. Addressing statutory instruments, case law, and proposals for reform from law-making bodies, the chapter noted that there is avoidance in conceptualising voluntariness, due to a perceived complexity of the notion, as well as philosophical intricacies associated with it. However, it was emphasised that the lack of rationalisation of voluntariness has contributed to the development of different standards, according to the type of trigger or circumstance in which involuntariness arises. In most cases, the standard is reliant on the level of moral blameworthiness the defendant is deemed to have had, rather than their actual voluntariness. The chapter also noted that, often, courts simply associate automatism with a loss of consciousness or control, but without clarifying whether or not that should be taken to define involuntariness. In other words, alternative language is used, without explaining whether or not it should be used as a standard to identify voluntariness.

In light of the aforementioned issues, the third chapter sought to develop a provisional definition of voluntariness, focusing on the theoretical foundations of the requirements. Exploring

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<sup>45</sup> *R v Rimmington; R v Goldstein* [2006] 1 AC 459, 482 (Lord Bingham).

philosophical conceptualisations of action and voluntariness, two main lines of inquiry were adopted. The first one focused on discerning what the target of the requirement should be, that is, identifying where the criminal law should look to in order to ascertain voluntariness. Here, the chapter concentrated on the way in which action has been defined in philosophy, addressing distinctions between so-called ‘basic’ and ‘complex’ actions.<sup>46</sup> Specifically, it was argued that, in order to ascertain voluntariness, the law should focus on bodily movements, as opposed to action descriptions. Such an approach would see the requirement of voluntariness as a gateway to further assessments of liability.<sup>47</sup> That is, once a movement – a basic action – is deemed voluntary, this would enable the law to carry out *actus reus* and *mens rea* assessments relevant to each offence, in the sense that more complex descriptions could be imposed on the movement.

Once the chapter established the focus of the requirement on bodily movement, the second part of the chapter engaged in an exploration of multiple conceptualisations of voluntariness. Specifically, the analysis focused on three main concepts that could be used to describe voluntariness, namely ‘volition’, ‘intention’ and ‘control’, examining them from both philosophical and legal perspectives. First, it was highlighted that a reliance on volitions would maintain the conceptual issues currently affecting the voluntariness requirement, for it would serve to replace an abstract concept with an equally abstract one. Second, the chapter noted important drawbacks to such a conceptualisation of voluntariness based on intentions. Viewed as a standalone concept, intention could introduce uncertainty within the legal framework, given that it is already used as a constituent element of the *mens rea* of multiple offences. Equally, under a ‘conscious intention’ model, the requirement would be under-inclusive, for it may exclude movements such as habitual ones, which have been frequently deemed as voluntary within legal scholarship and may nevertheless reflect a person’s agency.<sup>48</sup> In this context, the inquiry

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<sup>46</sup> Chapter 3.2.a.

<sup>47</sup> Chapter 3.3.

<sup>48</sup> Law Commission (n 12) para A.48. See also Jeremy Horder, ‘Pleading Involuntary Lack of Capacity’ (1993) 52 CLJ 298, 302; and J J Child, ‘Defence of a Basic Voluntary Act Requirement in Criminal Law from Philosophies of Action’ (2021) 24 New Criminal Law Review, 11. See however Gideon Yaffe, ‘The Voluntary Act Requirement’ in Andrei Marmor (ed), *The Routledge Companion to Philosophy of Law* (Routledge 2012) 176: ‘We treat habitual bodily movements, that is, as though they were voluntary acts in the legal sense, even though we have no idea if they are in fact’.

concentrated on the model of voluntariness promoted in the present thesis, based on the control of bodily movement. Specifically, the chapter explored connections made within the philosophy of action as to the relevance of control for voluntariness. Here, it was argued that such a focus on control would alleviate concerns regarding habitual movements, as well as better promote one's freedom and agency in moving, particularly in the context of the principle of alternate possibilities (PAP). Exploring multiple references to control within legal frameworks, the chapter proposed a model based on the agent's *sufficient* retention of bodily control, in as much as they would still have the physical capacity to move otherwise – including refraining to move. Despite limitations surrounding the effective identification of the necessary threshold, the investigation established that a control model would be the most suitable model to adopt as a definition of voluntariness. In this context, the chapter concluded by provisionally proposing a definition of voluntariness as **'the exercise of sufficient bodily control to the effect that one can move otherwise'**.

To provide additional strength and to explore the model from an empirical perspective, the fourth chapter reflected on the suitability of the provisional definition by incorporating neuroscientific evidence into the assessment. Here, areas of the brain involved in executing bodily movements were identified, with a view to highlight the effect of potential impairments to such areas on the exercise of self-control. In addition, the chapter focused on inhibitory mechanisms, given their central role in enabling agents to refrain from moving their bodies, as well as empirical evidence showing which cognitive processes are at play in the control of bodily movements and what would impairments to those processes entail. Equally, addressing research on the nature of habitual movements, the chapter highlighted that such movements are not necessarily intentional, nor conscious. Specifically, the chapter discussed evidence to the effect that there are separate neural pathways dedicated to inhibiting habitual and goal-directed movements, which supports the presumption that even though they are both within our bodily control, such movements are distinct.

Lastly, chapter five engaged in an application of the proposed model of voluntariness to the context of hypnotic movement. Beyond exploring the practical implications of adopting a control-

based model, this analysis also sought to provide further clarification surrounding the status of hypnotic movements. Such movements have been categorised as involuntary by courts in multiple jurisdictions, but without providing full clarification as to why that is the case.<sup>49</sup> Exploring theoretical and empirical evidence surrounding the nature of hypnotic movements, the chapter argued that agents do retain sufficient control when undergoing hypnosis. In other words, the capacity to inhibit or move alternatively is retained, indicating that under a control-based of voluntariness, hypnotised individuals move voluntarily. This finding challenged the approach taken by courts and law-making bodies to date, i.e. that of categorising such movements as involuntary.

#### 4. Limitations

This study promotes a definition of voluntariness based on control, which, it is argued, is most appropriate from a practical and normative viewpoint, and seeks to bring clarity and consistency to the criminal legal framework. Nevertheless, it is important to acknowledge and highlight the limitations of the present study, for the thesis does not claim that the proposed definition is perfect, either descriptively or normatively. These issues should be underlined, for they may serve as the basis for further research and help improve the application of the requirement. From a descriptive perspective, a limitation surrounding the proposed model is represented by the still uncertain threshold at which one is no longer able to exercise bodily control. This threshold may well vary from person to person and as such, may be difficult to fully implement within a legal framework.<sup>50</sup> For example, one medical condition may manifest itself differently and not everyone suffering from it may experience a loss of inhibitory control. Evidence such as brain imagining may provide some indication, but that may not go beyond a mere correlation.<sup>51</sup> Moreover, it would be

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<sup>49</sup> See *R v Coley* [2013] EWCA Crim 233.

<sup>50</sup> See Chapter 4.2.c.

<sup>51</sup> Morse has been one of the biggest critics in this respect, stressing that correlation in neuroscience cannot amount to causation in law. See Stephen J Morse, 'Brain Imaging in the Courtroom: The Quest for Legal Relevance' (2014) 5 *AJOB Neuroscience* 24; Walter Glannon, 'What Neuroscience Can (and Cannot) Tell Us about Criminal Responsibility' in Michael Freeman, *Law and Neuroscience: Current Legal Issues Volume 13* (OUP 2011).

inefficient, not to mention financially and time consuming, if this type of evidence would be relied upon in every case in which the capacity to exercise would not be easily discernible. Equally, the standard against which such evidence should be assessed is uncertain. What would be the baseline, i.e. the neurological benchmark, for inhibitory capacity? Should the law concern itself with promoting a standard of a ‘normally’ functioning brain and inhibitory mechanism? These questions should be explored further.

Following from the abovementioned issues, it must be reiterated that neuroscientific and empirical evidence surrounding our execution and inhibition of bodily movement cannot be fully relied upon to effect legal change or radically alter the legal standard.<sup>52</sup> Beyond debates surrounding the potential for neuroscience to challenge the law’s reliance on free will, legal frameworks are ultimately liable to change according to normative considerations and social constructs.<sup>53</sup> Decisions surrounding appropriate legal definition can well be influenced by empirical evidence but ultimately, they will be reflected within the framework through folk psychological criteria such as control, intention, etc. Neuroscience can help insofar as it may adjudicate certain individual cases and can help support certain assumptions such as those made in the present analysis. However, this will generally be related back to a folk psychological process, in the present case, i.e. that of controlling one’s bodily movements. The question of how much control one may need in order to be voluntary will always be a normative one.

At the same time, one fundamental question that the law should seek to answer is whether, as a reflection of one’s agency, it is appropriate to focus on one’s capacity to move freely, as opposed to the impression of moving freely. Throughout the analysis, it has been argued that a control-based model is the most suitable to apply, casting the reach of the requirement wide, including on

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<sup>52</sup> For a discussion on the limitations of neuroscientific research in legal assessments, see Chapter 4.1.

<sup>53</sup> For instance, the past few decades have seen the criminalisation and decriminalisation of certain activities, in accordance with changes in public attitudes and shifts in societal standards. Such shifts have not relied on empirical evidence necessarily, but by the normative evolution within the legal framework. Even in relation to defences such as diminished responsibility or insanity, the focus has not been on the neural correlates of certain impairments, but on their behavioural application to folk psychological criteria. For further information, see Stephen J Morse, ‘Lost in Translation? An Essay on Law and Neuroscience’, in Michael Freeman (ed), *Law and Neuroscience* (OUP 2011).

types of movements that are intuitively reflective of our agency and autonomy, such as habitual movements.<sup>54</sup> However, a conceptual counterargument to such categorisation exists, which has been discussed in Chapter 3. This relates to the issue of reconciling the proposed model with those cases in which an agent lacks capacity to move otherwise, but their movements are nevertheless consistent with their desired goals.<sup>55</sup> This counterargument is one of the commonly cited ones when it comes to the Principle of Alternate Possibilities, upon which the proposed definition has been modelled.<sup>56</sup> Certainly, philosophical accounts of action should not necessarily be conflated with legal ones. However, the criminal law should nevertheless consider whether one's freedom of movement is to be found in genuine alternatives for movement or in one's impression of having that ability. This is a question that cannot be easily answered, and which can be related, more widely, with that of whether the law should be concerned with the potential truth of determinism.

Normatively, it should also be acknowledged that, while the primary basis for this thesis has been to recommend a statutory definition that would contribute to legal certainty and consistency within the legal framework, it is unlikely that such aims will ever be achieved in full. While a legal definition would surely contribute towards these objectives, the fact that such a definition will ultimately be interpreted by courts means that there are limits to the application of the definition in a clear and certain way. While the idea that like cases should be treated alike is a guiding principle of the common law, the risk of variability in the approach taken will remain. This is even more relevant in the present case, as the thesis argues for the abolition of the current law and the imposition of a new definition that should not be interpreted in light of previous case law on automatism and insanity. Thus, a new body of case law dedicated towards interpreting the definition would naturally develop. However, this would occur gradually and in a reactive manner, as courts will primarily issue guidance on the matter in light of individual cases that are

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<sup>54</sup> This is notwithstanding the arguments as to whether the law should be concerned with habitual actions in the first place. For further information, see Yafee (n 47) 176-178.

<sup>55</sup> For further detail, see Chapter 3.c.

<sup>56</sup> For further information on PAP, see Frankfurt (n 48).

brought before them. This is a limitation of the common law as a whole and should be acknowledged here as well.

Finally, the proposed definition of voluntariness may have to be revised in the future, in light of the nascent field of brain-computer interfaces. These allow people to use electrical signals from brain activity to provide commands to a computer.<sup>57</sup> Currently, brain-computer interfaces are being experimented with in the context of people suffering from neuromuscular disorders such as cerebral palsy, or people with spinal cord injury. However, given the focus of the voluntariness requirement on bodily movements, the definition may have to be amended, in order to capture the capability of these systems as and when they develop. This could involve extending the definition to include bodily or ‘equivalent proxy’ control. Such an addition would not add unnecessary complexity to the requirement. This is because courts should find cases less troublesome to assess, due to the ability of computers to leave an evidential trail, as well as the fact that they operate based on well-defined triggers.

## **5. Recommendations to Law-Making Bodies**

Throughout the thesis, the analysis has focused on demonstrating that maintaining a categorisation of automatism as a defence is conceptually inappropriate, potentially leading to over-criminalisation. Addressing philosophical and neuroscientific research with a view to produce a definition of voluntariness that is theoretically and empirically appropriate, the thesis has settled on a model based on control. In this context, it is important to emphasise a number of recommendations that the study seeks to make to law-making bodies. The aspects that courts or legislature should consider and act upon are the following:

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<sup>57</sup> For further information, see Jerry J Shih, Dean J Krusienski, and Jonathan R Wolpawc, ‘Brain-Computer Interfaces in Medicine’ (2012) 87 Mayo Clinic Proceedings 268.

- **The automatism rules should not be categorised as a defence.**

Categorising automatism (and insanity, where a lack of voluntariness is concerned) as an excusatory defence is conceptually inaccurate, as an instance of automatism merely reflects that an essential element of liability has not been fulfilled.<sup>58</sup> Defences operate on the assumption that the elements of an offence have been committed, but that there are strong reasons to excuse or justify the defendant's actions. With involuntariness, there is nothing to excuse the defendant for, as no movement can be attributed to an autonomous agent in the first place. A lack of voluntariness is not concerned with the exercise of 'capacities for rational deliberation and action' in the way that excusatory defences are.<sup>59</sup>

- **The automatism rules should be abolished.**

As an essential ingredient of criminal responsibility, it is difficult to justify the co-existence of a requirement of voluntariness with that of automatism, even where there is a recognition that the latter does not amount to a defence. The fact that central to automatism assessments is one's involuntariness is hard to reconcile with the application of a standard of voluntariness. Such an approach would add conceptual confusion to the criminal law and affect certainty in respect of what types of cases should be judged under which category. Instead, the automatism rules should be abolished. The same approach is recommended in relation to the insanity rules, where this concerns a lack of voluntariness.<sup>60</sup> Instances of involuntariness that are currently addressed under automatism and insanity, depending on the trigger, should be approached under the remit of the voluntariness requirement.

- **Any criminal assessment should begin by ascertaining whether the defendant had been voluntary.**

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<sup>58</sup> See also J J Child and Alan Reed, 'Automatism Is Never a Defence' (2014) 65 NILQ 167.

<sup>59</sup> R A Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law* (Hart Publishing 2009) 287.

<sup>60</sup> As discussed above in section 2.c, this need not bar the application of disposal powers.

The requirement of voluntariness should be viewed as a gateway to criminal responsibility assessments. Conceptually, the definition may be regarded as a subset of the *actus reus* of an offence, but this should be clearly distinguished from analyses surrounding the circumstances or effects of certain movements. That is, the voluntariness of the defendant should be established applied first and it is only once this is identified established that the criminal law should look to wider concerns relevant to the *actus reus* of the specific and *mens rea* of the offence, the *mens rea*, as well as the potential application of a defence. However, for practical purposes, a presumption of voluntariness may apply, provided the defendant only bears an evidential, rather than a legal burden of proof.

- **The focus of the requirement of voluntariness should be on bodily movements.**

The requirement of voluntariness should focus on bodily movements (or the lack of movement, in the case of omissions) as the target of the definition. Understood as basic actions, that is, as an action that is not the effect of a previous one, bodily movements offer the backdrop against which the criminal law can impose descriptions and carry out criminal responsibility assessments. In other words, once an agent is found to have moved voluntarily, the law can subsequently carry out *actus reus* and *mens rea* assessments. These relate to the consequences or circumstances in which those movements were carried out, what they amounted to, whether any criminal intention, recklessness, etc. accompanied them, and so on.

- **Voluntariness should be identified in relation to bodily control.**

The definition of voluntariness should be adopted is that of:

**the exercise of sufficient bodily control to the effect that one can move otherwise**

This approach rests on the idea that control is essential for free action as the basis for moral responsibility. That is, free action rests on our agential control and the ability to follow a course of action out of many possible ones at any given moment. Therefore, as autonomy is enhanced through the exercise of control and the availability of alternate possibilities of action, this is the most suitable conceptualisation of voluntariness. Such approach is also supported though

empirical research in respect of our ability to regulate movements, including the inhibition of movement.

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