



## The Moral Brain and the Guilty Mind:

Towards an Emotion-oriented General Theory of Culpability informed by the Neuroscience of Moral Decision-Making and Antisocial Behavior

Federica Coppola

Thesis submitted for assessment with a view to obtaining  
the degree of Doctor of Laws of the European University Institute

Florence, June 15, 2017



European University Institute  
**Department of Law**

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**Examining Board**

Prof. Dennis Patterson, European University Institute (EUI Supervisor)  
Prof. Lisa Claydon, The Open University Law School  
Prof. David Roef, Maastricht University  
Prof. Stephen Morse, University of Pennsylvania Law School

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*“[...] salimmo sù, el primo e io secondo,  
tanto ch'i' vidi de le cose belle  
che porta 'l ciel, per un pertugio tondo.*

*E quindi uscimmo a riveder le stelle.”*

**Dante - Inferno XXXIV, 136-139**



## Abstract

Criminal culpability relies upon a rationalist conception of criminal decision-making. According to this rationalist view, criminal decisions are nothing more nor less than the result of intellect-governed instrumental reasoning, aimed at maximizing one's pleasure to the detriment of the interests of other individuals. Therefore, culpability is grounded solely in offenders' cognitive intelligential faculties, by virtue of which offenders know the meaning of their criminal actions, and thus willfully choose to act upon their antisocial impulses. While cognitive intellect is thought to be the only mental source of criminal decision-making, emotions are presumed to have no bearing on the deliberative processes leading to rational criminal choices. Criminal law thus excludes emotions from the essential mental components of culpability, as well as of culpability doctrines. The criminal law's rationalist model of the culpable agent *quo* calculating, emotionally-cold actor collides with the huge body of neuroscientific literature about the influential role of emotions on (im)moral decision-making processes. For emotions appear to be critical in either informing, or hindering, moral decisions - and behavior-, neuroscientific disciplines vigorously hypothesize that antisocial behavior is also, and significantly, emotion-influenced rather than solely cognition-driven. Drawing upon these scientific insights, this dissertation reforms the rationalist tenets of culpability by including emotions in its relevant psychological set. It therefore provides a broader paradigm of the "legally relevant mind", one in which emotional, cognitive, and volitional spheres play an equally important role in determining criminal choices. It then offers a normative argument for reconsidering the overall meaning of culpability in light of the *real* mental processes that undergird and guide moral decision-making and antisocial behavior. The argument emphasizes that an emotion-oriented understanding of culpability better reflects the meaning of blameworthiness, and exhibits greater compliance with the principle of personal guilt. The investigation then tests the newly developed emotion-oriented conception of culpability, informed by moral neuroscience, on culpability doctrines - notably, the *mens rea* state of criminal intent, insanity, and diminished capacity. After integrating the new paradigm of legally relevant mind in the respective psychological sets of said doctrines, the study reconsiders their conceptual substance, and provides revised formulations of their standards. The dissertation concludes with an analysis of the potential implications of this neuroscientifically informed theory of culpability for forensic and correctional contexts.



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My story with Law and Neuroscience began by chance. It began when I was totally disappointed with what life was offering me after graduating from University of Bologna Law School. I was 24 years old, and I was working at a small law firm in my hometown. Although I was learning a lot, I had the constant, terrible feeling that I was not where I should be. One day I decided to attend a conference on forensic science in criminal trials. That was the day I encountered ‘law and neuroscience’ for the first time. It was love at first sight. I understood that I wanted to be an academic, and I understood that I wanted to research ‘neurolaw’. It took me two years before someone opened the door to my ideas. Two years of sacrifices and rejections, but during which I never lost my hope and my determination.

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## Preface

### I. THE FUTURE OF THE LAW AND THE LAW OF THE FUTURE: NEUROLAW

The field of “neuroscience” encompasses a group of disciplines - neurology, psychology, psychiatry, genetics, chemistry- which investigate the neurobiological underpinnings of (human) thought and behavior. The increasingly accurate methods and technologies<sup>1</sup> used in the neurosciences have, particularly over the last two decades, led to the discovery of very strict links between the brain and behavior, posing serious challenges for social fields. Developments in neuroscience, indeed, have potentially transformative applications in a variety of institutional contexts.<sup>2</sup> Among these, one of the most promising, yet hotly disputed, fields of study that envisage the concrete use of neuroscientific findings for social purposes, is law and neuroscience.

Law and neuroscience (sometimes ‘neurolaw’) is a relatively new field of study concerned with the intersection between different branches of law and neuroscientific findings about the strict correlation of mental functions and human behavior to brain mechanisms.<sup>3</sup> Although the implications of neuroscientific thinking and knowledge for law and legal scholarship have raised a variety of legal issues,<sup>4</sup> doctrinal disputes keep on focusing primarily on the impact of

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<sup>1</sup> I am referring to neuroimaging techniques, which measure both the structure, or the anatomy, (e.g., Structure Magnetic Resonance Imaging) and the functioning of the brain (e.g. Functional Magnetic Imaging, or fMRI). For an overview of specific neuroimaging techniques, see Peter Bandettini, ‘What’s new in neuroimaging methods?’ (2009) 1156 *Annals of the New York Academy of Science* 260.

<sup>2</sup> For instance, Jake Dunagan from the American Institute for the Future, coined the expression “Neurocentric Age” to explain how neuroscience is likely to become the main tool of knowledge in the next future, and how this could provoke rapid changes in political, economic, and ethical domains. See Jake Dunagan, ‘Politics for the neurocentric age’ (2010) 15 *Journal of Future Studies* 51; Jake Dunagan, ‘Neuro-Futures. The brain, politics, and power’ (2004) 9 *Journal of Future Studies* 1; see also Peter Becker, ‘The coming of a neurocentric age? Neurosciences and the neurobiology of violence: A historian’s perspective’ (2010) X (19-20) *Medicina & Storia* 101.

<sup>3</sup> For an overview on neurolaw, see, *inter alia*, Oliver Goodenough & Micaela Tucker, ‘Law and cognitive neuroscience’ (2010) 6 *Annual Review of Law and Social Science* 61; Owen Jones et al., ‘Law and neuroscience’ (2013) 33(45) *The Journal of Neuroscience* 17624.

<sup>4</sup> Apart from criminal law, the areas of law that might intersect neuroscience include legal theory, tort law, and constitutional law. See, for example, Dennis M. Patterson & Michael Pardo,

neuroscience on criminal responsibility. By suggesting that the mind is just the *shadow* of the brain,<sup>5</sup> neuroscience has the potential to challenge the adequacy of some legal rules and standards pertaining to responsibility, that are orthodoxically grounded in obsolete, erroneous intuitions.

Despite being in their infancy, the neuroscientific “revelations” have sparked a huge debate between criminal law theorists and brain scientists. This debate is divided into two main different views: according to the most drastic and controversial view - of which the Joshua Greene and Johnathan Cohen’s provocative article “*For the Law, Neuroscience changes nothing and everything*”<sup>6</sup> is emblematic- the deterministic revelations of neuroscience demonstrate that free will (allegedly the foundation of criminal responsibility) is a mere illusion.<sup>7</sup> According to this perspective, the proven nonexistence of free will might provoke a sort of ‘domino effect’, for demonstrating the nonexistence of free will would mean neglecting the essence of moral responsibility, and without moral responsibility there cannot be criminal responsibility; therefore, the retributivist rationale of punishment would prove meaningless.

Apart from provoking a misleading interpretation of the concrete ramifications of neuroscience for criminal law, the dramatic scenario advanced by commentators like Greene and Cohen, has also inspired a generally negative and

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‘Neuroscience and legal theory: Jurisprudence, morality and economics’, Conference on Law and Neuroscience: State of the Art (Sept. 2012) Rutgers Institute for Law & Philosophy, Rutgers-Camden School of Law; Jean Macchiaioli Eggen & Eric J. Laury, ‘Toward a neuroscience model of tort law: How functional neuroimaging will transform tort doctrine’ (2012) Colum. Sci.&Tech. L. R. 235; Michael Freeman (ed), *Law and neuroscience. Current Legal Issues Vol. 13* (Oxford University Press 2010).

<sup>5</sup> The neuroscientific account of the mind/brain relation is generally reductionist. Yet there are two different reductionist views. One supports the so called ‘identity theory’, for which the mind *is* the brain, and thus mental functions simply don’t exist. For this view, there are no mental events *over and above*, or *in addition to*, the neural processes in the brain. The other view supports the so called ‘correlation theory’: while maintaining the fundamental role of the brain as the inescapable antecedent cause of human thought, mental states, and behavioral response, it at the same time considers mental functions as something arising from the brain, rather than identical with it. Nevertheless, mental functions are epiphenomenal to human behavior.

<sup>6</sup> Joshua Greene & Jonathan Cohen, ‘For the law, neuroscience changes nothing and everything’ (2004) 359 *Philosophical Transactions of the Royal Society of London B* 1775.

<sup>7</sup> This view is largely influenced by Benjamin Libet’s ‘readiness potential’ experiment, by which Libet demonstrated that decisions are made in the brain 550 milliseconds before any reportable consciousness of the decision arises. See Benjamin Libet et al., ‘Readiness potentials preceding unrestricted spontaneous pre-planned voluntary acts’ (1983) 54 *Electroencephalographic and Clinical Neurophysiology* 322. However, later neuroscientific studies highlighted a number of weaknesses and contradictions of Libet’s methodology. See, e.g., Patrick Haggard & Martin Eimer, ‘On the relation between brain potentials and the awareness of voluntary movements’ (1999) 126 *Experimental Brain Research* 128; Patrick Haggard, ‘Human volition. Towards a neuroscience of the will’ (2008) 9 *Nature Reviews Neuroscience* 934.

critical attitude - still prevailing and sometimes aprioristic - against the possibility of profitable interplay between neuroscience and criminal law.<sup>8</sup>

Another view proposes an alternative and more realistic interpretation of the relationship between the two fields. Notwithstanding the lack of a unanimous view (and acceptance) of how exactly the brain enables the mind, and thus how undergirds human behavior, an increasing number of scholars are adopting a positive attitude towards neuroscience, foreseeing profitable scenarios in the near future.<sup>9</sup> One of the main arguments in support of this perspective is that while neuroscience continues to evolve, the law stays stagnant and mired in outdated concepts and assumptions, which may prove mistaken when measured against neuroscientific evidence about human thought and behavior.<sup>10</sup> That is, while neuroscience has greatly evolved knowledge of the relationship between the brain and human behavior, the law has failed to take this into account because, by its very nature, it has been unable to move at the same pace as science. Despite insistence that the normative character of criminal law, and of criminal responsibility in particular, precludes its replacement with the empiricism of neuroscience, these accounts recognize that studies on the brain might nonetheless offer helpful insights to revise flawed theoretical assumptions embodied in criminal law.

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<sup>8</sup> The most significant response to the 'free will dilemma' is offered by Stephen J. Morse, who epithets the free will problem as the 'free will confusion syndrome'. In a compatibilist vein, Morse claims that free will is not foundational for criminal responsibility. See Stephen J. Morse, 'Avoiding irrational neurolaw exuberance: A plea for neuromodesty' (2011) 62 *Mercer Law Review* 837, 845 (asserting that "[l]aw addresses problems genuinely related to responsibility, including consciousness, the formation of mental states such as intention and knowledge, the capacity for rationality, and compulsion. The law, however, never addresses the presence or absence of free will"); see also Stephen J. Morse, 'The non-problem of free will in forensic psychiatry and psychology' (2007) 25 *Behavioral Sciences & the Law* 203; Stephen J. Morse, 'Determinism and the death of folk psychology: Two challenges to responsibility from neuroscience' (2008) 9(1) *Minnesota Journal of Law Science & Technology* 1. *Contra* Morse's compatibilist view, see Adam Kolber, 'Will there be a neurolaw revolution?' (2014) 89 *Indiana Law Journal* 807, 823 ("Lawmakers considered us to have souls that make decisions quite independent of the physical world. Evidence of mechanism poses at least some threat to the libertarian worldview that plausibly underlies the legal system.").

<sup>9</sup> See, *inter alia*, Owen Jones, 'Seven ways neuroscience aids law' (2014) 121 *Scripta Varia* 1; Amedeo Santosuosso (ed), *Le neuroscienze e il diritto* (Ibis 2009); Michael Freeman, Oliver Goodenough (eds), *Law, mind, and brain* (Ashgate Publishing, Ltd 2009).

<sup>10</sup> See Stephen J. Morse, 'The status of neurolaw: A plea for current modesty and future cautious optimism' (2011) 39(4) *Journal of Psychiatry and Law* 595, 621 (proposing four types of situations in which neuroscience may be of assistance to the criminal law: "(a) data indicating that the folk-psychological assumption underlying a legal rule is incorrect; (b) data suggesting the need for new or reformed legal doctrine; (c) evidence that helps adjudicate an individual case; and (d) data that help efficient adjudication or administration of criminal justice.").

For this view - which I subscribe myself to- neuroscientific accounts might (and should) be used to correct criminal law's folk psychological assumptions about human behavior like, for example, that mental states (desires, beliefs, intentions) are fundamental to a *full* explanation and understanding of human action, while biological and other psychological variables play just a limited causal role.<sup>11</sup> In this vein, many authors claim also that neuroscience should be integrated into criminal law to improve our understanding of the criminal mind, and thus enable more accurate evaluation of criminal behavior.<sup>12</sup>

Despite this aspiration on the part of some legal scholars, the effective contribution that neuroscience might offer to criminal law is currently merely hypothetical, and not fully explored. Indeed, current "neurolegal" literature lacks an analytical study into how neuroscience might assist criminal law scholarship in either revising or improving criminal law's concepts, rules, standards, and theories. In other words, the current *lacuna* in literature is a concrete analysis of the normative implications of the incorporation of neuroscientific theories into criminal law. The research presented herein is precisely intended to contribute to bridging this gap.

## II. EMOTION AND MORAL DECISION-MAKING AS A BRIDGE BETWEEN CRIMINAL LAW AND NEUROSCIENCE: THE CORE MATTER OF THIS THESIS

Neuroscientific research is in constant flux. Studies on human thought and behavior come in many varieties, some assumptions about specific brain functions are now supported by a great number of convergent studies, while other investigations are still at an embryonic stage. Many findings about the brain and behavior prove surely relevant for the law; others, instead, do not exhibit any significant challenge, nor innovation, for the legal domain.

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<sup>11</sup> See Owen Jones, n. 9, 8 ("Any time well-executed and properly interpreted neuroscientific developments strongly challenge important assumptions on which a given feature of law relies it can add value by virtue of such challenges. It may help the legal system avoid error, and might prompt useful reform of approaches based on faulty assumptions.").

<sup>12</sup> See, e.g., Erin Ann O'Hara, 'How neuroscience might advance the law' (2004) 359 *Philosophical Transactions of the Royal Society of London B* 1677; Shelley Batts, 'Brain lesions and their implications in criminal responsibility' (2009) 27 *Behavioral Sciences and the Law* 261.

As an aspiring neurolegal scholar, the very first endeavor of my research consisted of identifying a specific branch within the wide spectrum of neuroscientific research that could actually prove, not necessarily challenging, but in a sense ‘useful’ for criminal law. In other words, I had to identify a specific branch of neuroscientific research that could allow me to develop an interdisciplinary discourse on how neuroscience could be combined with the criminal law.

While exploring neuroscientific literature, I realized early on that an interesting, profitable and worthwhile part of neuroscientific research that could have a fruitful dialogue with criminal law, was the role of emotions in decision-making processes, both moral and antisocial. The choice of combining criminal law with emotions emerged indirectly from my background. As a student of criminal law, one of the first things I learnt was that criminal law embraces a solid rationalist view of human, and notably, criminal behavior. I admit that, as a student, I always accepted this assumption “passively”. Yet when I found myself, as a researcher, confronted with scientific literature on the complex mechanisms involved in moral and criminal decision-making, I soon realized that this could be a fruitful topic for my PhD research. That is, I developed the idea of orienting my research towards the measurement of the criminal law’s rationalist views about human behavior, law-abiding and criminal alike, against the neuroscientific findings about emotions, moral decision-making processes, and antisocial behavior. Also, and consequently, I decided to investigate how the revision of legal assumptions with said neuroscientific findings could lead to a rethinking of the general notion of culpability.

Over the last thirty years, advances in neuroscientific research has provided an increasingly accurate picture of how the human brain works in moral decision-making and prosocial behavior. Importantly, the growing body of neuroscientific studies on moral decision-making processes shows a positive correlation between said processes and socio-emotional brain systems - in addition to cognitive systems. Thus, it outlines the crucial role(s) of emotions - both basic and moral- in informing moral, and prosocial behavior. In a nutshell, investigation in moral neuroscience supports the view that emotion serves as a crucial mediator for

prosocial behavior, that is, prosocial behavior largely depends on proper and balanced emotional functioning.

Research on the neural correlates of moral decision-making and prosocial behavior has been further contextualized in criminal decision-making and antisocial behavior. This kind of investigation forms the focus of neurocriminology. Although distinct in scope, research in neurocriminology overlaps with research in moral neuroscience. Neuroimaging studies of different types of antisocial subjects has so far shown that many common traits among antisocial population (e.g., aggression, lack of inhibition, callousness) are associated with altered functioning in the same brain regions that constitute the socio-emotional circuit of what has been called the ‘neuromoral network’. Based on this evidence, neurocriminologists suggest that antisocial behavior, just like moral and prosocial behavior, is profoundly influenced by our emotions.

Although neurocriminology proves crucial to a better understanding of criminal behavior, the potential mapping of the “criminal brain” seems to echo the ghost of biological determinism, which is the threat *par excellence* for criminal law. Some would use the expression “neo-Lombrosism” to describe the neuroscientific endeavor of identifying the neural correlates of antisocial decision-making: although scientific technologies have greatly advanced since Cesare Lombroso was studying the cranial capacity of deceased inmates,<sup>13</sup> still the possibility of identifying specific neural correlates of antisocial behavior is thought of as potentially producing the same risky consequences for the law as those envisaged by Positivist thinkers. That is, the neuroscientific mapping of the criminal brain might mark a return to viewing criminals as different beings compared to law-abiding individuals, it would threaten the assumption that criminal behavior is the result of a free-willed choice, it might disavow the retributivist principles of punishment and thus imply the accuracy of radical consequentialist justice approaches.

While this is a very much popular interpretation that legal scholars give of the findings of neurocriminology (and, implicitly, of moral neuroscience), I do not think that such a negative, and defeatist approach is the right way to interpret the

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<sup>13</sup> Cesare Lombroso, *Criminal man*, Mary Gibson & Nicole Rafter (transl) (first published in 1878, Duke University Press 2006), ch. 1.

real potential of said neuroscientific findings for criminal law. The fact that neuroscience identifies the brain mechanisms that seem to be associated with either prosocial or antisocial behavior does not equate to maintaining that these brain mechanisms *cause* either prosocial or antisocial behavior. There is at present no evidence showing such a direct causal link between the brain and moral and/or antisocial behavior. However, neuroscientific evidence about which brain circuits appear to underpin moral decision-making, or antisocial traits, can still be used to show that some commonsense-based legal assumptions about the mental foundations of these kinds of decision-making processes, and behaviors, are flawed and grounded in mistaken intuitions.

Most importantly, the neuroscientific insights into the preponderant role of emotions in decision-making processes - both moral and antisocial- might well be used to revise the criminal law's marked cognitivist approach to rational thought, and behavior, that it uses to conceptualize the mental foundations of culpability (and therefore of culpability doctrines). It is very well-known that the law exhibits a "devotion to the myth of an emotion-less cognitive sphere".<sup>14</sup> According to Susan Bandes, there are two main reasons underlying the law's negative attitude towards emotion. First, the law is generally unwilling to learn from other disciplines that "legal scholars are so far behind in understanding how knowledge is acquired and how and why people act on it".<sup>15</sup> Second, emotion might "threaten what the law hopes to be".<sup>16</sup> For the law hinges on abstract categories, emotion "in all its messy individuality"<sup>17</sup> represents a threat for the maintenance of such categories.

If we adapt the latter claim to the criminal responsibility domain, we notice that the above-mentioned criminal law's acceptance of a purely intellect-based understanding of human behavior is in perfect line with the law's general tendency to rely upon abstract categories to provide an easier guidance and evaluation of human behavior. From another perspective, however, the inclusion of emotion in criminal law categories might well serve as a tool to improve the accuracy of the criminal law's guidance and evaluation of criminal behavior. In

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<sup>14</sup> Susan Bandes (ed), *The passions of law* (New York University Press 2001) 7.

<sup>15</sup> *ibid.*

<sup>16</sup> *ibid.*

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

fact, it might well increase the accuracy of individual culpability and responsibility assessments, as well as of the correction of criminal individuals. Overall, the integration of emotions in criminal law categories could be more in line with the foundational principles of personal guilt, retribution and just desert, as well as rehabilitation.

In summary, this research wants to overcome the above-mentioned legal *impasses*, as Bandes highlights them, and advance criminal law theory by confronting it with the neuroscience of moral decision-making and antisocial behavior, and thus integrating traditional cognition-based legal categories with a more emotion-oriented understanding of either prosocial or antisocial behavior. In so doing, the approach proposed with this research is likely to overcome the general reluctance of the law about accepting other sciences to help it provide a better definition of its concepts. On the other hand, it will support the subjectivist position in criminal law (which is currently minor compared to the orthodox objectivist one), according to which criminal law should dismiss the adoption of abstract categories, and thus rely upon more individualized categories, ones which guarantee a truly accurate evaluation of criminal wrongdoing.

To conclude, a critical interpretation, and adaptation, of the neuroscience of emotions (including moral and antisocial decision-making) to the criminal law domain might well lead to a rethinking of the overall role of emotion in criminal law, and thus to a revision of flawed cognition-based doctrines by reconsidering their substance with more emotional contents. More specifically, this research seeks to “translate” knowledge emerging from neuroscientific discoveries about the correlates of moral and antisocial behavior, and turn that into fruitful legal arguments that might lead to a rethinking of traditional approaches to culpability.

The added value of undertaking this interdisciplinary endeavor is threefold: first, it will highlight important scientific findings and how these findings might be relevant to law; second, it will serve as a filter between neuroscientific disciplines and criminal law, allowing only adequately reliable scientific evidence to influence legal thought; third, it will use relevant scientific information and adapt it to the legal language in order to develop an alternative theory of culpability hinging on emotion.

### III. SUBJECT MATTER AND SCOPE OF THIS THESIS

This thesis explores the interaction between the criminal law doctrine of culpability, and the area of cognitive and affective neuroscientific research that relates to moral, and antisocial, decision-making processes. My research can be defined as a ‘legal experiment’ aimed at investigating the potential impact of neuroscience on criminal law by testing theoretical assumptions underlying the doctrine of culpability against neuroscientific knowledge about the sources and structure of moral and criminal behavior. The scope of this thesis is to bring a far-reaching change of perspective into the way criminal law conceptualizes criminal behavior, and hence the mental foundations of culpability. It will do so by developing a model of culpability hinging on neuroscientific insights into the role of emotions in moral decision-making processes and antisocial behavior, and thus by providing an alternative conception of culpability based on a different, neuroscientifically informed understanding of rational decision-making - law-abiding and antisocial alike.

This research pursues two main goals:

- 1) First, it aims at providing a potential approach to bridge criminal law and neuroscience. As mentioned above, the ultimate purpose of ‘neurolaw’ is that of finding ways by which neuroscientific knowledge can aid legal domains, at both theoretical and practical levels. The contribution of this thesis to neurolegal literature is precisely that of offering a neurolegal theory of culpability, and thus providing an example of how criminal law might embrace and make use of neuroscientific knowledge to revise its normative assumptions. A neurolegal theory of culpability, though at an experimental level, has so far never been proposed. This thesis aims to fill this gap in neurolegal literature, namely by providing neurolegal scholarship with a theory in which criminal law and neuroscience do work together. Of course, this is simply *one* potential approach through which criminal law and neuroscience may communicate. However, it is an initial step towards a new, experimental way of conceiving of culpability through the lens of neuroscience.

2) Apart from pursuing “neurolegal” purposes, this research also contributes to criminal law literature, by proposing an alternative theory of culpability based on emotion. The theory I propose contrasts with the dominant understanding of culpability which, as will be made plain in the thesis, is markedly cognition-based. Admittedly, there have been attempts in the past, on the part of some criminal law scholars from different legal systems - espousing a more subjectivist approach to criminal responsibility- to include emotion and “morality-drenched” components in the substance of culpability, and thus in culpability notions. However, these attempts never went very far. This thesis draws upon and extends some scholars’ past attempts to attribute a relevant role to emotions in culpability through the development of an alternative, emotion-oriented general theory. The added value of this thesis is that this alternative account of culpability builds on (neuro)scientific knowledge. This, however, does not mean that this thesis attributes a normative value to neuroscience. It simply means that it will use neuroscience as a tool to support the validity of an alternative theory of culpability based on emotion. So far, criminal law has used other kinds of non-legal knowledge - e.g., folk psychology, or moral philosophy- to fill the contents of its notions, and to found its theories. This, however, did not imply attributing normative value to this kind of external, non-legal knowledge. The same reasoning applies to neuroscience. Of course, an emotion-oriented theory of culpability could hinge on other scientific and non-scientific disciplines that acknowledge the role of emotion in moral behavior. Yet this thesis is primarily concerned with neurolaw, it aims at experimenting a hypothetical way by which criminal law can communicate with this specific scientific branch.

That said, and before getting to the core matter of the thesis, some preliminary caveats are necessary. As said, this thesis is meant to investigate the potential impact of neuroscience on criminal law by testing theoretical assumptions underlying the doctrine of culpability against neuroscientific knowledge about the sources and structure of moral, and antisocial, decision-making processes and behavior. In a nutshell, this thesis aims at incorporating said neuroscientific

findings in the criminal law's assumptions about rational, and notably criminal, behavior. Based on this incorporation, this thesis aims at developing an alternative theory of culpability.

For the task at hand, this thesis will draw connections between higher (folk psychological) levels of evaluating the ascriptions of culpability and lower (neurobiological) levels underlying these ascriptions. Hence, this thesis does not endorse a "mechanistic type of explanation"<sup>18</sup> of human behavior, even though it relies upon an understanding of its underlying mechanisms, as seen through the lens of neuroscience. Indeed, the fundamental premise is that the relevance of neuroscientific findings lies in their impact on reasoning mechanics and decision-making conditions required of agents, and not on their purely causal roles.

Admittedly, brain mechanisms do not account alone for an individual's (lack of) culpability. Yet these physical realities are integral to a discussion of culpability if they contribute to the capacities and internal states necessary to be culpable. In other words, although science cannot answer questions of culpability and responsibility, it can still answer questions about the bedrock of responsibility, i.e. human behavior. As Mobbs et al. note, "determining criminal responsibility is a normative legal conclusion, not an empirical factual one, made in the context of a variety of often conflicting aspirations. [Thus] even the best neuroscientific study can only afford factual evidence to be weighed alongside normative considerations, rather than actually resolve the legal question as to which the factual evidence is relevant".<sup>19</sup> I agree with Mobb's statement. The fact that science, and especially neuroscience, cannot replace the normative character of criminal law - which seems to me quite obvious- does not entail its radical 'uselessness' in criminal law theory. In this regard, I find Patricia Churchland's approach quite correct. Roughly speaking, Churchland interprets the (hypothetical) "*mind as brain*" relation to criminal responsibility in terms of setting the parameters of criminal responsibility by looking *also* at the brain

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<sup>18</sup> Stephen J. Morse, 'New neuroscience, old problems' in B. Garland (ed) *Brain, Mind and the Scale of Justice* (Dana Press 2004) 157-198.

<sup>19</sup> Dean Mobbs et al., 'Law, responsibility, and the brain' (2007) 5(4) PLoS Biology e103.

mechanisms that underpin decision-making processes discovered by neuroscientific studies.<sup>20</sup>

Stemming from Churchland's position, I believe that what a neurolegal scholar should do is precisely to embrace neuroscientific theories to correct those assumptions accepted by criminal law that call for substantial revision. Once again, this does not mean endorsing a "mechanistic type of explanation" of human behavior, but rather using critically neuroscientific knowledge to revise flawed legal notions. To put it differently, this thesis does not exhibit a "Brain Overclaim Syndrome", using professor Stephen Morse's famous expression,<sup>21</sup> but simply wants to provide a hypothetical account on how neuroscience might intersect the law, and how the law might use neuroscience to improve its tenets. The neuroscientific revolution in the law is not accepting that brain mechanisms are direct causes of human behavior. Rather, the neuroscientific revolution in the law consists of making wise, and careful use of the valuable information that neuroscience can offer to the law, and thus trying to correct flawed legal assumptions about human thought and behavior that call for improvement. If neuroscience provides adequate evidence that can aid the law in improving its way of understanding and evaluating human behavior, it would be unethical not to use this knowledge. This, for me, is the real (added) value of neuroscience in the law, and this is the hope that motivated my research during the last four years.

#### IV. OUTLINE AND STRUCTURE OF THIS THESIS

The present work draws upon three hypotheses:

- 1) Criminal law's intellect-based view of rational behavior, law-abiding and criminal alike, is limited in its ability to assess an individual's culpability;

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<sup>20</sup> See Patricia Churchland, 'Moral decision-making and the brain' in Judy Illes (ed) *Neuroethics: Defining the Issues in Theory, Practice, Policy* (Oxford University Press 2006), ch. 1. For a critical comment against Churchland's position, see Michael Pardo & Dennis Patterson, *Minds, brains, and law: The conceptual foundations of law and neuroscience* (Oxford University Press 2013), 33-39.

<sup>21</sup> See, e.g., Stephen J. Morse, 'Brain Overclaim Syndrome and criminal responsibility: A diagnostic note' (2006) 3 *Ohio State Journal of Criminal Law* 397.

- 2) Neuroscience can provide criminal law with useful information about the actual mechanisms that undergird moral decision-making and antisocial behavior;
- 3) The integration of neuroscientific teachings in the legal assumptions about rational behavior, both law-abiding and criminal, provides the notion of culpability with more accurate mental foundations that allow for a better evaluation of an individual's blameworthiness, and therefore of his overall culpability.

To develop these three hypotheses, the present thesis is divided into two 'macro-parts'.

**Part One ("Towards an Emotion-oriented General Theory of Culpability informed by the Neuroscience of Moral Decision-Making and Antisocial Behavior")** depicts an alternative emotion-oriented theory of culpability in light of the neuroscience of moral decision-making and antisocial behavior. More specifically, Part One aims at contrasting the traditional criminal law's intellectualist view of the mental foundations of culpability with the neuroscientific insights into the role of emotion in moral decision-making processes, and antisocial behavior. It then revises the traditional mental foundations of culpability with said neuroscientific knowledge, and provides an argument for rethinking the general notion of culpability by including emotions in its relevant psychological set. For the tasks at hand, the Part is divided into Three Chapters.

**Chapter One ("The Rationalist Soul of Culpability: Tracing the Intellect-based Model of the Legally Relevant Mind")** traces the current state of the art of the doctrine of culpability. More specifically, it canvasses the mental traits that characterize the model of the "culpable agent", i.e. the ideal agent who possesses specific legally required mental traits that make him potentially culpable. I shall refer to these relevant mental traits as the "Legally Relevant Mind". Through the analysis of rules, standards, as well as judicial and scholarly interpretations of culpability-related doctrines - both in civil law and common law systems-, the central claim of this Chapter is that criminal law holds a strong rationalist view of

rational thought and behavior, law-abiding and criminal alike, and thus grounds the evaluation of culpability in only cognition-based mental states and capacities. On the whole, the Chapter highlights that the only ‘mental sphere’ making up the “Legally Relevant Mind” is cognitive intelligence. It is cognitive intelligence that allegedly guides an individual’s knowledge, or understanding of either the factual, or moral significance of his actions (i.e., the cognitive prong of culpability), as well as his wilful choice to act upon his antisocial impulses (i.e., the volitional prong of culpability). The Chapter concludes with an argument that calls into question the accuracy of the rationalist tenets of culpability, and thus sets the stage for the analysis of neuroscientific literature about moral decision-making processes, and antisocial behavior, which is conducted in the following Chapter.

**Chapter Two (“Emotions, Cognition, and the (Im)Moral Brain: A Review of Neuroscientific Literature about Moral Decision-Making Processes and Antisocial Behavior”)** reviews neuroscientific, and neurocriminological literature about the cerebral correlates of moral decision-making and antisocial behavior. The relevant information emerging from the analysis of said literature is that emotions - both basic and moral- are fundamental components of our rational thought, including moral and antisocial dimensions alike. On the contrary, cognitive intelligence alone cannot produce morally rational decisions, and thus behaviors, without emotional influence. Moral decision-making is significantly informed by our emotions, which, when coupled with cognitive functions, give rise to our rational, and morally appropriate behavior in a given social context. The neuroscientific insights into emotion, cognition, and moral decision-making, are supplemented by findings from neurocriminology about the neural correlates of different kinds of antisocial behavior. Findings in neurocriminology suggest that a considerable number of antisocial traits, possibly resulting in antisocial conduct, are associated with dysfunctions in the same socio-emotional circuits that are positively correlated with moral judgments and decision-making. On the whole, the investigation into the neural correlates of moral decision-making processes highlights that emotion - not only cognition- is a critical component of decision-making, and thus crucially contributes to our moral and antisocial choices.

**Chapter Three (“Culpability Reconceived: A Proposal for an Emotion-oriented General Theory informed by the Neuroscience of Moral decision-making and Antisocial Behavior”)** is central to the scope of this thesis. Here the investigation moves to incorporate the neuroscientific insights into moral decision-making and antisocial behavior in the mental foundations of culpability, and offers an argument for rethinking the general notion of culpability by including emotions in its relevant psychological set. After correcting some flawed legal assumptions about the mental sources of rational thought and behavior with the aid of neuroscience, the Chapter turns to provide an alternative model of the Legally Relevant Mind (and thus of an alternative paradigm of the culpable agent) featured by the inclusion of emotions in its relevant substance. Based on a new model of the Legally Relevant Mind, and thus on revised mental foundations of culpability, the Chapter argues that a more accurate general notion of culpability should be reconsidered by “situating” its understanding in the mental processes that undergird and guide moral decision-making and antisocial behavior. In so doing, the notion of culpability would truly reflect the blameworthy essence of the mental states (i.e. states of mind expressing an individual’s lack of concern for community values) guiding an individual’s practical moral reasoning up to criminal behavior. Also, the reconsideration of the notion of culpability with the aid of neuroscientific assumptions about emotions, moral decision-making, and antisocial behavior finds its normative rationale in a strict interpretation of the principle of personal guilt. More specifically, the Chapter argues that an actual personalist notion of culpability should reflect all mental dynamics that underlie the decision sequence leading up to criminal conduct. Integrating this understanding of culpability with insights into emotions and moral decision-making would meet this need to a considerable extent.

**Part Two (“Testing the Developed Emotion-oriented Theory of Culpability on Legal Doctrines: Criminal Intent, Insanity, and Diminished Capacity as Cases Studies”)** tests the afore-developed alternative theory of culpability based on neuroscience against specific culpability doctrines, i.e. the *mens rea* state of

intent, insanity, and diminished capacity (the latter is only relevant to common law systems).

**Chapter Four (“Reconceiving Emotions in *Mens Rea*: Criminal Intent as a Case Study”)** measures the effects of the developed theory of culpability on *mens rea*. After providing a brief argument on how an emotion-oriented understanding of culpability might affect the overall substance of *mens rea*, the Chapter focuses its analysis on the *mens rea* state of criminal intent. As will be made plain, the implementation of an emotion-oriented notion of culpability would provoke an expansion of the substance of criminal intent, by including affective states as a third prong of its structure. As emotions in *mens rea* may be translated with the feelings moving an individual to act unlawfully, a reconceived notion of criminal intent - which is the most severe *mens rea* state, and thus expresses an individual’s maximal disdain for legal values-, would be integrated with the feeling of malicious disregard that moves and motivates an individual to act unlawfully, and do harm. Importantly, a corollary of the addition of an emotional component to the substance of criminal intent would be the reconsideration of the role of motives. The role of motives would then come to be viewed as an integral part of the substance of criminal intent, and would therefore be considered in the evaluation of criminal responsibility - not only for sentencing purposes.

**Chapter Five (“Towards New Models of Insanity [and Diminished Capacity]”)** tests the developed emotion-oriented theory of culpability on substantial capacity doctrines, namely insanity and diminished capacity (the latter is only relevant to common law systems). In order to provide a more comprehensive frame, the analysis will be contextualized against two different legal cultures, namely Italy - representative of civil law systems- and the USA - representative of common law systems-, to compare how the developed alternative general understanding of culpability might affect these two legal systems differently. The impact of a general theory of culpability on insanity doctrine cannot be generalized, for the implications for one legal system might be much more or much less significant compared to another. Overall, the analysis highlights that the implementation of an emotion-oriented notion of culpability

would provoke an expansion of insanity tests. More specifically, insanity tests would become tripartite, i.e. inclusive of emotional, cognitive, and volitional prongs. The emotional prong would equate to an emotional capacity test - i.e. a test measuring the defendant's capacity to feel the moral significance of his conduct. The cognitive prong would equate to an intellectual capacity test - i.e. a test measuring the defendant's understanding of the factual and moral meaning of his conduct. The volitional prong would equate to a control test - i.e. a test measuring the defendant's capacity to control his impulses. Importantly, the volitional prong would be reconsidered to include emotion within its relevant substance. Also, the volitional prong would be distinct and autonomous from the cognitive one.

While in the Italian, and more generally in civil law systems, the revision of insanity would be equal for both total and partial insanity (the only difference being merely quantitative), in the US system - and, more generally in common law systems- the reconsideration of insanity through the inclusion of emotions would provoke a rethinking of the relationship between insanity and the diminished capacity doctrine. More specifically, the difference between insanity and diminished capacity would turn out to be purely quantitative, and diminished capacity would get transformed into a "generic partial excuse" doctrine, thereby supporting the validity of professor Stephen Morse's argument about introducing this doctrine in American criminal law.

The dissertation concludes with a summary and a commentary of the investigative results of this research. It also analyzes the potential implications that its findings might have on other culpability-related doctrines, as well as on sentencing and adjudication, and ultimately on justice approaches. These issues will hopefully form the subject matter of future research. Much work is still ahead of me, and I truly hope I will be able to explore these issues in completion of this work in the next steps of my academic career.



## Part One

### Towards an Emotion-oriented General Theory of Culpability informed by the Neuroscience of Moral Decision-Making and Antisocial Behavior

#### Abstract

*This Part proposes an alternative theory of the mental foundations of culpability, developed through the integration of neuroscientific insights into moral decision-making processes, and antisocial behavior in its relevant psychological set. After illustrating the meaning of culpability, Part One provides a careful description of the criminal law's ideal model of the culpable agent, with special focus on the intellectual connotations of his mental traits - which I refer to as the Legally Relevant Mind (Chapter One). By and large, criminal law assumes that the ideal culpable agent is a rational, calculating actor. The legal understanding of rationality embraces the fusion of two faculties: cognition and volition. The mental makeup that is presumed to be found in both cognitive and volitional faculties is entirely intellect-based. In fact, by holding a strong rationalist view of human behavior - law-abiding and criminal alike-, criminal law posits that the relevant psychological set behind rationality only embraces the intellectual-cognitive sphere of the mind, and rules out other mental spheres - in particular the emotional sphere. On the whole, the traditional model of the Legally Relevant Mind - and thus of the relevant mental faculties underpinning the legal notion of culpability - rests on only one sphere, i.e. cognitive intelligence. However suitable and coherent, the orthodox model of the Legally Relevant Mind, and thus the mental foundations of culpability, contrast with the huge body of neuroscientific literature about the cerebral processes underpinning moral decision-making (Chapter Two). Studies on the brain show that moral decisions are the product of emotional and cognitive processes, which together inform our choices. In particular, neuroscientific disciplines emphasize that emotions play a crucial role in either informing, or hindering, our moral decisions, and behaviors. The preponderant role of emotions in moral decision-making is further confirmed by the findings of neurocriminology. The growing body of literature about the neurobiological variables that are associated with antisocial conduct has so far shown that the most common cerebral denominator within antisocial, or criminal, populations appears to lie precisely in disruptions in the same brain circuits responsible for emotional processing in moral judgments, and decision-making. Like moral behavior, criminal behavior is now also understood as significantly emotion-influenced rather than solely intellect-driven. In view of the inaccuracies of the traditional model of the Legally Relevant Mind, Part One turns to correct its flawed rationalist assumptions about law-abiding, and criminal behavior with the aid of neuroscientific insights into emotions and moral decision-making (Chapter Three). More specifically, it provides a model of the Legally Relevant Mind in which emotional, cognitive, and volitional spheres play an equally important role in determining culpable choices. Hence, it revises the substance of the mental foundations of the notion of*

*culpability by including emotions and affective states. Not only does the incorporation of neuroscientific insights into moral processes provoke an expansion of the legal-psychological set of culpability, but it also expands its overall notion. In fact, the new notion of culpability embraces the overall quality of the criminal deliberation, including affective aspects of the practical reasoning leading to the criminal choices, as well as the feelings about engaging in criminal conduct, and possibly causing social harm.*

# Chapter One

## The Rationalist Soul of Culpability: Tracing the Intellect-based Model of the Legally Relevant Mind

*“The law is reason free from passion”*  
Aristotle

### I. INTRODUCTION: THE CURRENT CONCEPTION OF CULPABILITY BETWEEN DESCRIPTIVE STATES AND NORMATIVE ESSENCE

Culpability represents the most exalted expression of criminal law. The ancient maxims *actus no facit reum nisi mens rea* and *nullum crimen, nulla poena sine culpa* state the fundamental principle that an act does not make a person guilty of a crime, unless his mind is also guilty.<sup>1</sup> Culpability thus forms the ultimate criterion for the assessment of criminal responsibility.

Though crucial, the doctrine of culpability is quite controversial, for its substance proves somehow ambiguous. As one commentator notes, the term ‘culpability’ is used interchangeably both narrowly and broadly.<sup>2</sup> In the narrow sense, culpability equates to “the particular mental state provided for in the definition of the offense”.<sup>3</sup> In this sense, culpability appears to be limited to the mere psychological relationship - in the terms of

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<sup>1</sup> The only exception to the *mens rea* doctrine is criminal strict (or absolute) liability, as is provided for in common law systems. However, the strict liability regime applies very rarely and only to particular offenses (e.g. statutory rape in the US system). Criminal strict liability has been abolished or declared unconstitutional in the vast majority of civil law systems. See, for example, Italian Corte Costituzionale n.384/1988 (1989) *Foro.it I*, c.1378; see also the reformed text of Art. 18 StGB (German Criminal Code).

<sup>2</sup> Joshua Dressel, *Understanding criminal law* (4th edn, LexisNexis 2006), 126-128.

<sup>3</sup> *id.* 127.

internal, descriptive mental states - between the crime and its author<sup>4</sup>. Prominent theorists insist that criminal culpability consists entirely and exclusively of intentions toward the material elements of an offense.<sup>5</sup> Therefore, criminal responsibility only embraces a wrongful act committed with a specific subjective state required by the relevant legal proviso.

In the broad sense, culpability is instead synonymous with blameworthiness.<sup>6</sup> According to this conception of culpability, guilt for an offense is not dependent on proof of a specific mental state, but rather on the fact that the actor's choice is overall blameworthy. In other words, culpability is insensitive to the actual mental state with which the offense is committed. Rather, culpability consists of the overall blameworthiness of an offender's criminal choice, revealing the offender's disregard for social, moral and legal values.

The tension between these two different understandings of culpability is emphasized by George Fletcher.<sup>7</sup> For Fletcher, culpability in the narrow sense reflects the descriptive grammar apparently used in criminal codes, but culpability is to be understood in its broad meaning, as *pure* blameworthiness. Fletcher clearly endorses a normative conception of culpability, for it provides a far more suitable account of what counts as culpable, beyond the singular legally required mental state. As he writes: "If *mens rea* refers not to a specific subjective state, but to an actor's blameworthiness in acting as it does, then there might be logically a way to establish personal culpability without referring to a state of mind".<sup>8</sup> Moreover, the criticism Fletcher directs towards the narrow, descriptive notion of culpability is that it suffers from the considerable limitation, among others,<sup>9</sup> of unduly excluding from its structure fundamental

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<sup>4</sup> The 'narrow' conception of culpability has been *in auge* for a long time also in the European criminal law tradition, under the name of 'psychological culpability'; see Stefano Canestrari et al., *Manuale di Diritto penale. Parte generale* (Il Mulino 2007), 578.

<sup>5</sup> See, e.g., William Glanville, *Criminal law: The general part* (2nd ed. Stevens & Sons, Ltd. 1961), 102-103.

<sup>6</sup> Dressel n. 2, 126.

<sup>7</sup> George Fletcher, *Rethinking criminal law* (Little Brown Company 1978) 532-545; George Fletcher, *The grammar of criminal law: American, comparative and international, Vol. One: Foundations*, (Oxford University Press 2007) ch. 8, 298-329.

<sup>8</sup> George Fletcher, 'The theory of criminal negligence: A comparative analysis' (1971) 119:3 *University of Pennsylvania Law Review* 401, 414.

<sup>9</sup> The second significant limitation of the descriptive view of culpability regards 'negligence'. Roughly, Fletcher argues that while intention is a *real mental state*, negligence is a mere legal construct, which is

components, like excuses, mitigating conditions, or even the significance of motive. In particular, Fletcher argues, excuses like insanity or duress, would count just as “a ‘new matter’ proposed by the defendant in an effort to escape punishment”,<sup>10</sup> but they would not be considered in the assessment of responsibility. The normative notion of culpability, instead, qualifies excuses as crucial (negative) components of blameworthiness; therefore, the presence of an excusing condition is sufficient to negate the agent’s blameworthiness, and thus his responsibility.<sup>11</sup>

However more expansive than the descriptive account it may be, a purely normative conception of culpability actually denies its personalist rationale. A truly personalist evaluation of culpability, indeed, must also consider the ‘descriptive aspects’ that underlie blameworthiness. In other words, culpability cannot only encompass blameworthiness, but also the subjective mental states and the underlying decision-making processes that lead to the adoption of a blameworthy choice. Put this way, a more normatively plausible and exhaustive notion of culpability would equate culpability to the blameworthiness of a given state of mind that moved the actor to commit a criminal wrongdoing.

Building on the same line of criticism, Kimberly Ferzan proposes a “holistic” account of culpability.<sup>12</sup> For Ferzan, “there is a constitutive relationship between internal states of the actor and our assessment of blameworthiness. Our evaluation that someone is culpable is a determination that a person’s action revealed insufficient concern for the interests of others, and to make this assessment we need to know the mechanics and the quality of the agent’s reasoning”.<sup>13</sup> Put it this way, the assessment of culpability requires an analysis of practical reasoning and decision-making conditions underlying any blameworthy state of mind. It is precisely “the sum of these parts that gives rise to the normative judgment about whether the actor’s reasoning gave due regard to the interests of others”,<sup>14</sup> i.e. whether it is blameworthy or not.

While I endorse Ferzan’s holistic account of culpability as the most accurate, I

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not directly referred to a concrete mental substrate. Only a normative theory of culpability might then justify negligence. See Fletcher, *The grammar of criminal law*, 312-314.

<sup>10</sup> Fletcher, *Rethinking criminal law*, 540.

<sup>11</sup> *ibid.*

<sup>12</sup> Kimberly Kessler Ferzan, ‘Holistic Culpability’ (2007) 28:6 *Cardozo Law Review* 101.

<sup>13</sup> *id.* 110.

<sup>14</sup> *id.* 121.

acknowledge that it implies crucial questions that require careful and detailed elaboration. Specifically, which mental elements does criminal law consider to evaluate the moral quality of an agent's practical reasoning about whether or not to act in breach of socially protected values? What are the capacities that criminal law expects an agent to possess to be eligible for culpability? What are the essential mental features that make an agent *blameworthy* when he commits an *actus reus*? Which sphere of the mind does criminal law consider at the core of culpability doctrines? Who is the "culpable agent"?<sup>15</sup> Do the current standards and criteria of criminal law ultimately satisfy this conception of culpability?

The present Chapter investigates these very issues. More specifically, by using the afore-illustrated 'holistic' model of culpability as a normative benchmark, the Chapter provides a careful examination of the psychological framework of the ideal culpable agent that criminal law assumes in its current model of criminal responsibility. More specifically, the Chapter analyzes the psychological tenets of the Legally Relevant Mind, namely the relevant legal-psychological makeup featuring the paradigm of the culpable agent, and that therefore founds the current conception of culpability.

The Chapter is structured as follows. It begins with the illustration of the mental features of the model of the culpable agent assumed by criminal law, with special focus on the criminal law's assumptions about the mental conditions of rationality (Section II). The analysis continues with an argument showing that contemporary criminal law embraces an intellectualist understanding of rational behavior - law-abiding and criminal alike-, according to which rational behavior is the result of instrumental reasoning and calculation, and is entirely (cognitive) intellect-governed (Section III). More specifically, the Chapter demonstrates that criminal law tacitly assumes that the only mental source of rationality in the legal domain is cognitive intelligence. In fact, as the analysis of normative texts, judicial decisions, and legal scholarship of both civil law and common law systems - with particular focus of the Italian and the US systems - clearly demonstrate, the criminal law's view of cognitive intelligence as the sole relevant mental source of rationality is perfectly reflected in the substance of the two

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<sup>15</sup> The paradigm of the culpable agent designates the criminal law's model of wrongdoers which is explicitly or implicitly assumed in rules and standards pertaining to culpability. More specifically, the paradigm of the culpable agent relates to the mental traits an agent must necessarily possess and act upon, to be held criminally responsible. I shall refer to these mental traits as the "Legally Relevant Mind".

essential mental components of culpability, i.e. cognition (Section III.A) and volition (Section III.B).

In line with the rationalist perspective, the current psychological set of the Legally Relevant Mind does not include the emotional sphere. The last section of the Chapter demonstrates that the mental foundations of culpability, and thus of culpability notions, do not include emotions. The reason is simple and lies in the rationalist assumption that emotions do not contribute to rational decisional processes leading to either law-abiding or criminal choices. Rather, emotions are assumed to be irrational occurrences that are only able to distort reasoning, and hence have no role in guiding decision-making processes, and rational conduct - neither law-abiding nor criminal - as a consequence. Therefore, emotions are not part of the essential substance of culpability.

Having depicted the current model of the Legally Relevant Mind, the Chapter concludes with a proposal for measuring the accuracy of said model against the insights about moral decision-making processes and antisocial behavior offered by behavioral and neuroscientific disciplines. After raising a number of issues concerning both the empirical plausibility and the normative validity of the mental foundations of culpability, the Chapter sets the stage for the development of a neuroscientifically-informed theory of culpability, which will be proposed at a later stage of this thesis.

## II. REASONS AND RATIONALITY: THE LEGAL PARADIGM OF THE CULPABLE AGENT

In the vast majority of Western legal systems, criminal responsibility is shaped on a standardized model of culpable agent. Generally, for an agent to be considered responsible and therefore deserving punishment, he must (have the capacity to) adopt a decision and make a choice against a system of moral and legal values. In other words, the fundamental assumption underlying the ideal of only punishing blameworthy agents is that, virtually, culpable agents are rational actors.

The legal perspective of the culpable agent is grounded in a view of human action as wholly reason-governed. More specifically, criminal law views the person as “a creature

who acts for reasons and is potentially able to be guided by reason”.<sup>16</sup> As the American scholar Stephen Morse observes, the criminal law’s understanding of the person derives from the nature of law itself. If the primary function of law is to guide human behavior, the law cannot but assume that its recipients are capable of understanding and using rules and standards as premises in the practical reasoning that guides their actions.<sup>17</sup> Morse defines rationality as

“the ability to perceive accurately, to get the facts right, to form justifiable beliefs, and to reason instrumentally, including weighing the facts appropriately and according to a minimally coherent preference-ordering. Rationality includes the general ability to recognize good reasons that should guide action. Put yet another way, it is the ability to act for good reasons”.<sup>18</sup>

Yet what does ‘acting for reasons’ exactly mean in the context of criminal law? As certain literature shows, criminal law embodies a dual account of reasons for action: one descriptive, and the other one normative. As for the former, the descriptive account of reasons flows from the criminal law’s folk psychological<sup>19</sup> understanding of human behavior. Recalling again Morse, criminal law accepts a full commonsense-based description of human behavior in terms of mental states, such as beliefs, desires, wills,

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<sup>16</sup> Stephen J. Morse, ‘Rationality and responsibility’ (2002) 74 Southern California Law Review 251, 252.

<sup>17</sup> See Stephen J. Morse, ‘Excusing the crazy: The insanity defense reconsidered’ (1985) 58 Southern California Law Review 777, 783 (“It is easier to assess the rationality of the means an actor chooses to achieve goals because this assessment involves factual beliefs about the world or logical relationships. The inquiry becomes whether instrumental behavior is rationally connected to achieving identified goals. In Aristotelian terms, is the actor a good ‘practical reasoner’?”).

<sup>18</sup> Morse n. 16, 255. Cf. Herbert Fingarette, *The meaning of criminal insanity* (University of California Press 1972), 179-194. Of course, there are many different definitions of rationality. Also, the meaning of rationality depends on the specific field of study, or contexts, where this concept is used. For example, the meaning of rationality varies depending on the fact that it is used in economics, in philosophy, or in political science. To avoid conceptual confusion, it is necessary to point out that this study only considers a legal notion of rationality, one which fits the purposes of criminal law.

<sup>19</sup> By definition, folk psychology is the natural tendency human beings have to express and describe the behavior of others on the basis of the possessing mental states, by using common linguistic terms. Folk psychological accounts of human behavior are entirely embodied in criminal law. See Katrina Sifferd, ‘Translating neuroscientific evidence into the language of the “folk”’ in N. Vincent (ed) *Neuroscience and Legal Responsibility* (Oxford University Press 2010) ch. 8, 191 (observing that “[...] criminal law grounds the assessment of responsibility on behavioral evidence, and behavioral evidence is likely to directly trigger attribution of mental states required by the legal criteria for guilt or not guilt.”).

and plans;<sup>20</sup> therefore, human action is considered as the product of intentions that arise from desires and beliefs of the agent.<sup>21</sup> This view recalls the Davidsonian “desire-belief model of reasons for actions”.<sup>22</sup> Embracing the Humean causal theory of action,<sup>23</sup> Davidson contends that desires (also called “pro-attitudes”) and beliefs form the primary reason why the agent performs a certain action, and thus they are direct and genuine causes of that action. An example might make things clearer. The descriptive reasons-explanation of *why* Mary goes to the café to get a coffee is:

- 1) Mary desires a coffee;
- 2) Mary believes that the *best way* to be certain of having a coffee is going to the café;  
*for these reasons,*
- 3) Mary forms the intention to go to the café; *ergo,*
- 4) Mary goes to the café.

To account for Mary’s action, then, we seek the reason why she acted, the desires and beliefs that formed the practical syllogism that produced her intentional conduct.<sup>24</sup> However seemingly able to rationalize human behavior, the descriptive/folk psychological account of reasons proves insufficient to account for *why* a rational agent acts with regard to criminal law.<sup>25</sup> As Morse himself points out, the legal concept of rationality is primarily normative, in that its meaning depends upon “moral and political judgments about how society should govern itself”.<sup>26</sup> That is, the criminal law being an

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<sup>20</sup> Stephen J. Morse, ‘Avoiding irrational neurolaw exuberance: A plea for neuromodesty’ (2011) 62 Mercer Law Review 837, 839.

<sup>21</sup> Stephen J. Morse, ‘New neuroscience, old problems’ in B. Garland (ed) *Brain, Mind and the Scale of Justice*, (Dana Press 2004) 157, 160.

<sup>22</sup> See Donald Davidson, ‘Actions, reasons, and causes’ (1963) 60(23) *The Journal of Philosophy* 685. Cf. Robert Audi, ‘Acting for reasons’ (1986) 95(4) *Philosophical Review* 511; Jon Elster, *Reason and rationality* (Princeton University Press 1940).

<sup>23</sup> For Hume, actions should be understood in terms of desires and beliefs, and therefore, reasons that motivate people should be understood as combinations of desires and beliefs. See David Hume, *A treatise of human nature*, Selby-Bigge L.A. (ed) (first published in 1738, Clarendon Press 1978).

<sup>24</sup> Davidson n. 22, 690 (“In light of a primary reason, an action is revealed as coherent with certain traits, long or short-termed, characteristic or not, of the agent, and the agent is shown in his role of Rational Animal”).

<sup>25</sup> Christine M. Korsgaard, ‘Acting for a reason’ in *The Constitution of agency. Essays on practical reason and moral psychology* (Oxford University Press 2008) ch.7, 208.

<sup>26</sup> Morse, n. 16, 254.

instrument of an axiologically informed representation of reality, then the legal meaning of “rational” genuinely refers to how agents *ought* to think, decide and act - or not act - to achieve the goals that criminal law prescribes. Therefore, for a reason to count as relevant in the context of criminal law, it needs necessarily to take on normative connotations. In the normative sense, reasons can be defined as “facts in virtue of which the action is good, and these facts need not be limited to the desirability of the goal that are achieved through action, but may concern intrinsic properties of the action itself”.<sup>27</sup> Therefore, one is motivated by the awareness or belief that certain facts constitute *good-making properties* of the action.<sup>28</sup>

As one can easily deduce, the good reasons an actor *ought* to respond in the context of criminal law are normative reasons that reflect the moral values and standards of the legal context in which the actor lives.<sup>29</sup> This view is also shared by Douglas Husak who, in his “*Broad Culpability and the Retributivist Dream*”, assumes without argument that reasons to which persons must respond in order to become eligible for blame and punishment are indeed *moral reasons*.<sup>30</sup> According to Husak, responding to reasons does not solely mean “ability to conform to moral reasons”,<sup>31</sup> but also to “understand the special motivating force of moral reasons”.<sup>32</sup> Similarly, David Brink and Dana Nelkin claim that an agent is more or less responsive to reasons depending on “how well her judgment about what she ought to do and her choices would track her reasons for action”.<sup>33</sup>

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<sup>27</sup> Korsgaard n. 25, 212 (“The mental states do not provide motivational force of the reason; rather, they are simply identified third-personally as the appropriate response to the normative and motivational force of the reason.”).

<sup>28</sup> See Joseph Raz, *Engaging reason. On the theory of value and action* (Oxford University Press 1999) 63 (“Wants [...] are not reasons for action [...] A want can never tip the balance of reasons in and of itself [...] My wanting something does not make it good or valuable and is therefore not a reason for action”).

<sup>29</sup> See Herbert Fingarette & Ann Fingarette Hasse, *Mental disabilities and criminal responsibility*, (University of California Press 1979) 224-225 (claiming that “among members of a community there is a certain valuational ‘background nexus’ of basic perception and basic values. [Therefore] the basic factual presumption that underlies our expectation that people should deliberately [act lawfully] is that each individual in the community shares in a practical awareness of this background-nexus of basic perceptions and basic values.”).

<sup>30</sup> Douglas Husak, ‘ “Broad” culpability and the retributivist dream’ (2012) 9 *Ohio State Journal of Criminal Law* 449, 465.

<sup>31</sup> *id.*

<sup>32</sup> *id.*

<sup>33</sup> David O. Brink, Dana K. Nelkin, ‘Fairness and the architecture of responsibility’ in David Shoemaker, *Oxford Studies in Agency and Responsibility Vol. 1* (Oxford University Press 2013) ch. 12, 291.

Based on these explanations, it appears more correct to claim that criminal law assumes the ideal culpable agent to be a *practical moral reasoner*, whose reasoning is guided by normative (or moral) considerations about what ought or not ought to do.<sup>34</sup> In a nutshell, the culpable agent is assumed to (be able to) reason about facts as they relate to either social, moral, or legal norms.

Stemming from this understanding of practical moral reasoning, it is now necessary to see which mental traits the criminal law requires an agent to possess to qualify as a practical moral reasoner. In other words, which mental features the criminal law requires in order to characterize an individual's practical reasoning in normative contexts.

The legal idea of rationality as (moral) reasons-responsiveness that permeates the mental substance of culpability is strictly tied up to the assumption that a wrongdoer is conscious of the reasons to act in a given, unlawful way, and chooses to act accordingly. This assumption lies at the bottom of both substantial capacity conditions - namely, the general mental capacities necessary for criminal responsibility - and *mens rea* states. As with substantial capacity, rationality *qua* capacity for reason-responsiveness is what H.L.A. Hart called "capacity-responsibility".<sup>35</sup> For Hart, capacity-responsibility consists of "*understanding, reasoning and controlling conduct*: the ability to understand what conduct legal and moral rules require, to deliberate and reach decisions concerning these requirements; and to conform to decisions when made".<sup>36</sup> As has been made plain, this passage emphasizes that the legally relevant capacities include *understanding, reasoning and controlling conduct*.

Endorsing a hybrid version of character-based<sup>37</sup> and choice-based<sup>38</sup> theories of criminal responsibility, Antony Duff similarly holds that "someone who is to be held

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<sup>34</sup> Practical Moral reasoning is a species of practical reasoning and consists of a reasoning about what an individual should do or think as a practical matter. See Henry Richardson, 'Moral reasoning' in E. Zalta (ed), *Stanford Encyclopedia of Philosophy* (Winter 2014), URL= <<https://plato.stanford.edu/entries/reasoning-moral/>> accessed 13 January 2016.

<sup>35</sup> Hart is the most prominent supporter of the capacity theory, i.e. a theory of criminal responsibility that grounds the essential attributes for being a culpable agent in specific general capacities. See Herbert L. A. Hart, *Punishment and responsibility: Essays in the philosophy of law* (Oxford University Press 1967).

<sup>36</sup> *Id.*, 227; similarly, Joseph Raz talks about "capacity-rationality", i.e. "the capacity to perceive reasons and to conform to them [...] and their appropriateness in different context". See Raz n. 28, 68.

<sup>37</sup> Character-based theory grounds criminal responsibility, indeed, on character. See Michael Bayles, 'Character, purpose, and criminal responsibility' (1982) 1 *Law & Philosophy* 5, 7 ("Blame and punishment are not directly for acts but for character traits. On this view, "character trait" [...] refers to

responsible for his choices must at least be capable of *recognizing* the relevant empirical aspects of his actions and its circumstances, and of *foreseeing* its consequences; he must also have the kind of ‘instrumental rationality’ which enables him to *determine* which actions will serve whatever ends he has”.<sup>39</sup> Here Duff essentially claims that people are to be provided with a sufficient degree of instrumental rationality that enable them to *understand* the factual meaning and the consequences of their actions, as well as which action might let them achieve the purposes they want to achieve. Elsewhere,<sup>40</sup> Duff argues that *control* too is an essential prerequisite of criminal responsibility. Control, according to Duff, “is a matter of rational capacities: thus I have control over my actions insofar as I have the capacities necessary to recognize reasons and guide my actions by them, insofar as I am capable of engaging in practical reasoning and of actualizing its results.”<sup>41</sup> In a nutshell, paraphrasing Duff’s thought, the key to criminal responsibility is instrumental rationality. Instrumental rationality enables an individual to both *understand* actions (and assess their consequences), and to *control* them. Also in Duff’s view, *understanding and controlling* are understood as the fundamental capacities for criminal responsibility.

The same ‘capacities for criminal responsibility’ are largely codified in the criminal codes of most Continental European systems. In Italy, for example, these capacities are summarized in the legal notion of *imputabilità*. *Imputabilità* can be defined as a *factio iuris* by which Italian criminal law determines the capacities necessary for culpability and punishment. According to Article 85 of the Italian Penal Code:

“No one shall be punished for an act defined by law as a crime if he was not ‘*imputabile*’ at the time he committed the act.

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any socially desirable or undesirable disposition of a person. Acts may or may not indicate character traits. If an act does indicate an undesirable character trait, then blame is appropriate; if it does not, then blame is inappropriate although measures to prevent such conduct in the future might be taken.”)

<sup>38</sup> For choice theorists, a person is culpable when he made a rational and a voluntary choice to commit a wrongful act. See Michael Moore, ‘Choice, character, and excuse’ in E. F. Paul, F. D. Miller Jr. & J. Paul (eds), *Crime, Culpability and Remedy* (Basil Blackwell 1990) 29 [“we are responsible for wrongs we freely choose to do, and not responsible for wrongs we lacked the freedom (capacity and opportunity) to avoid doing.”].

<sup>39</sup> Duff adopts a model of responsibility based in character, but drawing substantially from choice. See Robin Anthony Duff, ‘Choice, character, and criminal liability’ (1993) 12(4) *Law & Philosophy* 345.

<sup>40</sup> Robin Anthony Duff, ‘Who is responsible, for what, to whom?’ (2005) 2 *Ohio State Journal of Criminal Law* 441.

<sup>41</sup> *id.* 456.

A person is “*imputabile*” (adj.) if he possesses *la capacità di intendere e volere* [capacity to understand and to control conduct].<sup>42</sup>

The legal definition of *imputabilità* reflects the idea of the “normal” agent derived from a normative conception of culpability - which grounds the applicability of criminal law rules in the agent’s blameworthiness - that was adopted during the drafting of the Penal Code in 1930. According to this understanding, blameworthiness presupposes that human beings are able to freely form intentions, and to act accordingly. Put this way, the normal agent is assumed to be conscious and free to choose between good and bad, i.e. whether or not to act in breach of criminal law rules. As we can derive from the preparatory works to the Italian Penal Code, Italian criminal law understands the “normal” individual as one who is able to *understand, will, discern, and select* his motives.<sup>43</sup>

Similar understandings of the capacities necessary for criminal responsibility are contained in other European legislations. In Spain, for example, the concept of *imputabilidad* takes on the same meaning as the one assumed in the Italian Penal Code. Although the Spanish Penal Code does not provide for a positive definition of the doctrine of *imputabilidad*, legal scholarship derives its definition from the provision contained in Article 20, paragraph 1 - concerning insanity - which reads

“The following persons shall not be criminally accountable:

1. Those who, at the time of committing a crime, due to any mental anomaly or alteration, cannot *comprehend* the unlawful nature of the act, or *to act in line with that comprehension*. [...]”<sup>44</sup>

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<sup>42</sup> My translation and emphasis. The original text of Art. 85 CP [Ita] reads, “Nessuno può essere punito per un fatto preveduto dalla legge come reato se, al momento della sua commissione, non era imputabile. È imputabile chi ha la capacità di intendere e di volere”.

<sup>43</sup> See Lavori Preparatori del Codice Penale e del Codice di Procedura Penale, Vol.V, Parte I, Tipografia delle Mantellate, Roma, Anno VII (1929) 140.

<sup>44</sup> My translation and emphasis. The original text of the Art. 20 CP (Esp.) reads: “El que al tiempo de cometer la infracción penal, a causa de cualquier anomalía o alteración psíquica, no pueda comprender la ilicitud del hecho o actuar conforme a esa comprensión”. Take, also, the Dutch Criminal Code, Explanatory Memorandum (1886): “No criminal responsibility without accountability of the act to the perpetrator, and no accountability in case either the freedom of acting choosing between doing or not doing what the law prohibits or requires - is excluded or the perpetrator is in such a state that he cannot realise the unlawfulness of his act and cannot calculate its consequences.”; see also Section 20 StGB (German Criminal Code): “He acts without guilt who, at the commission of the act was incapable of

At the *mens rea* level, the substance of the legally relevant mental states is also grounded in the same mental faculties - although they are expressed with a different terminology - as those required for substantial capacity conditions. In fact, regardless of different degrees, all mental states revolve around an actor's *awareness/knowledge/foresight* of the nature and the consequences of his conduct, as well as the *will* of its consequences.

In civil law systems, the general subjective element of the crime (i.e., the *ensemble* of the legally required mental states corresponding to what in common law forms “elemental *mens rea*”) <sup>45</sup> is given by the combination between consciousness (i.e. knowledge, or awareness) and will. In Italian criminal law, for example, consciousness and will form the so-called *suitas*, i.e. the state of belonging of a material offence to the mental domain of the relevant perpetrator. Each legally required mental state - *dolo*, *colpa*, *preterintenzione*- expresses a different degree of *suitas*. That is, the elements of consciousness and will exhibit a different intensity in each legal mental state. The higher the degree of *suitas*, the more an unlawful action ‘belongs’ to the relevant perpetrator, the higher the degree of blameworthiness.

All things considered, culpability is a fusion of the elementary functions of cognitive and conative (volitional) mental states. Of course, cognition and volition play different roles depending on the different doctrines. In substantial capacity doctrines (e.g. insanity), cognition and volition assume the shape of *capacities*. Therefore, culpability requires that a person hold both the cognitive capacity to understand the factual, and sometimes moral, significance of his conduct, and the volitional capacity to choose and control his behavior at the time of the crime. At the *mens rea* level, cognition and volition constitute the mental ingredients of legally required mental states - e.g. intent, recklessness-, albeit in different degrees, species, and gradations.

Cognition and volition being the two essential components of culpability, it is now necessary to investigate what criminal law presumes to be the mental source of these legally relevant faculties. In other words, it is now necessary to focus on the mental

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understanding the wrongfulness of the act or of acting in accordance with this understanding, because of mental illness, a profound, far-reaching disturbance of consciousness or because of mental retardation or because of another severe mental abnormality”.

<sup>45</sup> See Joshua Dressler, *Understanding criminal law* (7th edn, LexisNexis 2015), 186-187.

sphere/s that is/are assumed to give rise to a person's understanding (or knowledge, or awareness) of the nature and the consequences of his conduct, as well as a person's volitional attitude to conform his behavioral choice to this understanding/knowledge/awareness. In brief, the analysis rests on what mental sphere criminal law presumes to be the source of the practical reasoning and decision-making processes which lead a person to *rationaly* opt for criminal conduct. This complex issue demands detailed and careful elaboration. The next section will tackle this complex issue in that spirit.

### III. THE RATIONALISM BEHIND THE PARADIGM OF THE CULPABLE AGENT

Criminal law is deeply rooted in an intellectualistic view of human, and notably criminal, behavior. Under the criminal law's perspective, criminal behavior is the product of an instrumental practical reasoning made by rational, calculating individuals who choose to act for bad reasons. The idea of the criminal man as a calculating, rational actor arose in an age when the scope of criminal law was that of applying Reason to justice. More specifically, the criminal law's intellectualist view of the culpable agent began in the second half of the 18<sup>th</sup> century, when criminal law, and justice, underwent a crucial process of transition thanks to the spread of the principles of the Enlightenment.

As is very well known, the Enlightenment - also known as the Age of Reason- marked a net change of perspective of the relationship between citizens and the State.<sup>46</sup> Man, every single man, became central to the exercise of sovereignty and public powers. Citizens were no longer subject to an absolute State power, but they were finally placed on an equal level as the State, and all actors had to contribute to the making of the welfare of society. The relationship between citizens and the State was assumed to be based upon a "social contract", i.e. a tacit agreement placing mutual obligations on both

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<sup>46</sup> See William Bristow 'Enlightenment' in E. Zalta (ed), *Stanford Encyclopedia of Philosophy* (Summer 2011), URL= < <https://plato.stanford.edu/archives/sum2011/entries/enlightenment/> > accessed 16 April 2017.

parties.<sup>47</sup> On the one hand, the State was empowered by the citizens to represent their will, as well as to guarantee and protect equal rights and freedoms for all. On the other hand, citizens obliged themselves to limit their alleged inborn, absolute, freedom to surrender this freedom and submit it to the authority of the State, and to other fellow citizens.<sup>48</sup> According to social contract thinkers, in the state of nature, people have an absolute physical freedom, meaning that their actions are not restrained in any way. That is, in the state of nature, people are little more than animals, slaves to their own instincts, primordial emotions, and egoistic impulses.<sup>49</sup>

When entering into civil society, people have to sacrifice their absolute, natural freedom. In return for giving up their natural freedom, they are guaranteed civil freedoms, as well as the full entitlement and enjoyment of equal rights. Unlike natural freedom, civil freedoms are tempered by an agreement to respect, and not to harm, other fellow citizens. The respect of other fellow citizens requires that every individual thinks and behaves morally and rationally. In turn, being moral and rational requires men to use their intellectual powers, i.e. their Reason.<sup>50</sup> It is Reason that provides individuals with the necessary rational faculties to think and behave morally, in full respect of the rights of other citizens, and the duties towards the State.

On the whole, we may say that one of the main assumptions underlying the social contract is that Reason, i.e. intellect, is the mental faculty that *fre*es men of their natural

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<sup>47</sup> Thomas Hobbes, Jean-Jacques Rousseau, and John Locke are among the most prominent modern social contract theorists. Each of them provided a different version of the social contract model. See Thomas Hobbes, *Leviathan* (first published in 1651, Penguin Groups 1985), Jean-Jacques Rousseau, *The social contract* (first published in 1762, Penguin Classics 2003); John Locke, *Second treatise of government* (first published in 1689, The Liberal Arts Press 1952).

<sup>48</sup> Hobbes, for example, defined the social contract as “a mutual transferring of rights”. In the state of nature, everybody is born free, everybody has the absolute full right to everything. By virtue of the social contract, every citizen gives up a portion of his/her freedom to give space to another person’s freedom. All contractors give up a portion of their freedom and therefore facilitate living together in a shared space, i.e. society. The contract essentially binds people into a community that exists for mutual preservation. See Hobbes, *id.*

<sup>49</sup> Social contract thinkers’ view differed as with the *state of nature*. Hobbes regards the natural state of man as brutal, nasty and miserable, in which everyone is free to act as they wish and may pose a risk to others’ existence and survival. Rousseau, instead, considers human nature good. In his natural state, man is solitary, but not brutal to others. In this state, man is like an animal, searching for the ways of satisfying himself physically for survival. For that reason, man is not an enemy to his fellow men, but there is a sort of cooperation and collaboration for surviving together. In other words, men are dependent on each other in order to struggle with natural conditions in their environment. Last, according to Locke, the state of nature is a state of complete liberty, in which persons are free to pursue their own interests and plans, and it is relatively peaceful.

<sup>50</sup> For instance, Rousseau believed that only by entering into the social contract can we become fully human.

instincts and primordial emotions, and thus enables them to live in civil society, to enjoy their civil freedom, and to regulate their relationship with the other citizens and the State in compliance with the social contract.

In summary, living in a civil society requires men to withdraw their egoistic instincts, passions, and emotions, which clearly impair their capacity to live together with other men in a civil society, and therefore to start making use of their Reason to think and act rationally and morally.<sup>51</sup> The use of Reason, *qua* mental source of rational thought, is central to moral behavior, and thus to social life.

The process of secularization of the relationship between men and the State also implied a different way of conceiving of crime. Crime (and punishment) underwent a process of rationalization and objectification. Unlike the spiritualist views featuring the criminal justice system during the Middle Age,<sup>52</sup> crime was no longer seen as the product of demonic or supernatural forces, nor was the duty of the state to express God's will by torturing publicly the devil hidden inside the criminal. As men got to be understood as rational creatures who were absolutely able to live in a civil society and be guided by the law, criminal behavior was seen as simply as a free-willed, rational choice to act in breach of the social contract, and thus to violate socially protected values.<sup>53</sup>

These rationalist tenets about human, and criminal behavior, form the building blocks of the first school of criminal law and criminology that was born in the second half of the 18<sup>th</sup> century, the so called Classical School.<sup>54</sup> Classical thinkers placed an *absolute* presumption of rationality either on law-abiding and criminal individuals (distinction

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<sup>51</sup> For a solid criticism of the relationship between freedom and Reason, as was sustained by social contract theorists, see Isaiah Berlin, 'Two concepts of liberty' in *Four essays on liberty* (Oxford University Press 1969).

<sup>52</sup> As an emblematic, infamous example of Medieval spiritualistic view of crime, see e.g., Heinrich Kramers & James Sprenger, *The Malleus Maleficarum* (transl: *The Hammer of the Witches*), Montague Summers (transl) (first published in 1486, Dover Publications 1928-1948). This manuscript served as a guidebook for Inquisitors, and was designed to aid them in the identification, prosecution, and dispatching of Witches.

<sup>53</sup> Matthew O'Hare, *The history of the pleas to the Crow, Vol.1* (In the Savoy 1736) 14-15. ("Man is naturally endowed with two great faculties, understanding and liberty of will [...] the liberty or choice of the will presupposeth an act of the understanding to know the thing or action chosen by the will [...]"). Two centuries later, the USA Supreme Court famously observed in *Morissette v. United States* [1952] 342 U.S. 246: "The contention that an injury can amount to a crime only when inflicted by intention [...] is as universal and persistent in mature systems of law as belief in *freedom of the human will* and a *consequent ability and duty of the normal individual to choose between good and evil*". (My emphasis)

<sup>54</sup> See Clarence Ray Jeffrey, 'The Historical Development of Criminology' (1959-1960) 50(1) *Journal of Criminal Law and Criminology* 3.

was not even made between adults and children). Criminal decision was nothing more nor less than a normal, free, rational decision to act in breach of social values, protected by the law. Criminals were thus assumed to be rational beings, who perfectly know what they do, and freely choose to break the law for pure self-interest.<sup>55</sup>

In a nutshell, all human beings are born equal natural thinkers provided with intellectual powers. Therefore, antisocial behavior is to be treated as solely as a violation of a legal norm, not as a peculiar empirical phenomenon to possibly explore. Therefore, under the classical thought, crime is considered as a pure legal entity, a normative artifact created to punish behaviors that are in contrast with and disruptive of the legal order.

The most prominent representative of the Classical school of criminal law was the Italian lawyer and criminologist Cesare Beccaria.<sup>56</sup> Like any Enlightenment thinker, Beccaria expressed a fundamental faith in the power of Reason *qua* source of rational thought. The main postulates of Beccaria's theory of crime were that, first, human nature is rational, free and governed by self-interest. Therefore, man's behavior is purposive and rational, and is based on hedonism or pleasure-pain principle. That is, man consciously chooses pleasure and avoids pain. Those who commit crimes do so only because their self-interest prevails over the common sense of morality and the common good. According to Beccaria, the main focus of criminal responsibility had to be the material offence. Little attention had to be given to the criminal, to his background and motivation to engage in criminal conduct.<sup>57</sup> As long as a person committed a crime consciously and willingly, i.e. rationally, the only real concern of criminal responsibility had to be the criminal act, while any further subjective inquiry into the perpetrator was unnecessary.

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<sup>55</sup> See J. M. Canals, 'Classicism, positivism, and social defense' (1959-1960) 50 *Journal of Criminal Law and Criminology* 541, 543 (while discussing Classical penal law, he writes, "[A]ll men live under the empire of reason, that is his conduct results from the conscious operation of his will after a process of conscious reflection and choosing among alternatives of action.").

<sup>56</sup> See Cesare Beccaria, *Dei delitti e delle pene* (first published in 1764, Mursia 1973).

<sup>57</sup> See Canals n. 55, 543 ("While Classicism is most emphatic in requiring a degree of moral guilt - a *mens rea*- before criminal liability is incurred, the fact is that the mental element was not carefully studied by the luminaries of that school, nor was the time ripe for a depth understanding of the workings of the human psyche. Having considered all men as identical integers in a natural equation, the Classical school turned to the scrutiny of the acts reus, and its contribution to legal science in this field is immense.").

Though the most influential and powerful, Beccaria was not the only thinker of the Classical School. On the British side, political philosopher Jeremy Bentham supported a more marked utilitarian conception of criminal law, criminal behavior, and criminal punishment, compared to the one proposed by Beccaria.<sup>58</sup> Bentham thought that human beings are hedonistic and act only in their own self-interest. For Bentham, criminal behavior is guided by an individual's greater interest to maximize his own pleasures, and minimize his own pains, while sacrificing the position of other individuals. In other words, a wrongdoer decides to commit a crime on the basis of a cost/benefit analysis of the positive (gain) and negative (punishment) consequences that the crime can bring to his position. If the immediate gain of the crime exceeds the consequences of punishment, then the wrongdoer will choose to commit the crime and suffer the possible consequences in order to get the temporary gain achieved from the crime. In a nutshell, wrongdoers participate in criminal activity as a form of gratification, or for pursuing self-interest to the detriment of the interests of other individuals.

Notwithstanding the mostly unsuccessful attempts on the part of Positivist thinkers to influence responsibility-related doctrines - although Positivist thought has had a bearing on sentencing criteria as provided for in some continental European legislations, like Italy- the principles of freedom and rationality typical of the Classical school are still dominant in Western criminal codifications and scholarship. In particular, the Classical perspective about crime and criminal behavior has been revived, and somehow softened, by Neo-Classical thinkers,<sup>59</sup> whose thought dominated the legal scenario in the 19<sup>th</sup> and 20<sup>th</sup> centuries - and still bears an influence today.

In spite of important refinements, Neo-classicists have continued to accept the principles of free rationality and hedonism *quibus* essential features of criminal behavior. In fact, the core of Neo-classical thought is that individuals choose, freely and rationally, to act in breach of the law to pursue self-interest. Furthermore, also Neo-classical thinkers ground criminal decision-making in intellectual powers. For instance, Neo-classical thinkers maintain that infants and insane people are not legally

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<sup>58</sup> See Jeremy Bentham, *An introduction to the principles of morals and legislation* (first published in 1780, Batoche Books 2000); Herbert L.A. Hart, *Essays on Bentham* (Clarendon Press 1982).

<sup>59</sup> Neo-classical ideas have, for example, softened the absolute presumption of rationality on all individuals, and altered the criminal justice system to take account of those with impaired reason (children, impaired learning etc.). See Katherine Williams, *Textbook of Criminology* (Oxford University Press 2012) ch. 1, Section 1.2.3.

responsible for their actions precisely because these categories of individuals do not possess the necessary intelligential capacities that make them able to rationally evaluate and calculate the consequences of their actions. On the whole, Neo-classical thinkers view crime as a rational choice, which is guided by an intellect-governed instrumental reasoning.

H.L.A. Hart, for example, might be seen to be in the Neo-classical tradition,<sup>60</sup> for his work focuses on free will and rationality, as well as refines ideas of responsibility and capacity both in their relationship to mental abilities and to legal, moral, situational and causal aspects. In many ways Hart was a utilitarian, but softened the utilitarian ideals with retributive and distributive ideals. More specifically, Hart used free will and rationality as benchmarks of criminal responsibility to construct a retributive model in the distribution of justice and punishment, one that loosens the strict classical requirements of certainty so allowing more complex sentencing decisions.

To conclude, Western criminal law presupposes that the culpable agent is a rational thinker whose instrumental calculation about whether or not to commit an offense is provided by a decontextualized abstract, practical reasoning. Under the influence of the (Neo)classical thought, criminal law has generally taken rationalist and objectivist connotations. It is rationalist for it grounds criminal responsibility in instrumental reasoning, and thus holds a view of criminals as rational calculators as to whether committing a crime is worthy of their time and trouble. It is therefore objectivist as the subjective inquiry into an agent's blameworthiness is limited to assessing whether or not an individual consciously and willingly opted for criminal wrongdoing, any further subjective evaluation being irrelevant for criminal responsibility assessments. In further confirmation of these claims, the analysis will now move to explore how intellectualism, or rationalism, permeates the substance of the Legally Relevant Mind.

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<sup>60</sup> See Hart n. 35.

#### IV. THE RATIONALIST SOUL OF CULPABILITY: REASON *QUA* COGNITIVE INTELLIGENCE

The rationalist attitude embraced by criminal law implies a view of criminal behavior as the result of an instrumental calculation that is governed by the power of Reason. The legal idea of rationality, *qua* essential condition of culpability and responsibility, is strictly tied to that of Reason.

On a closer view of legal literature, the word “Reason” is commonly considered as synonymous for rationality. Thus, the two terms are often used interchangeably.<sup>61</sup> As is well known, however, reason and rationality are not exactly equivalent. In his *Dizionario di Filosofia*, for example, the famous Italian philosopher Nicola Abbagnano defines “reason” as the *autonomous* faculty, or force, that guides human beings, and frees them of prejudices, preconceptions, and entrenched yet false opinions.<sup>62</sup> “Rationality”, and its predicate “rational”, are instead defined as characteristics of human behavior *deriving from the use of Reason*; in short, what is made or said by, or consistent with, Reason.<sup>63</sup> Similarly, Herbert Fingarette describes Reason as “that guiding or directing faculty of the mind by virtue of which man has traditionally been said to be a rational being”.<sup>64</sup>

In order to fully appreciate the criminal law’s paradigm of the culpable agent, it is crucial therefore to focus on the dominant understanding of “Reason”. Stemming from the timeless Cartesian *cogito ergo sum*, by which Descartes stated the separation between *res cogitans* (the soul, or the mind) and *res extensa* (the body), rationalist philosophy has remained tied to an idea of Reason as the active aspect or power of the mind,<sup>65-66</sup> and it is usually identified with *reasoning, thinking, planning, learning,*

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<sup>61</sup> See, e.g., Peter Arenella, ‘Convicting the morally blameless; Reassessing the relationship between legal and moral accountability’ (1992) 39 University of California Law Review (1992) 1511; Jerome Hall, ‘Mental disease and criminal responsibility - M’Naghten versus Durham and the American Law Institute’s tentative draft’ (1958) 33:2(12) Indiana Law Journal 212, 213.

<sup>62</sup> See Nicola Abbagnano, *Dizionario di filosofia* (3rd edn UTET 2013), 892 -893. Cf. Christine M. Korsgaard, ‘The activity of Reason’ (2009) 83:2 Proceedings and Addresses of the APA 23, 30 (“The faculty of reason is not identified merely as the ability to recognize and respond to reasons. The faculty of reason is identified rather as the active dimension of the mind, and rational principles are then identified as those that describe or constitute rational activity.”).

<sup>63</sup> Abbagnano, *id.* 899-900.

<sup>64</sup> Fingarette n. 18, 181-182.

<sup>65</sup> Korsgaard n. 62, 23.

<sup>66</sup> René Descartes, ‘Discourse on the method’ in John Cottingham et al. (transl) *The philosophical writings of Descartes* (first published in 1637, Cambridge University Press 1984), 111-142.

*understanding*, and the like. Reason (*res cogitans*) in this sense is opposed to perception, sensation, and emotion (*res extensa*),<sup>67</sup> which are “forms of, or at least inform, undergoing”.<sup>68</sup> In a nutshell, Reason is clearly identified with *cognitive intelligence*, namely that general mental faculty that involves the ability to reason and think abstractly, plan, solve problems, as well as comprehend complex ideas, and so on. More broadly, cognitive intelligence reflects a deeper faculty of understanding our surroundings — like “catching on”, “making sense” of things, or “figuring out” what to do.

Criminal law fully accepts this cognitive intellect-based understanding of Reason. In fact, there is a pervasive tendency in legal literature to slide from ‘reason’ to ‘cognition’ (i.e., cognitive intelligence) as if they were equivalent. For instance, Fingarette observes that “the concept of reason has [...] been taken as the key [...] to man’s thinking, to what are called his cognitive capacities”.<sup>69</sup> As the synonym for Reason and the highest function of the mind, it is cognitive intelligence that drives conscious decision-making, intention-forming, planning, and choosing. Hence, it is cognitive intelligence (alone) that characterizes, using William Hirstein and Katrina Sifferd’s words, “the legal self”.<sup>70</sup> In other words, as Williams put it, “the only persons capable of acting wrongly are those of a certain intelligence or intellectual accomplishment”.<sup>71</sup> As long as an individual displays (the capacity for) reasoning, he (has the capacity to) understands what conduct social norms require, and (has the capacity to) controls and chooses his actions, he would then be blameworthy based upon the choice of action he selected. In other words, contemporary criminal law assumes and expresses a cognitive model of blameworthiness.

The intellectualistic view of Reason as cognitive intelligence - the only source of rational decision-making processes - permeates the relevant psychological set behind the two above-mentioned culpability conditions, i.e. cognition and volition. These two criminality conditions featuring culpability notions are indeed grounded in rational

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<sup>67</sup> René Descartes, ‘Passions of the soul’ in John Cottingham et al. (transl) *The philosophical writings of Descartes* (first published in 1649, Cambridge University Press 1984), 325-383.

<sup>68</sup> Kongsgaard n. 25, 207.

<sup>69</sup> Fingarette n. 18, 182.

<sup>70</sup> William Hirstein & Katrina Sifferd, ‘The legal self: Executive processes and legal theory’ (2011) 20:1 *Consciousness and Cognition* 156.

<sup>71</sup> Glanville Williams, ‘The Criminal Responsibility of Children’ (1954) *Criminal Law Review* 493, 494.

principles that speak the language of intelligence to espouse a cognitive model of liability that is the dominant pattern of blameworthiness in contemporary criminal law.

The next section will precisely attempt to demonstrate how criminal law grounds the conceptualization and the evaluation of both cognitive and volitional prongs of culpability notions in cognitive intelligence, and therefore that culpability doctrines uniquely build on and revolve around the cognitive sphere. This analysis is crucial for the purposes of this work.

A. Knowing and understanding:  
Cognitive intelligence and the cognitive prong of culpability

The preeminent role of cognitive intelligence as the absolute component of the Legally Relevant Mind is primarily reflected in the cognitive prong of culpability doctrines. Overall, criminal law understands *cognition* as *consciousness (i.e. understanding, or knowledge) of the factual and/or moral significance of criminal wrongdoing*. This understanding of the cognitive prong of culpability emerges from both rules and standards concerned with the substantial capacity requirement - for instance, insanity defense standards,<sup>72</sup> as well as with the legal descriptions of *mens rea* states - e.g., intent, knowledge, recklessness, negligence, etc.

In substantial capacity doctrines, the cognitive prong of culpability takes on the meaning of *capacity for understanding, or knowing, the factual and - in some cases - the moral meaning of the criminal act*. Using insanity standards as an example, let us consider the formulation of the M’Naghten Rule, the most common insanity standard in common law systems:<sup>73</sup>

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<sup>72</sup> See Husak n. 30, 465 (noting that in common law systems “insanity, along with infancy, provide the context in which commentators have thought most deeply about the capacities needed for criminal responsibility.”).

<sup>73</sup> Regina v. M’Naghten [1843] 10 Cl. & Fin.200, 8 Eng. Rep. 718. I consider the M’Naghten Rule as it is the most emblematic standard in common law systems. For a more detailed analysis of this standard, see *infra* Chapter Five, Section III.B.1.

“[T]he 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 [...]”

As we can clearly derive from this excerpt of the M’Naghten standard, the relevance of intellect as the sole mental source of rationality is reflected in one single requirement: *sufficient degree of reason*. Admittedly, the concept of “reason” in the formulation of the M’Naghten Rule has been little explored by criminal law theorists, and its meaning is still not clear.<sup>74</sup> However, it is not hard to understand that the concept of reason used in the M’Naghten is identified with cognitive intelligence. This interpretation is confirmed in the second part of the test, which states that insanity exists when:

“at the time of the committing of the act, the party accused was laboring under such a defect of reason, from disease of the mind, as not to know the nature and quality of the act he was doing, or, if he did know it, that he did not know that he was doing what was wrong.”

As we can derive, the word “reason” is strictly related to the word “know”. Arval Morris emphasizes the pivotal function of the word “know”, for “it circumscribes the entire test by singling out one aspect of a human being's total personality, the cognitive one”.<sup>75</sup> Therefore, Morris continues, “the test is heavily intellectualistic, and from a psychological point of view, narrow because the cognitive becomes the single, important criterion of criminal responsibility”.<sup>76</sup> Admittedly, the word “know” has also been substituted with other terms, regarded as synonyms, e.g. “appreciate,” “comprehend rationally,” “judge,” “understand,” “perceive,” “be aware of,” “conscious of,” and the like. Yet all these predicates are still clearly cognitive.

The purely cognitive intellectual essence of legal insanity under the M’Naghten rule has been markedly emphasized in *R v Kemp*,<sup>77</sup> a case heard at the Bristol Assizes in

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<sup>74</sup> See Walter Sinnott-Armstrong & Ken Levy, ‘Insanity Defenses’ in John Deigh and David Dolinko (eds), *The Handbook of Philosophy of Criminal Law* (Oxford University Press 2011) 299, 306.

<sup>75</sup> Arval Morris, ‘Criminal insanity’ (1967-1968) 43 *Washington Law Review* 583, 605.

<sup>76</sup> *ibid.*

<sup>77</sup> *R v Kemp* [1957] 1 QB 399. The case has been commented by Jerome Williams Hall, ‘Defect of reason from a disease of the mind’ (1957) 20:1 *Modern Law Review* 55, 56.

1957. In this case, the defendant attacked his wife with a hammer causing her grievous bodily harm. The evidence showed that he suffered from arterial-sclerosis, a condition which restricted the flow of blood to the brain. This provoked a temporary lapse of consciousness. Devlin J ruled that, for the purposes of the defense of insanity, no distinction was to be drawn between diseases of the mind, and diseases of the body affecting the operation of the mind. Commenting the relationship between “defect of reason” and “diseases of mind” requirements, Devlin J emblematically underlined the equation between legally relevant mind and cognitive intelligence. As he wrote:

'The law is not concerned with the brain but with the mind, *in the sense that "mind" is ordinarily used, the mental faculties of reason, memory and understanding.*<sup>78</sup>

The strict relationship between “Reason *qua* cognitive intelligence” and the cognitive prong of substantial capacity doctrines is also manifest - although more implicitly- in European systems. In Italy, for example, the cognitive capacity (*capacità di intendere*) requirement of *imputabilità* is philologically understood as the intellectual capacity that enables an agent to know that his act might harm social values.<sup>79</sup> As is written in the preparatory works to the Penal Code, for an individual to be potentially culpable, one cannot disregard his intelligence, *namely* the capacity to *understand and foresee* the consequences of one’s action or omission.<sup>80</sup> Moreover, the legal meaning of *capacità di intendere* does not include the capacity of moral appreciation: as long as an agent understands the factual features of a specific act, yet is not capable of appreciating its moral value, he is still *imputabile*, i.e. capable of culpability.<sup>81</sup>

Moving our analysis to *mens rea*, the cognitive prong of culpability is generally translated with (*factual*) *knowledge, or awareness* of either engaging in criminal conduct, or causing social harm, or both. For instance, let us consider the “*awareness of substantial risk*” requirement contained in the description of recklessness in common

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<sup>78</sup> *id.*

<sup>79</sup> See Atti della Commissione Ministeriale, Lavori Preparatori al Codice Penale e di Procedura Penale, Vol. IV, Tipografia delle Mantellate, Roma, Anno VII (1929), 271-272.

<sup>80</sup> Lavori Preparatori n. 43, 52.

<sup>81</sup> Giulio Battaglini, ‘The fascist reform of the Penal Code in Italy’ (1933) 24(1) Journal of Criminal Law and Criminology 278, 282.

law jurisdictions. A common assumption underlying this requirement is that people of *ordinary intelligence* are aware of their physical surroundings, and of the ordinary laws of cause and effect.<sup>82</sup> Thus, when a person plans what to do and what not to do, his intelligence will allegedly make him understand the range of likely outcomes from given behavior in terms of inevitability, improbability, or impossibility.

Similarly, the fundamental assumption underlying the state of negligence, the minimum level of culpability, looks at the power of cognition in determining “what defendants *ought to have known* about the situation in which they found themselves, even if they did not in fact know it.”<sup>83</sup> Also, as is very well known, negligence is evaluated through the “reasonable person standard”. The mental qualities that characterize the reasonable person - *attention, knowledge, intelligence, and judgment*- all end up as cognitive intelligence. As Fleming Jr observes, “[a]s far as mental and emotional characteristics are concerned, the prevailing view is that the jury will be told to apply an objective test, that is to hold the actor to the intelligence and stability of the standard man”.<sup>84</sup> This statement implies that, in whatever circumstance, criminal law expects people to exercise residual powers of cognitive intelligence that should prevent them from grossly overreacting or making crass evaluative mistakes. On the whole, the reasonable person is presumed to possess a degree of intelligence that society requires of its members for protection of the collective interest.

As this analysis highlights, it is apparent that the cognitive prong of culpability (doctrines) hinges on an evaluation of the agent’s intellectual functions. It is cognitive intelligence that sheds light on and gives substance to our knowledge and our conscience. If intellectual faculties are intact, then an offender is presumed to be aware of the facts about the world, to assess the moral rightness or the wrongfulness of the acts

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<sup>82</sup> Consider, for example, the reasoning the jurors made in *People v. Baker* [2004] 771 N.Y.S. 2D 607 (“We also note that here, [...], the circumstances are not of a type from which it can be inferred without a doubt that a person of even *ordinary intelligence* and experience would have perceived a severe risk of serious injury or death”). This case is reported in Matthew Lippman, *Contemporary criminal law: Concepts, cases, and controversies* (Sage Publication 2007), 132.

<sup>83</sup> Jeremy Horder, ‘Cognition, emotion, and criminal culpability’ (1990) 106 *Law Quarterly Review* 469, 474. Similar considerations can be offered with regard to the state of *culpa* in civil law systems. As for Italy, for instance, see the description of the mental state of *culpa* in Giovanni Fiandaca & Enzo Musco, *Diritto penale. Parte generale* (6th edn, Zanichelli 2008), 543-556.

<sup>84</sup> James Fleming Jr, ‘The qualities of the reasonable man in criminal negligence cases’ (1951) 16(1) *Missouri Law Review* (1951) 1, 21.

he is about to perform, and therefore to take on his own moral and criminal responsibility for his unlawful behavior.

B. Knowing *therefore* choosing:  
Cognitive intelligence and the volitional prong of culpability

Being a culpable agent does not merely require the understanding, or the awareness, of the value - either factual, or moral, or social - of an action, but also the attitude to conform one's actions to this understanding, or awareness. The legal frame of the culpable agent as a rational actor encompasses also a volitional component.

By and large, volition can be defined as the exercise of self-control enabling a person to choose a course of action among antagonistic reasons.<sup>85</sup> More specifically, volition is "that normal condition of the mind in which, according to common conscience [...] a sufficient will power exists to resist impulses which may urge [an actor] to commit punishable actions".<sup>86</sup> It follows that the culpable agent is one who, where there are no conflicting reasons, *can* do otherwise (i.e. he is provided with the capacity to resist antisocial impulses), but simply *won't*, and thus *chooses* to act upon his antisocial impulses. In other words, the culpable agent possesses, yet *wilfully chooses* to not exert, his self-control, and thus *decides* to act unlawfully.<sup>87</sup>

Like the cognitive prong, volition also takes on different meanings depending on the relevant culpability doctrine. In substantial capacity doctrines, volition equates to *capacity for self-control* (or control of impulses, and thus to do otherwise). In *mens rea* states, the volitional prong of culpability ranges from being an explicit intention to pursue a given criminal goal (e.g., in the *mens rea* state of intent, or purpose) to a positive attitude to create a substantial risk of harm (e.g. in the common law *mens rea* state of recklessness), to an implicit attitude of carelessness for legally protected values (e.g. in the *mens rea* state of *culpa* in civil law jurisdictions).

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<sup>85</sup> See Fiandaca & Musco n. 83, 335.

<sup>86</sup> Battaglini n. 81, 282.

<sup>87</sup> It is noteworthy that, in the legal domain, volition is not related to the philosophical free will dilemma. The legal notion of volition accepts an idea of free will as something belonging to public conscience, independent of any philosophical basis.

To really comprehend how criminal law conceptualizes volition, it is first necessary to refer to its folk psychological description. As we have seen,<sup>88</sup> folk psychology tends to account for human actions by only using the language of mental states, namely desires, beliefs and intentions. As Michael Moore explains, while desires and beliefs serve respectively as conative and informational grounds of intentions, intentions execute the motivations given by beliefs and desires.<sup>89</sup> The folk psychological meaning of volition, as Moore defines it, views volition as a functional mental state that translates desires, beliefs and, more generally, intentions into basic actions, by possibly solving conflicts between contrasting intentions.<sup>90</sup> According to Moore,<sup>91</sup> volitional failures, or failures of control, might therefore take place in the face of conflicts between states of mind at a variety of levels, in particular when desires are in conflict with intentions. Roughly, this conflict might derive from contradictory propositional contents of these mental states, so that desires override intentions, causing control defects or failures. Let us take the example of ‘smoking’:

- 1) John desires to smoke a cigarette; *Yet*,
- 2) John believes that not smoking might save him from serious health problems;  
*Therefore*,
- 3) John does not intend to smoke a cigarette. *But*,
- 4) John’s desire to smoke a cigarette is stronger; *Therefore*,
- 5) John smokes a cigarette.

In the common sense, this phenomenon is usually referred to as “weakness of will”. Philosophical works on weakness of will have been largely influenced by Aristotle’s work on *akrasia*.<sup>92</sup> Aristotle defines *akrasia* - or, more correctly, ἀκρασία (ἀ which means ‘without’, κρασία, from the verb κρατειν, which means ‘to command’, ‘to dominate’) - as a trait of character exhibited in uncompelled, intentional behavior that

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<sup>88</sup> See n. 19.

<sup>89</sup> Michael Moore, ‘The neuroscience of volitional excuse’ in D. Patterson (ed), *Law and Neuroscience: The State of the Art* (Oxford University Press 2016- Forthcoming).

<sup>90</sup> See Michael Moore, *Act and Crime. The Philosophy of action and its implications for criminal law* (Oxford University Press 1993) 113-165.

<sup>91</sup> See Moore n. 89.

<sup>92</sup> The akratic person, Aristotle wrote, is in such a state “as to be defeated by those [desires] that the majority of people are stronger than”. See *Aristotle’s Nicomachean Ethics* in R. Barlett and S. Collins (transl) (The University of Chicago Press 2011), 1150a 11-13.

goes against the agent's best or better judgment. *Akrasia* is opposed to *'enkrateia* (ἐγκράτεια, i.e. continence, self-control, strength of will) which, roughly, is a trait of character exhibited in behavior that conforms with one's best or better judgment in the face of temptation to act to the contrary.<sup>93</sup> Therefore, the akratic person is the one that yields to temptations more than most.<sup>94</sup>

Clearly, yielding to temptations, though strong or even abnormal, cannot be excused in the context of criminal law. As Morse vigorously asserts,

“Human beings can be subject to strong desires that [...] appear to have coercive motivational force [...]. But desires [...] are not physical forces that literally force one's body to move if they reach sufficient intensity. They work through the agent's practical reason”.<sup>95</sup>

In other words,

“[I]f the agent with irrational desires can comprehend the relevant features of her conduct, she can be held responsible if her irrational desires are the reasons she engages in legally relevant behavior”.<sup>96</sup>

Paraphrasing Morse's words, we can deduce that criminal law assumes a person to be able to solve the conflict among antagonistic reasons by virtue of the normative value of the reasons themselves, and thus of the action those reasons might produce. It follows that the culpable agent is one who, before a conflict of antagonistic reasons, proves to be insensitive to the normative value of these reasons, and decides to act accordingly.

Most importantly, criminal law assumes that being insensitive to the normative value of a reason, and of the consequential action, requires a prior knowledge of that

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<sup>93</sup> For Aristotle, the *enkritic* person is in such a state as “to overpower those [desires] by which most people are defeated”. See *id.*, 1150a 14.

<sup>94</sup> See Brink & Nelkin n. 33, 294 (“We assume that intentional action is the product of informational states, such as beliefs, and motivational states, such as desires and intentions. Though our beliefs can influence our desires, producing optimizing desires, our desires are not always optimizing. In cases of weakness of will, then, we have beliefs of what is best but in which we act instead on independent non optimizing desires”).

<sup>95</sup> Stephen J. Morse, ‘Uncontrollable urges and irrational people’ (2002) 88 *Virginia Law Review* 1025, 1059-1060.

<sup>96</sup> Morse n. 16, 255.

normative value. The view of volition as a faculty depending on cognition-which is expressed in the ancient legal maxim *nihil volitum nisi praecognitum* (transl: nothing is desired unless it is first known)<sup>97</sup> - which permeates the large majority of culpability doctrines.<sup>98</sup> Talking about insanity, Goldenstein states that the fundamental cognitive substance of insanity standards hides “the tacit assumption [that] powers of self-control are strengthened by knowledge of sanctions; and that any injustices [that] might result-to those who nevertheless are unable to control their conduct-are less than exerting the maximum possible pressure toward conformity with law.”<sup>99</sup>

As for *mens rea*, Simons, for example, argues that the Model Penal Code eventually acknowledges only cognition-based mental states and ignores conation-based (volition-based) mental states.<sup>100</sup> That is, the evaluation of the volitional prong of *mens rea* states ultimately rests on the cognitive one. Moreover, even when criminal law theoretically recognizes the autonomy of the volitional prong compared to the cognitive one, still the evaluation of the will requirement, as a practical matter, relies upon the prior evaluation of the knowledge requirement. In a nutshell, as Hall suggests, the *mens rea* “connotes the full co-presence of relevant knowledge”.<sup>101</sup> Arguing *a contrario*, Hall uses the example of the mistake of fact doctrine, *qua* negation of *mens rea*. In mistake of fact, knowledge of the material facts is absent. Factual knowledge lacking, there cannot be *mens rea*.

Therefore, if rationality in the law means primarily telling (i.e., knowing, being aware of, understanding, etc.) the factual, social and moral value of an action, and to act accordingly, it simultaneously consists of the “ability not to act if doing so is known to be wrong”.<sup>102</sup> To illustrate: if X *knows/is aware* that shooting Y will kill Y, and X *knows/is aware* that the act of killing is wrong, then X is supposed to refrain from shooting Y *because* of this knowledge/awareness, both factual and normative.

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<sup>97</sup> See Matthew O’Hare n. 53, 14 (“[T]he liberty or choice of the will presupposeth an act of understanding to know the thing or action chosen by the will [...]”).

<sup>98</sup> For a more detailed discussion, see also Part Two, Chapter Five.

<sup>99</sup> See Abraham H. Goldenstein, *The insanity defense* (Yale University Press 1967), 45-46; see also Stephen J. Morse, ‘Culpability and control’ (1994) 142 *University of Pennsylvania Law Review* 1587.

<sup>100</sup> Kenneth Simons, ‘Culpability and retributive theory: The problem of criminal negligence’ (1994) 5 *Journal of Contemporary Legal Issues* 365, 371.

<sup>101</sup> Jerome Hall, *General principles of criminal law* (2nd edn, The Bobbs Merrill Company 1960), 160

<sup>102</sup> *id.* 167.

The assumed dependence relation of volitional faculties from the cognitive ones indicates that the criminal law implicitly presumes that volitional faculties derive from the mental source enabling cognitive faculties. In other words, by inferring volitional faculties from the cognitive ones, criminal law implicitly accepts that the source of volitional faculties (choice, self-control, etc.) is the same as the one of cognitive faculties, i.e. cognitive intelligence. In fact, if the volitional faculty to choose to engage in given conduct strictly depends on prior cognitive faculty of knowing both the factual and normative meaning of that conduct, and if the mental source of that knowledge is cognitive intelligence, it logically follows that also volitional faculties are assumed to derive from cognitive intelligence. To illustrate: X is intelligent. X's intelligence enables him to know what stabbing Y means, and therefore X wilfully chooses (or prevents himself from) stabbing Y based on this knowledge.

In other words, cognitive intelligence, while enabling one's knowledge of the significance of his actions, also serves as a "protection variable" for the agent to be in control of and choose his own actions.<sup>103</sup> However, volition requires a *quid pluris*. That is, while cognitive faculties (knowledge, understanding) "only" require the good functioning of cognitive intellect, volitional faculties (self-control, choice) also require the agent to make good use of his cognitive intellect, so to exert his rational powers.<sup>104</sup>

To conclude, in the legal domain, the volitional prong of culpability, i.e. the faculties of choosing, willing, and controlling conduct, largely depends on the cognitive one, i.e. the faculty of knowing and evaluating facts about reality. For cognitive faculties (knowledge, understanding, etc.) derive from cognitive intelligence, then cognitive intelligence is assumed to also give rise to volitional faculties. It follows that the culpable agent is the one who, though possessing sufficiently powerful intellectual faculties that give him the capacity to act in a socially acceptable way, still does not exert his intelligential powers to control his criminal impulses, and thus chooses to act unlawfully. Granted, only in the presence of a defect of cognitive intellect, can it be argued that a person cannot do otherwise, thereby negating his alleged culpability.

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<sup>103</sup> See Morse n. 99, 1605-1610. Morse identifies specific "protective variables" that an agent must possess to be in control: apart from rationality (that Morse understands as cognition), these variables are self-consciousness (to monitor oneself, to understand what one is doing), fear of consequences, and good judgment, having preferences and goals, and moderate temperament.

<sup>104</sup> See Morse n. 95, 1064 ("Human beings control themselves by using their reason").

## V. THE NEGLIGIBLE ROLE OF EMOTION IN CULPABILITY

In *De Ira*, Seneca clearly stated the opposition between Reason and Passion. Consistent with the stoic perspective, Seneca considered Passion to be the main form of divergence from Reason, and that it was therefore to be eliminated.<sup>105</sup> Seneca's view on passions was followed by a long line of rationalist philosophers such as Descartes,<sup>106</sup> Spinoza,<sup>107</sup> or Kant,<sup>108</sup> who viewed emotions as a phenomenon that overwhelmed Reason. Apart from permeating the philosophical rationalist tradition, the contrast between Reason and Passion, or Reason and emotion, has also marked both the common sense and the criminal law's model of culpability and blameworthiness, by reducing it to a sharply intellectual sphere.

Regardless of the long dispute among scholars belonging to different fields of study on the exact meaning of emotion,<sup>109</sup> to the scope of this work it is sufficient to illustrate what understanding of emotion is adopted by criminal law. The answer is very simple. Criminal law's view of emotion is rationalist and folk psychological. Under the folk - and rationalist - conception, emotions take on negative connotations, in that emotions are viewed as contrasting with intellect and rationality, and therefore may only

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<sup>105</sup> Lucius Anneus Seneca, *De ira*, Dialogi, Liber I, 7 ("Primum facilius est excludere perniciosam quam regere et non admittere quam admissa moderari; nam cum se in possessionem posuerunt, potentiora rectore sunt nec recidi se minuere patiuntur. Deinde ratio ipsa, cui freni traduntur, tam diu potens est quam diu diducta est ad affectibus; si miscuit se illis et inquinavit, non potest continere quos summovere potuisset. Commota enim semel et excussa mens ei servit quo impellitur").

<sup>106</sup> See Descartes, *Passions of the soul*, n. 67.

<sup>107</sup> See Baruch Spinoza, *Ethics, Demonstrated in Geometrical Order* W. Hale White (transl) (Kessinger Publishing 2010).

<sup>108</sup> See Immanuel Kant, *The Metaphysics of Morals*, M. Gregor (transl) (Cambridge University Press, 1991) 270 (in *Fragments of a Moral Catechism*, Kant claims: "The rule and instruction for knowing how you go about sharing in happiness and also becoming at least not unworthy of it, lies in your reason alone.").

<sup>109</sup> There is not a unanimous view on the relationship between emotions and other mental states like desires and beliefs. For an overview, see Ronald De Sousa 'Emotions' in E. Zalta (ed), *Stanford Encyclopedia of Philosophy* (Spring 2014), URL= <<http://plato.stanford.edu/entries/emotion/>> accessed 18 February 2015; cf. Nicola Abbagnano, 'Storia Filosofica delle Emozioni' in D. Galati (ed), *Prospettive sulle emozioni e teorie del soggetto* (Bollati Boringhieri 2002) 34-38; Rainer Reisenzein, 'What is an emotion in the belief-desire theory?' in F. Paglieri, L. Tummolini, R. Falcone & M. Miceli (eds), *The goals of cognition: Essays in honor of Cristiano Castelfranchi* (College Publications 2012). Also, there is no unique or absolute definition of emotion in either moral philosophy of mind or in moral psychology. See, e.g., Klaus R. Scherer, 'What are emotions? How can they be measured?' (2005) 44 *Social Science* 695, 696 ("The concept of 'emotion' presents a particularly thorny problem. Even though the term is used very frequently, to the point of being extremely fashionable these days, the question 'What is an emotion?' rarely generates the same answer from different individuals, scientists or laymen alike [...]").

undermine moral behavior.<sup>110</sup> Simply put, “emotions are thought to be irrational, involuntary, and animal-like, whereas intellect is rational, voluntary, and distinctly human”.<sup>111</sup>

Generally, criminal law tends to juxtapose emotions and passions, both of which - despite holding different meanings - produce a destabilizing effect on reasoning and behavior. For example, a famous Italian criminal law theorist defines emotion as a profound, short, and sudden affective disturbance, which arises as a reaction to certain occurrences, and ends up taking control over all other mental functions. On the other hand, passion is a violent, long-lasting affective state, which tends to predominate on overall mental activity in a more invasive and exclusive way, thereby provoking significant behavioral alterations to the extent that makes behavior irrational and out of control.<sup>112</sup>

This rationalist and commonsense-based understanding of emotions adopted by criminal law is what Dan Kahan and Martha Nussbaum call the “mechanistic conception”<sup>113</sup> of emotions. Under the mechanistic conception, emotions have a negative effect on reasoning and self-control. More specifically, emotions are forces that do not contain or respond to thought.<sup>114</sup> Rather, “emotions [...] are impulses that lead the person to action, without embodying [...] any way of seeing the world [as] good or bad, right or wrong. In this sense, emotions are apt to sweep over us, or invade us without our control”.<sup>115</sup>

As is made plain, under the mechanistic view, emotions do not play any role within morally rational decision-making. Rather emotions are treated as irrational occurrences that may distort moral reasoning, in the extent to which, using Jonathan Baron’s words,

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<sup>110</sup> Commonplace idioms reveal this bias: "Keep a cool head;" "Hold your emotions at bay;" or, "Do not let your passions interfere with your judgment".

<sup>111</sup> Normal J. Finkel & Gerrod Parrot, *Emotion and Culpability* (American Psychological Association 2006), 53.

<sup>112</sup> Ferrando Mantovani, *Diritto penale. Parte generale* (CEDAM 2007) (“Si dice comunemente che l’emozione è l’intenso turbamento affettivo, di breve durata ed in genere di inizio improvviso, provocato come reazione a determinati avvenimenti e che finisce col predominare sulle altre attività psichiche», mentre la passione è uno stato affettivo violento e più duraturo, che tende a predominare sulla attività psichica in modo più o meno invadente o esclusivo, si da comportare talora alterazioni della condotta che può divenire del tutto irrazionale per difetto di controllo”).

<sup>113</sup> See Dan M. Kahan & Martha C. Nussbaum, ‘Two conceptions of emotion in criminal law’ (1996) 92(2) *Columbia Law Review* 270, 275- 295.

<sup>114</sup> *id.* 273.

<sup>115</sup> *id.* 278-279.

“they are thought of as a way of making decisions without thinking”.<sup>116</sup> In other words, emotions are not part of the mental states that *make* rationality. Rather, emotions are potentially apt to destabilize moral and rational decision-making by preventing a person from selecting the adequate means to achieve his goals, and therefore negatively affecting his self-control.<sup>117</sup>

By embracing this perspective, criminal law excludes any relevance of the emotional sphere of the mind for the mental makeup of culpability. As Finkel and Parrot note, “the folk category of emotion can appear to threaten the orderly rule of law, for it carries with it the irrationality of primate impulses and the indeterminacy of subjective states. These perceived threats account for why the law omits emotion in favor of more cognitive criteria [...]”.<sup>118</sup> Also, as the two authors suggest, the general reluctance to deal with emotion is linked to the law’s effort to avoid subjective rules, standards, and judgments as much as possible.<sup>119</sup> Therefore, the law has opted for “more mechanical, physical, bodily aspects of everyday emotion language”.<sup>120</sup>

The neglected role of emotion in rationality is manifest in all culpability doctrines, from *mens rea* states to excusing conditions. Both the conceptual structure and the psychological substance of culpability doctrines are purely and simply cognitive, in the sense that they are only based upon cognitive intellect. Emotion, instead, mostly plays a very marginal role. To illustrate, emotion is generally not considered in the relevant psychological set of *mens rea* states. As mentioned above, these states are conceptualized based on the fusion of cognition (awareness, consciousness, knowledge)

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<sup>116</sup> Jonathan Baron, *Thinking and deciding* (4th edn, Cambridge University Press 2008), 63.

<sup>117</sup> The other conception of emotion is the evaluative conception. See Kahan & Nussbaum n. 113, 273 (explaining that under the evaluative conception “emotions express cognitive appraisals, that these appraisals can be morally evaluated, and that persons can and should shape their emotions through moral education.”). Kahan and Nussbaum actually defend an idea that even though the law’s language may suggest a view of emotions that is distinctively primitive, bodily, and mechanical, its logic actually suggests an evaluative understanding of emotions. Speaking about rage, the two authors maintain that rage is mitigating not because of a mechanical loss of control but because rage expresses values that are proper in the situation. In other words, it is conceivable that the law expresses understanding of emotion’s cognitive aspects, even if it draws on noncognitive metaphors to describe it. I disagree with this view. Despite Kahan’s and Nussbaum’s reasoning appears logic and certainly correct (emotions *are* evaluative and cognitive, and *should be* considered as such by the law), I am not inclined to think that criminal law actually takes this perspective into account. As it emerges from legislative texts, codes, preparatory works, commentaries and so on, the view that emotions are opposed and in opposition to cognition and self-control is manifest.

<sup>118</sup> Finkel & Parrot n. 111, 48.

<sup>119</sup> *Id.* 83.

<sup>120</sup> *Ibid.*

and volition (willingness, either explicit or implicit), although in different degrees and gradations. As we saw, their mental substance is twofold, and is ultimately grounded in cognitive intelligence. Emotion and emotional states are not included in the legal description nor in the substance of the legally relevant mental states. Rather, and in confirmation of the criminal law's adoption of a mechanistic conception of emotions, emotions mostly play a circumstantial role within the *mens rea* doctrine. That is, when a crime is committed under emotional influence, this circumstance can do nothing more nor less than either aggravate or attenuate the seriousness of the offence.

As an emblematic and general example, take the distinction between the crime of murder (or premeditated homicide) and that of voluntary manslaughter committed in a heat of passion (or *impetus* homicide). When the law distinguishes between these two forms of homicide on the basis of whether the accused was either acting under an impulse or heat of passion, or whether enough time had passed for the accused's blood to cool, it is clearly drawing on everyday metaphors of emotion as a source and a type of irresistible force. That is, when the homicide is committed after a careful and cool deliberation, then the perpetrator is presumed to possess all his cognitive intellectual faculties intact. His cognitive intellect, i.e. his rationality, drove the action. On the contrary, when the homicide occurs in a sudden impulse, the law presumes that the actor's passions or emotions have overridden his cognitive intellect, and therefore undermined his rationality and self-control.

Importantly - and this is the paradox -, since emotion is not considered to be a mental source of legal rationality, emotional integrity is not considered to be a condition necessary for culpability- and thus for criminal responsibility. As said, criminal law presumes that the emotional sphere does not contribute to the rational processes that enable an agent to appreciate the legal, moral and social value of conduct, or to conform conduct to what the law prescribes. As emotion is thought to play no role in guiding "normal" behavior, criminal law leaves emotion aside from the notion of culpability. For instance, the lack of emotional capacity is not thought of as a condition to ground an excuse. As long as an individual possesses cognitive intelligential faculties intact, and thus demonstrates to have good instrumental reasoning faculties and to make a good use of them, the possible lack of emotional faculties does not affect his culpability in any way.

The most emblematic example to illustrate the latter issue is psychopathy. Although there is now growing *consensus* to call psychopathy a personality disorder, criminal law treats psychopaths as *paradigmatic* culpable agents. The reason is simple: psychopaths' intellectual faculties are intact. They are intelligent enough to know the facts, have no misperception of reality, and understand that there are rules and consequences for violating them.<sup>121</sup> What they lack is simply empathy, regret, guilt, or more in general, prosocial emotions and feelings. Simply put, psychopaths are not excused because they possess all required mental faculties that make them legally rational.<sup>122</sup>

Despite the criminal law's firmness in denying any role of emotion in rationality, some commentators do recognize that either the presence or the absence of emotional capacity or states should be weighted in the evaluation of the substantial capacities necessary for responsibility, as well as in *mens rea* states.<sup>123</sup> However, as Raider notes, "although some of these theorists acknowledge a richer conception of rationality than pure instrumental reasoning, including a limited role of emotions, they stop short of including all of the relevant capacities".<sup>124</sup> Indeed, even when emotions are thought of as a relevant compound, they are still treated as a mere *quid pluris*, and still on a distinct and separate level compared to rationality.<sup>125</sup>

Concisely, emotional sphere is not part of the Legally Relevant Mind. Neither the affective quality of an agent's practical reasoning leading to a criminal choice, nor an agent's emotional capacity to feel the significance of his conduct are essential features of the notion of rationality underlying the paradigm of culpability. The ordinary conception of rationality accepted by criminal law only includes the intellectual faculty to understand the meaning of actions, and to choose to act upon antisocial impulses as a consequence. Therefore, the culpable agent, with his intellectual faculties intact that

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<sup>121</sup> See Stephen J. Morse, 'Psychopathy and Responsibility' (2002) 1 *Neuroethics* 205, 208.

<sup>122</sup> In confirmation of this, one might consider the provision contained in Model Penal Code 4.01(2), which is clearly meant to exclude psychopathy, or other forms of sociopathy, from the category of mental diseases or defects that might found an excuse. See *infra* Chapter Five, Sections III.B and V.

<sup>123</sup> See Michael Moore, *Placing blame. A general theory of criminal law* (Oxford University Press 1997) 610-633; Stephen J. Morse, 'Brain and blame' (1996) 84 *The Georgetown Law Journal* 527; Arenella n. 61.

<sup>124</sup> Laura Raider, 'Toward a new test for insanity defense: Incorporating the discoveries of neuroscience into moral and legal theories' (1998) 46 *University of California Law Review* 289, 293.

<sup>125</sup> For example, Stephen Morse qualifies emotions as one of the protecting variables that "also might" help the agent to be in control. Yet Morse places them on a distinct and independent level compared to rationality. See Morse n. 99, 1608.

give him the ability to tell good from bad and to control himself, and thus to consciously choose criminality, is, in De Sousa's words, a deviant *Kantian monster*.<sup>126</sup>

## VI. CONCLUDING THOUGHTS: FRAMING THE CURRENT MODEL OF THE LEGALLY RELEVANT MIND

This Chapter brought to light the strong intellectualist conception of human, and notably criminal, behavior underlying the doctrine of culpability. It did so by describing the mental makeup featuring the ideal model of the culpable agent.

The Chapter began with the description of the building block of criminal responsibility, i.e. rationality. The legal concept of rationality equates to (moral) reasons-responsiveness, i.e. a person's faculty to be guided by (moral) reasons for actions, and to act accordingly. Contemporary criminal law grounds rationality in two mental conditions, i.e. cognition and volition. In the legal domain, a person is culpable as long as his actions are driven by a certain degree of factual awareness of the wrongdoing, as well as a certain degree of will to engage in unlawful conduct, and possibly do social harm. When these two conditions are met, then a person is assumed to be rational, and thus amenable to criminal responsibility.

Rationality, and its featuring faculties, permeates two levels of culpability. At the substantial capacity level, an agent is assumed to be rational, and thus potentially culpable, as long as he is capable of understanding, or knowing, the meaning of his act, and thus control his behavior. At the *mens rea* level, the agent is viewed as rational, and thus potentially culpable, as long as he acts upon a certain degree of factual awareness of the criminal wrongdoing, as well as with the will to pursue a given criminal purpose.

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<sup>126</sup> Ronald De Sousa, *The rationality of emotion* (The MIT Press 1990), 14.

- 1) **Culpability** = Attitude of disregard for a given legal value (blameworthiness) expressed by a legally relevant state of mind. The notion of culpability is based on and revolves around...
- 2) **Rationality** = The ability of acting for reasons and being guided by reason. Rationality, in the legal domain, involves understanding, reasoning, controlling conduct. On the whole, rationality in law holds a twofold substance, featuring all culpability notions:
  - A) **Cognition** (Cognitive state): Capacity for understanding/ Awareness of the criminal wrongdoing
  - B) **Volition** (Conational state): Capacity for self-control/ Will of criminal conduct

**Fig. 1:** Outline of the psycho-legal substance of the current notion of culpability

Stemming from this legal understanding of rationality *qua* but for condition of culpability, the analysis moved to inquiry which, for criminal law, is the mental source of rationality, and thus of its cognitive and volitional components. To answer this question, the Chapter rewound to the Enlightenment era, when social contract thinkers like Cesare Beccaria and Jeremy Bentham were creating the bases of the Classical and Neo-Classical Schools of Criminal Law - which are the still dominant schools of thought in most Western legal systems.

Classical thought started a strong, still lasting, rationalist tradition in the criminal law. Under the rationalist conception, criminal behavior- just like law-abiding behavior- is nothing more nor less than the result of an instrumental, self-interested calculation of the potential pleasures and pains deriving from criminal wrongdoings. Concisely, criminal behavior is nothing more nor less than a rational choice for bad reasons. As such, the mental makeup underpinning criminal behavior differs in no way from that underpinning law-abiding behavior. That is, criminal behavior is the result of purely instrumental reasoning driven by the pursuit of one's self-interest to the detriment of the interests of other individuals.

Rationalist thinkers grounded instrumental reasoning- criminal and law-abiding alike- in the powers of Reason. Reason is the only faculty that enables people to live together in society. It is Reason that illuminates and guides people's choices and behaviors involving the interests of other individuals. Also, the concept of Reason in the Classical era took on a purely cognitive intellectual connotation. Reason, by definition, got to be understood as a synonymous with intellect, and thus was in sharp contrast with emotions, instincts, passions - all forms of undergoing.

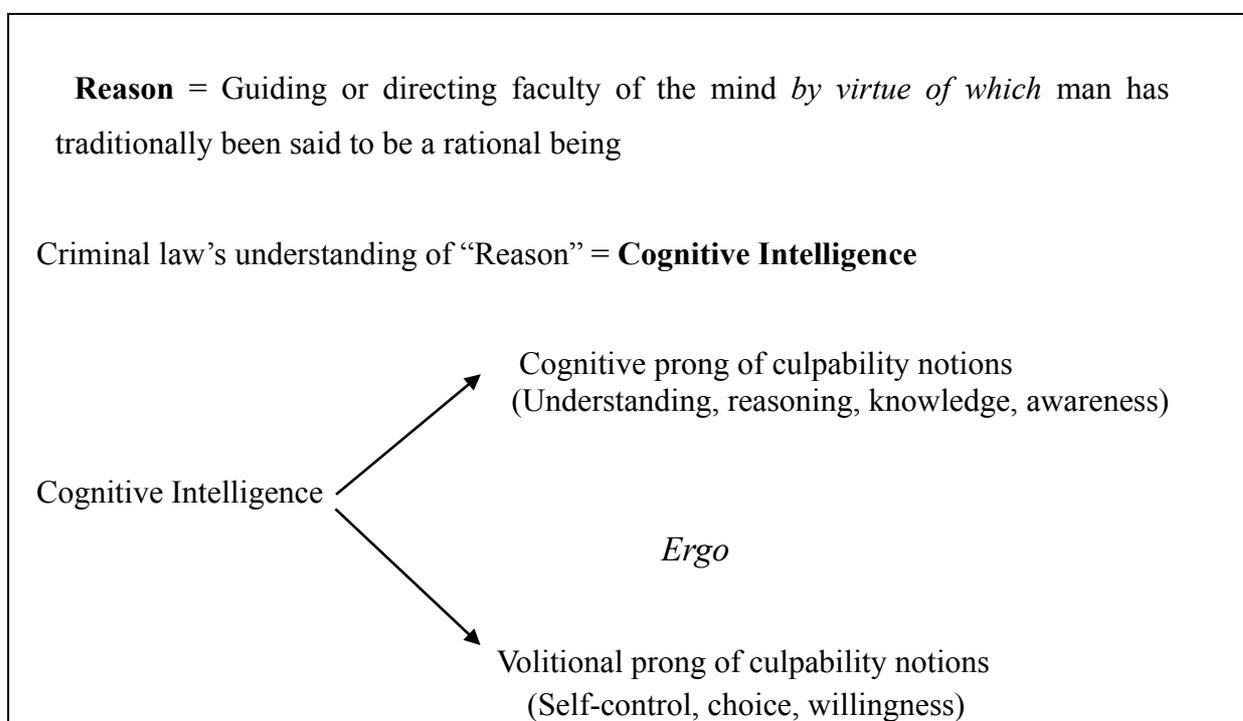
Drawing on the illustrated legal-historical background, this Chapter demonstrated that contemporary criminal law relies upon said intellectualist understanding of Reason to espouse a fully cognitive model of culpability and blameworthiness. It did so by analyzing the language of criminal law rules and standards pertaining to culpability doctrines, notably substantial capacity and *mens rea* doctrines. The analysis showed that criminal law clearly speaks the language of intelligential cognition. As has been illustrated, the language used to describe said culpability notions is clearly cognition-based. The relevant components of culpability notions - i.e. cognitive and volitional prongs - are both grounded in intelligential faculties. The analysis thus highlighted a markedly cognitive intellectualist picture of the culpable agent, whose rationality - and culpability as a consequence - is supposed to emerge from his cognitive intellectual faculties that allegedly give rise to both his cognitive ability of factually understanding/knowing/being aware of his criminal wrongdoing, and thus of wilfully choosing to act upon his antisocial impulses. In a nutshell, cognitive intelligence is the only sphere of the Legally Relevant Mind.

The rationalist set of the Legally Relevant Mind does not include the emotional sphere. According to orthodox understandings, emotion is, by definition, opposed to Reason, and thus - following the legal interpretation of Reason - to cognitive intellect. As cognitive intellect is supposed to be the only mental sphere giving rise to both cognitive and conative states contributing to rational decision-making and behavior, then the law neglects any role of emotion in rationality. Because emotion is not part of the relevant psychological set of the Legally Relevant Mind, neither emotional capacity nor emotional states are included in the relevant substance of culpability notions. On the one hand, emotional capacity is not included in the capacities necessary for criminal responsibility. On the other hand, emotional states are not considered neither in the legal

descriptions nor in the evaluation of *mens rea* states. In a nutshell, emotion - and emotional faculties - are excluded from the essential substance of culpability.

In summary, criminal law presupposes a one-dimensional model of the Legally Relevant Mind, for the Legally Relevant Mind only embraces cognitive intelligence.

It is cognitive intelligence alone that presumably informs an individual's knowledge of the criminal wrongdoing, and *therefore* drives an individual to choose criminal, rather than law-abiding, conduct. Emotion plays a very marginal role, for it is assumed that it does not contribute to rational behavior. Therefore, emotion is not part of the essential substance of the Legally Relevant Mind.



**Fig. 2:** Outline of the orthodox legal understanding of the Legally Relevant Mind

Having illustrated the current model of the mental foundations of culpability, this investigation will now move to test its empirical/scientific plausibility. More specifically, it will measure the traditional model of the Legally Relevant Mind against the insights into the mental and cerebral correlates of moral decision-making and antisocial behavior offered by behavioral and, notably, neuroscientific disciplines.

By using research findings from said scientific branches, this investigation will seek to answer the following questions:

- 1) Does cognitive intelligence alone actually drive both moral and criminal decision-making, and behavior?
- 2) Is the legal understanding of practical moral reasoning leading up to criminal behavior - i.e., a reasoning made up of only cognition-based states - truly accurate?
- 3) Is it sufficient to account for an individual's decision to engage in criminal conduct, and possibly do harm, by only considering his knowledge of the factual, and moral, significance of his action, and thus his wilful choice to act upon his antisocial impulses?
- 4) Do cognition-based states of mind effectively depict an individual's lack of concern for the interests of other individuals?

The answers to these empirical questions raise the following normative issues, that will be carefully explored:

- 1) Is it legally desirable to infer an individual's lack of concern, or attitude of disregard, for legally protected values - i.e. blameworthiness - on the sole basis that he knew what kind of conduct he was engaging in, chose to act upon this knowledge, and acted accordingly?
- 2) Are the traditional mental foundations of culpability able to actually grasp blameworthiness?
- 3) Is the current understanding of culpability, with its rationalist mental makeup, in true line with the principle of personal guilt?

All these issues - both empirical and normative - are very complex, and require detailed and very careful elaboration. This elaboration will be carried out in the following Chapters of this work.



## Chapter Two

### Emotions, Cognition, and the (Im)Moral Brain: A Review of Neuroscientific Literature about Moral Decision-Making Processes and Antisocial Behavior<sup>1</sup>

*“Hence, in order to have anything like  
a complete theory of human rationality,  
we have to understand what role emotion plays in it.”*  
Herbert Simon

#### I. INTRODUCTION: THE BRAIN BETWEEN PROSOCIAL AND ANTISOCIAL BEHAVIOR

Daniel Siegel, a renowned neuroscientist and the author of the so called interpersonal neurobiology,<sup>2</sup> calls the brain “the social organ of the body”.<sup>3</sup> This statement can be interpreted in two ways. The first, the one that Siegel actually intends, is that the brain works just like a society. The brain’s social system is made up of one hundred billion neurons firing and reaching out to other neurons, thereby giving rise to mental experience. Each neural system serves one or more specific functions. When different neural systems come together, they give rise to our mental life. Just like in society where citizens cooperate to contribute to the public good, neural circuitries work together to contribute to the overall brain well-being and good functioning.

The second way to interpret Siegel’s statement is that the brain is the organ that makes our social interactions possible, for it keeps us connected with other individuals. The

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<sup>1</sup> This Chapter has undergone scientific review by Dr. Gerardo Salvato, Post-doctoral fellow at the Department of Neuroscience of the Niguarda Ca’ Granda Hospital (Milan, Italy), as well as Teaching Assistant at the Department of Brain and Behavioral Sciences, University of Pavia (Italy), to whom I am deeply grateful for his invaluable help.

<sup>2</sup> See Dr. Daniel Siegel’s website,

URL= <[http://www.drdansiegel.com/about/interpersonal\\_neurobiology/](http://www.drdansiegel.com/about/interpersonal_neurobiology/)> accessed 10 January 2017.

<sup>3</sup> See Daniel Siegel, *The Developing Mind: How Relationships and the Brain Interact to Shape Who We Are* (2nd edn, Guilford Press 2012) ch. 1, 27.

relationship between the brain and social interactions is bidirectional. On the one hand, the brain prompts our cerebral processes and bodily experiences when we are presented with social stimuli, thereby informing our behavioral responses towards other individuals, and thus contributing to our social skills and relationships. On the other hand, physiological and neurological reactions are directly and profoundly shaped by social interactions. Social interactions operate as modulators, something like interpersonal thermostats that continually shape our brain function modulating emotions and vice-versa. In a nutshell, the brain is the organ that makes us social beings. As Goleman puts it, “[...] our brain’s very design makes it sociable, inexorably drawn into an intimate brain-to-brain linkup whenever we engage with another person. That neural bridge lets us affect the brain- and the body- of everyone we interact with, just as they do us”.<sup>4</sup>

To get a real understanding of our social life, i.e. how we can live peacefully with other people in social contexts, we also need to look at the brain. More specifically, we need to understand which brain mechanisms enable us to reason, decide, and behave in socially relevant contexts, which mechanisms are at stake when we think and care about other individuals, which mechanisms influence our observance of social, moral, and also legal rules.

In this respect, a key issue in neuroscience is the study of the brain mechanisms involved in moral decision-making allowing for successful prosocial behavior. Over the past 15 years, research in cognitive, affective, and moral neuroscience has been providing an increasingly accurate picture of the framework of decision-making processes in the brain, especially in moral contexts. Empirical findings emerging from this line of research have brought to light the central role served by emotions in (moral) decision-making processes. Nowadays, neuroscientific research views emotion as playing a pivotal role in moral and social life.

For a long time, rational moral thought has been considered to be the product of the mind, identified in cognitive functions, while emotions have traditionally been viewed as something belonging to the body. Influential work in psychology of morality during the “behaviorist era” considered moral reasoning to be a result of only cognitive

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<sup>4</sup> Daniel Goleman, *Social Intelligence: The new science of human relationships* (Arrow Books 2011), 4.

processes that may exist even in the absence of any kind of emotions.<sup>5</sup> This long-lasting perspective has been reversed since findings in evolutionary psychology suggested that emotions are mental states that play a key role in the origins of human morality. The cognitive revolution was thus complemented by an affective revolution. This affective revolution changed the scientific perspective about the role of emotions, for it gradually demonstrated that emotions and cognitions are equally important in reasoning and decision-making.

Theories on emotions, cognition, and decision-making have been validated by neuroscientific evidence about the significant involvement of emotion brain circuits in moral decision-making processes. Neuroscience adds considerable value to psychological theories on emotions and morality. Neuroscience has contributed to a greater extent to the understanding of emotions and moral decision-making processes, sometimes confirming intuitions coming from behavioral studies, other times disavowing and correcting flawed psychological assumptions. More importantly, neuroscience has provided the behavioral perspective with more empirical consistency. Some scholars even suggested that neuroscience led to an actual re-evaluation of the role of emotions in decision making processes, thereby giving rise, or solidifying, the current dominant position in moral psychology.

That being said, this Chapter explores the role of emotions in moral decision-making at both behavioral and, especially, neural levels. More specifically, this Chapter reviews key findings in moral psychology, cognitive and affective neuroscience, and neurocriminology, on emotions and feelings in moral decision-making processes and antisocial behavior. The central fact emerging from the analysis of scientific literature is that, contrary to ordinary understandings, our decisions, notably our moral decisions, cannot be properly made without emotional influence. More specifically, psychological and, notably, neuroscientific disciplines provide evidence that disavows the intuitive mechanistic conception of emotions- according to which emotions are considered to have negative effects on thought and reasoning - accepted by criminal law, and instead emphasize their crucial evaluative and regulatory role in orienting our choices and decisions. From a neuroscientific standpoint, emotions can be defined as an *ensemble*

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<sup>5</sup> Lawrence Kohlberg, *Essays in moral development, Vol. I: The psychology of moral development* (Harper and Row 1984).

of interactions of subjective and objective factors, which are mediated by neural and hormonal systems, and may cause affective experiences like excitement, pleasure, or regret, etc. Emotions may cause cognitive evaluations like emotionally relevant perceptual effects and labelling processes; furthermore, emotions activate physiological adaptations before excitement conditions, and modulate behavior aimed at adaptive scopes.<sup>6</sup>

Importantly, emotions serve a fundamental evaluative and adaptive role. They help us appreciate the moral significance of a certain perceived event, thereby influencing the content of our moral decisions and behavior, before intellectual faculties come into play. This means that our moral decisions, and thus our moral actions, cannot be explained only in terms of intellectual faculties but also, and more in depth, in terms of moral emotions and feelings that move and influence us to think and decide in a certain way, thereby shaping and giving substance to our moral behavior. On the whole, the common theme cutting across virtually all brain and behavioral studies on decision-making processes, especially in moral judgments, is that cognition is somehow parasitic on how emotion appreciates and reacts to perceived stimuli in moral contexts. Therefore, emotions are essential components of moral decision-making, and behavior.

The Chapter begins with a brief review of the role of emotions in theories of moral psychology. The brief investigation of the psychological insights into emotions and decision-making is meant to provide the reader with relevant information about how (moral) emotions may inform decision-making at the behavioral level. The Chapter then moves to the real core of this thesis, i.e. the analysis of the neuroscientific insights into emotions, decision-making, and moral judgments. To begin with, in Section III I shall present some of the key neuroscientific approaches to emotions. This analysis will mainly draw upon the work of three of the most influential affective neuroscientists: Joseph LeDoux, Jaan Pankseep, and Antonio Damasio. Next, the Chapter turns to the review of neuroscientific studies on the interaction between emotion and cognition in decision-making processes. In Section III.B, I shall present and discuss neuroscientific insights into the neural correlates of moral emotion, as well as decision-making processes in moral judgments. The analysis of the neuroscientific account about the

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<sup>6</sup> Valentina Douro & Rosanna Trenten, *Introduzione alla psicologia delle emozioni* (Laterza 2009), 9.

crucial role of emotions in moral decision-making processes continues in Section III.D, where findings from neurocriminology are explored. The illustration of the neurobiological variables that are being correlated with a number of antisocial behaviors highlights that the common cerebral denominator among antisocial or criminal population lies precisely in an altered functioning - not necessarily pathological- of the same emotional circuits that are involved in moral decision-making processes. As will be discussed, findings in neurocriminology suggests that criminal decision-making is to be understood as a type of moral process, for it involves, thought *a contrario*, some of the brain circuits - the emotional ones- that are commonly associated with moral decision-making.

Findings offered by neuroscientific studies about emotions and moral decision-making proves to be very challenging for the traditional model of the Legally Relevant Mind underlying the current notion of culpability. If emotion plays a pivotal role in decision-making processes leading up to either prosocial or antisocial behavior, then criminal law should stop perpetuating a flawed rationalist model of the Legally Relevant Mind, and thus reconsider the role of emotion in culpability. Following these discussions, the Chapter concludes (Section V) with an argument for revisiting the criminal law's rationalist ideal of the culpable agent with a scientifically sound emotion-oriented model of moral decision-making. In particular, it suggests the reconsideration of the components of the Legally Relevant Mind by including emotion in its relevant set.

## II. THE EVALUATIVE AND ADAPTIVE ROLE OF EMOTIONS: INSIGHTS FROM MORAL PSYCHOLOGY

In recent years, moral psychologists have developed cognitive theories of emotion as a way of understanding the particular rationality of emotional reactions. These theories come in many varieties, but they all share the idea that emotions - both basic<sup>7</sup> and

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<sup>7</sup> The category of basic emotions covers a disputed territory. By and large, basic emotions are discrete mental states including primitive emotions like happiness, sadness, fear, anger, and the like. See Paul Ekman, 'Basic emotions' in T. Dalgleish & M. J. Power (eds), *Handbook of cognition and emotion* (John Wiley & Sons, Ltd. 1999) ch.3, 45-60; Richard Davidson, 'Cognitive Neuroscience needs affective neuroscience (and vice versa)' (2000) 42(1) *Brain and Cognition* 89. See *infra* Section III.

moral-<sup>8</sup> play a crucial role in decision-making. The word emotion comes from the Latin “*ex*” (out) + *movere* (to move). The etymology of the word emotion is consistent with its core function: namely, that emotions compel us to act, they motivate us to act in a given way. More specifically, emotions “enable causes of decision-making insofar as they direct attention toward certain objects and away from others”,<sup>9</sup> giving substance to both our desires and motivations to act in a certain way in a given social context.

By and large, emotions make us appreciate the significance of a perceived event (stimulus) in a given environment, and predispose our behavioral response to that event before cognition comes into play. Cognitive appraisals, i.e. the way we interpret and make sense of the external world, activate and persist throughout the experience of emotions. Cosmides and Tooby, for example, argue that emotion’s function is

“to direct the activities and interactions of the subprograms governing perception; attention; inference; learning; memory; goal choice; motivational priorities; categorization and conceptual frameworks; physiological reactions [...]; reflexes; behavioral decision rules; motor systems; communication processes; energy level and effort allocation; affective coloration of events and stimuli; recalibration of probability estimates, situation assessments, values, and regulatory variables [...] and so on.”<sup>10</sup>

One of the most influential cognitive theories of emotions is the functionalist theory. Functionalist theorists define emotion as “the attempt by the person to establish, maintain, change, or terminate the relation between the person and the environment on matters of significance to the person”.<sup>11</sup> In a nutshell, emotion is synonymous with the

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<sup>8</sup> Moral emotions differ from basic emotions, for they are intrinsically linked to the interests or welfare either of society as a whole or of persons other than the agent. See Jonathan Haidt, ‘The moral emotions’ in Richard Davidson, Klaus Sherer, and H. Hill Goldsmith (eds) *Handbook of Affective Sciences* (Oxford University Press 2003) ch. 45, 852-870. Sometimes, moral emotions are also referred to as social emotions. See Kathryn F. Jankowski & Hidehiko Takahashi, ‘Cognitive neuroscience of social emotions and implications for psychopathology: Examining embarrassment, guilt, envy, and schadenfreude’ (2014) 68(5) *Psychiatry and Clinical Neurosciences*, 319 (“Social emotions are affective states elicited during social interactions and integral for promoting socially appropriate behaviors and discouraging socially inappropriate ones”). See *infra* Section III.

<sup>9</sup> Patricia Greenspan, ‘Practical reasoning and emotions’ in Alfred Mele & Piers Rawling (eds) *The Oxford Handbook of Rationality* (Oxford University Press 2004), ch.11.

<sup>10</sup> Leda Cosmides & John Tooby, ‘Evolutionary Psychology and the Emotions’ in M. Lewis & J. M. Haviland-Jones (eds), *Handbook of Emotions* (2nd edn, The Guilford Press 2000), 93.

<sup>11</sup> Joseph Campos et al., ‘A functionalist perspective on the nature of emotion’ (1994) 59(2-3) *Monograph on the society for research in child development* 284, 285.

significance of a person-event *transaction*.<sup>12</sup> From the functionalist perspective, emotions are conceptualized as flexible, goal directed, and contextually bound. More specifically, emotions prioritize and organize behavior in ways that optimize the individual's adjustment to the demands of the physical and social environment.<sup>13</sup>

Considering their adaptive role, emotions are crucial guides to our decisions. As Parrot and Finkel explain:

“when one is first exposed to an emotion-eliciting situation, one's initial appraisal of its significance can be quite spontaneous. People evaluate stimuli without intending to do so, and sometimes without even being aware of the stimulus, without knowing that they do it, and sometimes without even being aware of the stimulus that they are evaluating; their attention can be grabbed by the arrival of an object that is spontaneously evaluated as desirable as desirable and as threatening. *These evaluations can be so quick and automatic that they interfere with the task that a person is trying to accomplish*”.<sup>14</sup>

The functionalist approach to emotion has also been contextualized in moral judgments and behavior. According to the dominant view, moral emotions profoundly influence an individual's adherence (or lack of adherence) to moral standards. In other words, moral emotions provide the motivating force to do right and to avoid doing wrong.<sup>15</sup>

Notwithstanding the various classifications that have been proposed, moral emotions are by and large classified in four main categories: self-conscious moral emotions (including guilt, shame, embarrassment, pride); other-condemning emotions (anger, disgust, contempt); other-praising emotions (love, elevation); other-suffering emotions (compassion).<sup>16</sup> Of course, different moral emotions convey different information about

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<sup>12</sup> In psychological jargon, a “transaction” designates any interaction between the person and the social or physical surroundings.

<sup>13</sup> Dacher Keltner & James Gross, ‘Functional Accounts of Emotions’ (1999) 13(5) *Cognition and Emotion* 467; Karen C. Barrett & Joseph J. Campos, ‘Perspectives on emotional development: A functionalist approach to emotions’ in J.D. Osofsky (ed), *Handbook of Infant Development* (2nd edn, John Wiley & Sons 1987) 555; Richard S. Lazarus, *Emotion and adaptation* (Oxford University Press 1991); Keith Oatley & Jennifer Jenkins, ‘Human emotions: Function and dysfunction’ (1992) 43 *Annual Review of Psychology* 55.

<sup>14</sup> My emphasis. Normal Finkel & N. Gerrod Parrot, ‘Emotions and culpability: How the law is at odds with psychology, jurors, and itself’ (American Psychological Association 2006).

<sup>15</sup> See Haidt n. 8.

<sup>16</sup> *id.*

perceived events, and therefore affect moral decisions and behavior in different ways.<sup>17</sup> Put differently, distinct emotions shape moral judgments by prioritizing different socio-moral concerns. For example, “self-conscious” moral emotions have been viewed as playing a fundamental role in moral behavior. Among these, psychological studies show the crucial relevance of guilt, in combination with empathy,<sup>18</sup> in inhibiting antisocial impulses and promoting prosocial behavior.<sup>19</sup> In fact, the lack of empathy and guilt, alongside a strong desire to obtain personal rewards, are two common features of cold and callous individuals, who exhibit the tendency to engage in antisocial conduct.<sup>20</sup>

Moral emotions can also have negative effects on behavior.<sup>21</sup> ‘Shame-proness’ combined with anger, for instance, is considered to significantly increase the risk of highly aggressive, antisocial behavior.<sup>22</sup> Other studies, instead, emphasize that the combination of an overwhelming presence of positive moral emotions and excessively low levels of negative emotions, such as guilt, increase the risk of antisocial conduct. For example, in a study conducted on delinquent and non-delinquent juveniles,<sup>23</sup> researchers found that delinquent juveniles exhibit low guilt-proness and capacity for empathy, they regulate their self-esteem more by feeling pride, and they possess less victim-based moral orientation compared with controls.

Apart from self-conscious emotions, “other-condemning” emotions might also serve as a significant input into moral behavior.<sup>24</sup> Disgust, for example, is thought to increase

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<sup>17</sup> See Elizabeth J. Horberg et al., ‘Emotions as moral amplifiers: An appraisal tendency approach to the influences of distinct emotions upon moral judgment’ (2011) 3(3) *Emotion Review* 237.

<sup>18</sup> It is important to note that empathy is not qualified as an emotion by moral psychologists. Rather, empathy is a tendency or an ability to feel and share whatever another person is feeling, including happiness, anger, or boredom. See Nancy Einseberg, ‘Emotion, regulation, and moral development’ (2000) 51 *Annual Review of Psychology* 665.

<sup>19</sup> See Martin Hoffman, *Empathy and moral development: Implications for caring and Justice* (Cambridge University Press 2000); Nancy Einseberg et al., ‘Empathy-related Responding: Associations with Prosocial Behavior, Aggression, and Intergroup Relations’ (2010) 4(1) *Social Issues and Policy Review* 143.

<sup>20</sup> See Jean Decety & Yoshiya Moriguchi, ‘The empathic brain and its dysfunction in psychiatric populations: Implications for intervention across different clinical conditions’ (2007) 1 *Biopsychosocial Medicine* 22.

<sup>21</sup> See Haidt n. 8 (“[M]orality is not just about being nice”).

<sup>22</sup> June Price Tagney et al., ‘Moral emotions and moral behavior’ (2007) 58 *Annual Review of Psychology* 345.

<sup>23</sup> Frans Schalkwijk et al., ‘The Conscience as a Regulatory Function: Empathy, Shame, Pride, Guilt, and Moral Orientation in Delinquent Adolescents’ (2016) 60(6) *International Journal of Offender Therapy and Comparative Criminology* 675.

<sup>24</sup> Rimma Teper et al., ‘How emotions shape moral behavior: Some answers and questions for the field of moral psychology’ (2015) 9 *Social and Personality Psychological Compass* 1, 8 (“Although there is some

the severity of moral judgments, in the sense that it intensifies the strength of individuals' judgments of moral transgressions.<sup>25</sup> More specifically, disgust is triggered by people or behavior appraised as *impure*. This means that feeling disgusted by moral violations of purity predicts harsher moral criticism of those people or actions. For instance, disgust is a major factor in the condemnation of homosexuals. Attempts to exclude homosexuals from society - however these attempts might appear outrageous to the large majority of people- are indeed to be interpreted as attempts to impose, defend, or rectify a particular (subjective and maladaptive) moral order against perceived threats.

Other work connects compassion to concerns about caring for and reducing harm to others, particularly those in need. Compassion is aroused by perceptions of need, suffering, or weakness, and motivates prosocial action even if costly to the self.<sup>26</sup> Research finds that compassion prominently shapes moral judgments of harm and care; for instance, people report greater willingness to help those for whom they feel sympathy.<sup>27</sup>

Apart from moral emotions, also "basic" emotions are thought to play an important role in moral behavior. Fear, for instance, is triggered and partly characterized by appraisals that events are uncertain and outside of one's control. As a result, when an individual feels fear, subsequent relevant judgments reflect increased concerns about uncertainty and reduced control, even when the object of judgment (e.g., estimates of future events) is unrelated to the original cause of the fear.<sup>28</sup>

The psychological insights into the role of emotions in influencing moral judgments and behavior significantly disavows the folk rationalist view, adopted by criminal law, that sees emotions as irrelevant to moral decisions and actions. On the contrary, emotions either inform moral judgments and behavior, or hinder them. As Jess Prinz

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evidence to suggest that a lack of affective experience is what facilitates some moral transgressions, there also exist empirical studies that imply some moral transgressions may be products of "condemning" moral emotions such as anger, aggression, and disgust").

<sup>25</sup> Cristina Elena Ivan, 'On Disgust in moral judgments: A review' (2015) 6(1) Journal of European Psychology Student 25.

<sup>26</sup> Jennifer Goetz et al., 'Compassion: An evolutionary analysis and empirical review' (2010) 136(3) Psychological Bulletin 351.

<sup>27</sup> Greg Schmidt & Bernard Weiner, 'An attribution-affect-action theory of behavior: Replications of judgments of help-giving' (1988) 14 Personality and Social Psychology Bulletin 610. Just like empathy, sympathy is an emotional tendency which involves feelings of concern for the emotional state of another, but does not necessarily involve the vicarious experience of the other person's feelings or emotions. See Einseberg n. 19.

<sup>28</sup> Horberg n. 17, 238.

puts it in his sentimentalist theory of moral judgments, “[e]motions co/occur with moral judgments, influence moral judgments, are sufficient for moral judgments, and are necessary for moral judgments, because moral judgments are constituted by emotional dispositions”.<sup>29</sup> Put differently, it is precisely the emotional significance that makes us attribute a certain moral value to a certain action, and hence inform our conscious decision whether or not to engage in particular conduct. Performing actions requires also, and primarily, a feeling of their social/moral meaning, rather than mere factual consciousness of their materiality.

All in all, psychological literature shows the extraordinary influence that emotions have on moral behavior. Importantly, these insights are confirmed and supported by the neuroscientific advances on the brain dynamics that appear to be correlated with moral decision-making processes, as well as by criminological and neurocriminological research into the neural correlates of antisocial behavior. As will be made plain in the next Sections, emotion brain circuits have been associated with morality at both structural and functional levels. That is, emotion brain circuits appear to significantly mediate decisional processes in moral judgments. In conjunction with moral psychology, research in cognitive and affective neuroscience delineates a brain-based framework of moral decision-making processes that disavows the rationalist views assumed by criminal law.

### III. HOW EMOTION INFORMS DECISION-MAKING IN THE BRAIN: INSIGHTS FROM COGNITIVE AND AFFECTIVE NEUROSCIENCE

Behavioral insights about the relationship between emotions, decision-making, and behavior are supported by the neuroscientific findings about the brain circuits involved in decision-making processes. Consistent with the behavioral-psychological perspective, neuroscientists maintain that emotion is vital to our brain life, as well as to our decision-making processes, notably in moral contexts. Thus, the orthodox paradigm of the Legally Relevant Mind also fails when measured against the neuroscientific explanation

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<sup>29</sup> Jess Prinz, ‘The emotional basis of moral judgments’ (2006) 9(1) *Philosophical Explorations* 29, 36.

about the brain dynamics underlying decision-making processes, for neuroscientific studies show this paradigm to be largely *neurobiologically unrealistic*.

The next subsections will elucidate in more detail how emotions work in the brain.

## A. The Feeling Brain: The Neurobiological Underpinnings of Emotion

### 1. *What are emotions?*

Neuroscientists define emotions as “neural impulses that move an organism to action, prompting automatic reactive behaviors adapted through evolution and experience as mechanisms to meet survival needs”.<sup>30</sup> By helping us to identify and evaluate salient external stimuli, emotions prompt appropriate reactions and thus adapt behavioral responses to given contexts. As Gladwell put it, emotion forms our “adaptive unconscious”, which is vital to our survival and social functioning.<sup>31</sup>

Like psychologists, neuroscientists also divide emotions into different categories. Neuroscientist Antonio Damasio, for example, divides emotions into three different macro-groups:<sup>32</sup> primary emotions, secondary emotions, and background emotions. Within the first group - primary emotions - he notes several basic, universal (i.e. common to both human and non-human beings) emotions, conveyed in facial expressions recognized across cultures: disgust, fear, happiness, sadness, surprise, and anger. Secondary emotions, also known as social emotions (what I have above referred to as moral emotions), involve embarrassment, guilt, jealousy, and pride. Finally, background emotions include calm, tension, or well-being.

Similarly, Jaan Panksepp - the founder of “affective neuroscience”<sup>33</sup> - classifies emotional processes through three different levels - primary, secondary, and tertiary.

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<sup>30</sup> See David B. Arciniegas, ‘Emotion’ in David Arciniegas et al. (eds) *Behavioral Neurology and Neuropsychiatry* (2013) ch.18, 266.

<sup>31</sup> Malcom Gladwell, *Blink: The power of thinking without thinking* (Back Bay Books 2005) 11.

<sup>32</sup> See Antonio Damasio, *The feeling of what happens: Body and emotion in the making of consciousness* (Harcourt Brace & Company 1999) 50-51.

<sup>33</sup> See Jaan Panksepp, *Affective neuroscience: The foundations of human and animal emotions* (Oxford University Press 1998).

The primary processes (basic-primordial affective states) involve basic urges, instincts and emotional affects. All mammals share them, and they are grounded in sub-neocortical structures. Panksepp identifies seven different primary processes (or core emotional operating systems) - SEEKING, FEAR, LUST, RAGE, CARE, PANIC/GRIEF, PLAY-<sup>34</sup> with different neural pathways and different evolutionary purposes. As we shall see in subsection c), these processes are primal states of affective consciousness and thus elaborate various distinct feelings. The secondary processes include emotional habits and conditioning. These processes involve the amygdala, the basal ganglia, and the dorsal striatum. Tertiary processes are mostly cognitive, for they encompass executive functions and emotion regulation. They only involve the neocortex.

Other neuroscientists, instead, classify emotions based on whether or not they involve characteristic cognitions - like conscious processing of external stimuli. For example, Joseph LeDoux explains that there are two ways by which *fear* can be processed: via “the low road”, or the ventral path, involving primarily subcortical regions without the intervention of cognitive processing; and via the “high road”, i.e. the dorsal path, requiring complex cognitive processing.<sup>35</sup> The low road (e.g., involving the amygdala) provides a set of quick behavioral responses to the emotional stimulus, and thus prompts the organism to respond very rapidly. As is primarily aimed at satisfying survival needs, the low road can be lifesaving. The high road is instead slower and more deliberative, in the sense that it allows for a more careful elaboration and evaluation of the emotional stimulus, as well as its context. This careful elaboration requires cognitive processing of the emotional stimulus.

Based on LeDoux’s empirical findings on how basic emotional pathways can be processed in the brain, some researchers<sup>36</sup> have derived a classification of emotions into, basic, primary cognitive, and secondary cognitive. Basic emotions are the most

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<sup>34</sup> SEEKING is a motivation system; FEAR is a defensive system; RAGE is a protection system; LUST is a procreation system; CARE AND PANIC/GRIEF are social bonding systems; PLAY is a social interactions system. Panksepp himself names the emotional systems by using capital letters. The reason is that he wants to underline their neural substrates, rather than their commonsense-based meanings. See *id.*, ‘Part II: Basic Emotional and Motivational Processes’.

<sup>35</sup> Joseph LeDoux, *The emotional brain: The mysterious underpinnings of the emotional life* (Simon & Schuster Paperback 1998) ch.6.

<sup>36</sup> Alexandra Zinck & Albert Newen, ‘Classifying emotion: a developmental account’ (2008) 161(1) *Synthese* 1.

evolutionarily ancient emotions; they do not trigger independently of any slower cognitive process, they are primarily instinctual, and they generally provoke faster responses.<sup>37</sup> Primary cognitive emotions are extensions of the basic emotions in which a minimal set of cognitive content - evaluation or appraisal about current situation- is present in the emotional pattern. Finally, secondary cognitive emotions are the most complex, highly cognitive emotions. Their complexity involves “(i) a cognitive evaluation of a situation, (ii) beliefs about concrete social relations to individuals as well as about general social norms, and (iii) expectations or hopes concerning the future given the situation. [...] The involved sets of cognitive contents thus do not only contribute nuances that may affect the expression of emotions, but also concern the core of the emotion itself.”<sup>38</sup>

Common to all of these definitions is the idea that emotions are an affective experience that is characterized by physiological changes and defined by a cognitive construal of some kind. Notwithstanding the different classifications, emotions comprise both innate emotional responses (e.g., innate fear), while the second group - most of them - comprises emotions that are learned by *experience* (like moral emotions). As we shall see, all categories of emotions are neurobiologically relevant to our decision-making and social functioning.

## 2. *What are the neurobiological functions of emotions?*

Most neuroscientists agree that emotions serve a crucial role in our social life. Though most of our emotional life happens subconsciously, still emotions help us stay in tune with ourselves, other individuals, and the outside environment at a non-verbal level. Neuroscientists have identified a number of different crucial neurobiological functions served by emotions.

According to LeDoux, emotions primarily serve a *survival function*.<sup>39</sup> From an evolutionary perspective, the primary neurobiological function of emotions in the brain

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<sup>37</sup> These (short-term) responses only involve limited cognitive processing with focus on the actual situation.

<sup>38</sup> Zinck & Newen n. 36, 14.

<sup>39</sup> See LeDoux n.35; See also Joseph LeDoux, ‘Rethinking the emotional brain’ (2012) 73(4) Neuron 653.

is to prompt automatic responses to satisfy basic survival needs. When elicited by an external stimulus, the autonomic nervous system anticipates the threat and prepares the body to respond appropriately to that stimulus. By only serving survival functions, emotions do not contribute to the emotional dimension of an individual. In other words, having emotions does not make an individual a “feeler”.<sup>40</sup> Rather, they only make an individual able to react appropriately to external stimuli, thereby providing him with necessary means to survive. For instance, when an individual is confronted with an external threat, his autonomic nervous system will anticipate the threat and prepare his body to respond to it appropriately. This automatic response is what is commonly referred to as “fear”.<sup>41</sup> However, according to LeDoux, it would be technically more appropriate to call this motivational state as “threat-induced defensive reaction”,<sup>42</sup> while the word fear should be reserved for the feeling aspect of emotions.<sup>43</sup> On the whole, LeDoux understands emotions as motivational urges that allow us instinctively to assess danger and protect ourselves.

Antonio Damasio, instead, suggests that emotions (and feelings) play a *biological regulation* function.<sup>44</sup> This function is twofold: first, emotions prompt specific reactions to the inducing situation. Second, and accordingly, emotions foster the maintenance of body internal integrity such that an organism can be prepared for specific reactions. In this sense, emotions are “barometers of body management”,<sup>45</sup> for emotions are part of the regulation of one’s “homeostasis”. Homeostasis (from Greek words *homeo* meaning ‘same’, and *stasis* meaning ‘stability’) describes the automatic “tendency of the body to maintain optimal internal conditions in the face of widely fluctuating external conditions”.<sup>46</sup> Drawing on Bard and Cannon’s “Fight or flight”<sup>47</sup> theory of emotion,

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<sup>40</sup> See Joseph LeDoux, ‘Feelings: What are they & how does the brain make them?’ (2015) 144(1) *Daedalus*, the Journal of the American Academy of Arts and Sciences 96, 100 (“What are commonly called emotion functions in humans and animals are not emotional functions at all. They do not exist to make feelings. They are survival functions essential for the continued life of the individual or the species.”).

<sup>41</sup> Joseph LeDoux, ‘The slippery slope of fear’ (2013) 17 *Trends in Cognitive Science* 155.

<sup>42</sup> *id.*

<sup>43</sup> *id.*

<sup>44</sup> See Damasio n. 32, 53.

<sup>45</sup> Antonio Damasio, *Self comes to mind: Constructing the conscious brain* (Pantheon Book 2010) 56.

<sup>46</sup> Elizabeth Johnston & Leah Olson, *The feeling brain: The biology and psychology of emotions* (Norton & Company 2015) 6.

<sup>47</sup> See Jon E. Roedeliein, ‘Cannon/Cannon-Bard Theory’ in Jon Roedeliein, *Dictionary of Theories, Laws, and Concepts in Psychology* (Greenwood Press 1988) 87-88.

Damasio holds that emotions are evolutionarily designed to motivate and drive our behavior to bring us back into homeostasis.<sup>48</sup> For example, when we are confronted with a threatening situation, the negative emotion of fear puts our brain and our body out of balance, for it provokes physiological changes such as rapid heartbeat and breathing. While provoking physiological changes, fear will predict the threat and prompt us to respond to and cope with that threat, and thus regain homeostasis by adjusting its physiological processes.

A third main neurobiological function of emotion, which is central to the scope of this work, focuses on the *appraisal function* of emotion. According to this approach, the function of emotion is primarily evaluative. Our emotional brain immediately and automatically evaluates anything that we encounter. More specifically, our “emotional brain” constantly appraises external stimuli for positive or negative valence (e.g. good or bad, right or wrong), and thus helps us respond quickly to those stimuli. In so doing, emotion acts to provide meaning and value to the information being processed, and thus acts as strong influences to pursue appropriate behavior in response to that appraised information. Importantly, as will be made plain, emotional appraisals strongly influence cognitive functions. As Lewis and Todd specify,

“the biological function of emotion is to impel appropriate behavior, given past learning and precedent circumstances, by steering attention toward useful options for acting on the world and urging one to pursue them. Thus, cognition in general [...] is assumed to be guided by emotional relevance”.<sup>49</sup>

Putting together all three main functions attributed to emotions, we can infer that emotions are motivational states that prompt an organism to react to a given stimulus in an appropriate way. As emotions are states indexing occurrences of value, they carry functional value in physiologically preparing the body for action, permitting flexibility

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<sup>48</sup> Damasio n. 32, 54 (“At their most basic, emotions are part of homeostatic regulation and poised to avoid the loss of integrity that is a harbinger of death as well as to endorse a source of energy, shelter, or sex”).

<sup>49</sup> Mark Lewis & Rebecca Todd, ‘Getting emotional: a neural perspective on emotion, intention, and consciousness’ (2005) 12 *Journal of Consciousness Study* 210, 212; Piotr Winkielman et al., ‘Emotions, consciousness and social behavior’ in J. Decety & J. Cacioppo (eds), *The Oxford Handbook of Social Neuroscience* (Oxford University Press 2011) 195.

of behavioral responses to reinforcing stimuli, facilitating adaptive behavior, and influencing cognitive processes. Emotions ultimately produce motivation and direction of behavior, to help an individual to achieve a goal.

On the whole, emotions serve a crucial role: they predispose behavioral responses by providing a set of preferences by which all decisions must be evaluated, and, as such, prioritize and guide all decisions. In so doing, emotions are the core driving force of behavior.

### 3. *Where are emotions processed in the brain?*

Human emotions are not located in a single brain site; rather, their processing involves interconnected brain circuits. For a long time, however, the emotional brain has been identified with the limbic system. That is, the limbic system has been considered to be the only system mediating *all* emotions<sup>50</sup>. The amygdala - and other subcortical regions - were thought to be the only location of emotional life in the brain. By and large, emotions were thought to be animalistic-laden states belonging to the most primitive part of the brain, opposed to the most developed cognitive one - i.e. the neocortex.

The idea that only the limbic system forms the emotional brain has been harshly criticized by later neuroscientists working on emotions, beginning with Joseph LeDoux.<sup>51</sup> LeDoux argued that the one-dimensional perspective of the emotional brain is significantly flawed. Its most significant shortcoming is that limiting the emotional brain to the limbic system is in contrast with the evolutionary path of emotions, for different brain systems evolved to serve different emotional functions. LeDoux supports the so called *locationist* approach, which assumes that each basic emotion category (e.g. happiness, anger) has its own specialized *neural circuitry*. For instance, by focusing on how fear is processed in the brain, LeDoux maintains that the amygdala is the major fear-processing structure as well as a central player (although it is not the only one) in more general emotional processes.

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<sup>50</sup> See James W. Papez, 'A proposed mechanism of emotion' (1937) 79 Archives of Neurology and Psychiatry 725; Paul MacLean, 'Psychosomatic disease and the "visceral brain": Recent developments bearing on the Papez theory of emotion' (1949) 11 Psychosomatic Medicine 338.

<sup>51</sup> LeDoux n. 35.

Drawing on this approach, part of neuroimaging work tends to “locate” specific emotions in specific brain regions: for instance, fear tends to be linked with the amygdala,<sup>52</sup> disgust with the Insula,<sup>53</sup> anger with the Orbitofrontal Cortex (hereafter OFC),<sup>54</sup> and sadness with the Anterior Cingulate Cortex (hereafter ACC).<sup>55</sup> Among these studies, affective neuroscientist Richard Davidson, together with Paul Ekman, explored with Electroencephalography (EEG) and functional magnetic resonance imaging (fMRI) methodology the neural differences between positive and negative basic emotions, in particular happiness and disgust. The study showed that while positive emotions (like happiness) activated more right both frontal and temporal regions, negative emotions (like disgust, or anger) activated more the left ones.<sup>56</sup>

Another approach, instead, supports the so called *psychological constructionist* perspective,<sup>57</sup> according to which either one brain region may be involved in more than one emotion, or a single emotion may involve a network of brain regions. Every emotional response may require the participation of many brain regions - a brain network. Different emotion networks may share same brain structures, and specific brain regions may participate in multiple emotions, making it difficult to find a unique brain signature for each basic emotion. For example, while under the locationist approach the amygdala is the main hub responsible for fear, under the functionalist approach, the amygdala - apart from storing fear - is also part of the brain network responsible for identifying emotionally salient stimuli, like rewarding stimuli.

In line with the constructionist approach, other affective neuroscientists have expanded the emotional brain upward and downward. In particular, recent studies on the brain support the view that emotional processes also involve significant participation

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<sup>52</sup> Ralph Adolphs et al., ‘Fear and the human amygdala’ (1995) 15(9) *The Journal of Neuroscience* 5879.

<sup>53</sup> Paul Wright et al., ‘Disgust and the insula: fMRI responses to pictures of mutilation and contamination’ (2004) 15(15) *Neuroreport* 2346.

<sup>54</sup> Fredereike Beyer et al., ‘Orbitofrontal cortex reactivity to angry facial expression in a social interaction correlates with aggressive behavior’ (2015) 25(9) *Cerebral Cortex* 3057.

<sup>55</sup> Fionnuala C. Murphy et al., ‘Functional neuroanatomy of emotions: a meta-analysis’ (2003) 3 *Cognitive Affective Behavioral Neuroscience* 207.

<sup>56</sup> Richard Davidson et al., ‘Approach-withdrawal and cerebral asymmetry: Emotion expression and brain physiology I.’ (1990) 58 *Journal of Personality and Social Psychology* 330.

<sup>57</sup> Kristen A. Lindquist, ‘The brain basis of emotion: a meta-analytic review’ (2012) 35(3) *Behavioral and Brain Sciences* 121; Kristen Lindquist & Lisa Feldelmann Barrett, ‘A functional architecture of the human brain: emerging insights from the science of emotion’ (2012) 16(11) *Trends in Cognitive Science* 533.

from brain stem systems and neocortical areas.<sup>58</sup> More specifically, while most of our emotional life is processed unconsciously by subcortical areas - in particular, the brain stem and the limbic system-, some emotional processes also involve significant participation from prototypical neocortical areas, like the Ventromedial Prefrontal Cortex (hereafter VmPFC). It is certainly true that limbic structures, notably the amygdala, generates emotional arousal as a result of certain perceptual inputs. However, the amygdala is only little involved in the mediation of emotional processes. Indeed, his task is served by specific areas of the prefrontal cortex, notably the OFC and the VmPFC.<sup>59</sup>

By and large, the main brain areas that are traditionally associated with the “emotional brain” are: the cingulate gyrus, which is considered to be crucial in emotion regulation; the (anterior) insula, which is thought to underpin our subjective awareness of all feelings, our emotional awareness;<sup>60</sup> the VmPFC and the OFC, which are responsible for emotional valuing of stimuli and mediation of emotional responses; last but certainly not least, the amygdala, i.e. the “emotion generator” of the brain, which is crucial in both fear conditioning and emotional salience in general. In particular, empirical findings indicate that the amygdala is responsible for attributing either positive or negative valences - good or bad - to salient stimuli,<sup>61</sup> as well as for the emotional arousal needed to respond to either a rewarding or an aversive stimulus.<sup>62</sup> On the whole, the amygdala is a key-component of the neural circuit for both emotional responses and emotional evaluation of external stimuli, and is a crucial component of the neurocircuitry involved in empathy, emotional learning, and prosocial behavior.

One crucial aspect is that there is not a clear-cut distinction between cognitive and emotional brain circuits, for there are pervasive interactions between emotion and

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<sup>58</sup> See, e.g., Don Tucker et al. ‘Anatomy and Physiology of Human Emotion: Vertical Integration of Brainstem, Limbic, and Cortical Systems’ in J. Borod (ed), *Handbook of the Neuropsychology of Emotion* (Oxford University Press 2000) ch.3.

<sup>59</sup> *id.*

<sup>60</sup> See, e.g., Xiaosi Gu, ‘Anterior Insular Cortex and Emotional Awareness’ (2013) 521(15) *Journal of Comparative Neurology* 3371.

<sup>61</sup> Hugh Garavan et al., ‘Amygdala response to both positively and negatively valenced stimuli’ (2001) 12(12) *Neuroreport* 2779; Sara Morrison & Daniel Salzman, ‘Re-valuing the amygdala’ (2010) 20(2) *Current Opinions in Neurobiology* 221.

<sup>62</sup> Mark G. Baxter & Elisabeth A. Murray, ‘The amygdala and reward’ (2002) 3 *Nature Reviews Neuroscience* 563; Marina Belova et al., ‘Expectation modulates neural responses to pleasant and aversive stimuli in primate amygdala’ (2007) 55(6) *Neuron* 970.

cognition in the brain. Limbic structures (prototypical emotion) give colour to our emotional lives and, if paired with a functioning prefrontal cortex (prototypical cognition), help guide our decision-making. Section III.B will precisely focus on the latter issue: it will look at how emotion interacts with cognition in the brain, and thus how these interactions contribute to rational decision-making processes.

#### 4. *Emotions and Feelings*

In common language, emotions and feelings are used interchangeably. Emotions are usually referred to as something that is *felt*. We generally call an emotion our feeling of fear, happiness, anger, and so on. Neuroscientists, however, maintain that emotions and feelings are different states, and thus employ the two terms to refer to different processes.

On the one hand, emotions refer to the automatic responses evoked by either external or interoceptive salient stimuli. On the other hand, feelings are the subjective experience, or awareness, of said emotional responses. While emotions are mostly unconscious, feelings imply some degree of awareness. When a stimulus occurs, we react subconsciously with our emotions. Only after the emotion - that is, the automatic response to that stimulus - has occurred, we become aware of it. This state of awareness is what transforms an emotion into a feeling. In other words, it is only when we get to a stage of awareness of the processes activated by an emotion that we have a feeling.

Although there is a common view on what kind of states emotions and feelings are, neuroscientists hold heterogeneous positions on the exact neurobiological underpinnings of emotions and feelings.

LeDoux, for example, suggests that emotions and feelings serve radically different functions, and thus cannot be placed on the same level.<sup>63</sup> Emotions are adaptive responses to critical environmental challenges. An emotional reaction is a pivotal behavior of all organisms, both human and nonhuman. Emotions form automatic behavioral responses, motivational states to external stimuli that serve survival

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<sup>63</sup> LeDoux n. 40, 96.

functions. However, emotions do not contribute to the emotional life of an individual. As he puts it, the circuits involved in automatic responses to external stimuli (namely, emotions) “did not evolve to make feelings”.<sup>64</sup> On the other hand, feelings are the aware and self-reported experience of an emotional response. Feelings are a matter of consciousness.<sup>65</sup> As they imply elements of consciousness, feelings may be something not present in animals other than humans. Also, and more importantly, because “feelings are parasitic on the capacity for conscious awareness – [they] crucially depend on cognitive processes”.<sup>66</sup>

LeDoux illustrates these claims through an explanation of how fear can be processed in the brain: when we are confronted with a threatening situation, our amygdala activates a defence mechanism that prompts us to respond with a certain behavioral response. This mechanism does not automatically imply a *feeling* of fear. The feeling of fear depends on different brain circuits than those involved in the emotional pathway. These circuits involve higher cortical areas - such as the frontal cortex, and the parietal cortex- which all contribute to “attention-controlled representations of objects and memories”,<sup>67</sup> and thus form the “cognitive work-space sometimes called working memory”.<sup>68</sup> LeDoux considers working memory, i.e. the capacity to consciously hold information in mind, to be central in conscious experience. As he puts it, the conscious feeling of a given emotion largely depends on working memory.<sup>69</sup>

On the whole, LeDoux views that emotions are raw instincts, or urges, which share very little with the conscious experience of feelings. The former belongs mostly to the primitive subcortical dimension of our brain. The latter involves cognitive functions - and thus neocortical regions- that are crucial ingredients of our consciousness. More

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<sup>64</sup> LeDoux n. 40, 102.

<sup>65</sup> LeDoux draws on the theory of consciousness developed by Michael Gazzaniga. For Gazzaniga, consciousness is an “interpreter of experience”, which helps us get in touch and report our motivations and actions that arise from non-conscious brain processes. As such, consciousness is only accessible via introspection. See Michael Gazzaniga, *Nature's mind* (Basic Books 1992). It is worth noting that LeDoux has recently revised his theory of emotional consciousness: see Joseph LeDoux & Richard Brown, ‘A higher-order theory of emotional consciousness’ (2017) 114(10) PNAS E2016.

<sup>66</sup> LeDoux n. 40, 104.

<sup>67</sup> *id.* 101.

<sup>68</sup> *ibid.*

<sup>69</sup> *id.* 102 (“In my view, once information about the presence of a threat is directed to working memory the stage is set for a conscious feeling [...] to occur. Working memory is not the same thing as consciousness, but in my opinion most of the conscious experiences we have depend on working memory.”).

specifically, while subcortical areas initiate and drive our motivations to unconsciously cope with external salient stimuli, neocortical areas contribute to our conscious experience of emotions, and thus to our emotional life. Consciousness, and therefore prototypical cognitive systems and functions, are what make us emotional.

Contrary to LeDoux's position, Panksepp suggests that we are provided with two types of consciousness, involving different brain circuits: the first is affective, and involves subcortical regions, the second one is cognitive, and involves neocortical regions.<sup>70</sup> Affective feelings (i.e., the way we experience emotions) arise from affective consciousness. Panksepp condemns the "tragedy of the twentieth century behaviourism"<sup>71</sup> which situated all our consciousness at the very top of the brain, especially in executive functions. On the contrary, Panksepp suggests that the emotional life, i.e. the affective feelings, of all mammals derive from the core, affective consciousness. Panksepp defines feelings as "the valenced phenomenal experiences (qualia) that come in desirable (positive) and undesirable (negative) forms and varieties".<sup>72</sup> According to Panksepp, affective feelings reflect our perceptions of goodness and badness in our interactions with the outside world. They are the natural evolution of our core affective pathways. They give us a sense of self.

As expression of our "core consciousness", affective feelings emerge largely from specific subcortical circuits where slowly firing neural systems abound. These robust but slowly firing systems help generate emotional affects. Therefore, subcortical systems may generate "raw affective experiences" without any need to interact with higher cognitive mechanisms.<sup>73</sup> Basic emotional and motivational responses, and the accompanying feelings (types of valence), reflect intrinsic evolutionarily dictated states of the nervous system. They have their own structure, and neither their existence nor their functions depend on cognitions (perceptions of external stimuli and following

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<sup>70</sup> Jaak Panksepp, 'At the interface of the affective, behavioral, and cognitive neuroscience: Decoding the emotional feelings of the brain' (2003) 52 *Brain and Cognition* 4.

<sup>71</sup> Jaak Panksepp et al., 'A synopsis of affective neuroscience - Naturalizing the mammalian mind' in 'The philosophical implications of affective neuroscience' (2012) 19(3-4) *Journal of consciousness studies* 6, 15.

<sup>72</sup> Jaak Panksepp, 'The basic emotional circuits of mammalian brains: Do animals have affective lives?' (2011) 35 *Neuroscience and Biobehavioral Reviews* 1791, 1791.

<sup>73</sup> Panksepp n. 71, 12 ("The primary-process affective states do not require neocortical reflective capacities. Animals and humans deprived of their neocortical tissues at birth retain solid instinctual indices of experiential states. They remain conscious beings.").

appraisals). Cognitive functions, on the other hand, “[...] allow organisms to navigate effectively in space, time, and among the object of the world (often toward affective goals)”<sup>74</sup>.

In the same vein as Panksepp, Antonio Damasio conceptualizes feelings as natural evolutions of emotions. More specifically, “emotions and feeling of emotions are distinct aspects of a functional sequence that begins when an object or situation triggers a specific behavior - the emotion - which is followed rapidly by the perception of the changes related to the behavior - the feeling of emotion”<sup>75</sup>. While emotions are evolutionary adaptations, unaware, and embodied states that trigger physiological responses to external stimuli,<sup>76</sup> feelings are nothing more nor less than the conscious perceptions, the lasting memory, a neural and mental representation of emotions. To put it simply, emotions provoke changes in the body. These bodily changes are projected and mapped in the brain. Bodily changes may remain non-conscious or may be experienced consciously as ‘feelings’. Therefore, emotionally-salient stimuli may lead to feelings indirectly by triggering an emotion that causes a change in body state which is subsequently ‘felt’.

The line between the emotion and the feeling may thus be very blurred. As feelings are the natural sequence of emotions, we may say that our feeling of a given emotion is ultimately the emotion *per se*. As each feeling is the natural corollary of a respective emotion, two things can be referred to by using same names (e.g., *fear* can be both an emotion, *quo* body state of change triggered by an external threat, and a feeling, *quo* conscious perception of the body change).

According to Damasio, while ‘emotions-proper’ are always unconscious, feelings may or may not involve consciousness. He spots three stages of emotional processing along a continuum: “*a state of emotion*, which can be triggered and executed nonconsciously; *a state of feeling*, which can be represented nonconsciously; and *a state*

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<sup>74</sup> Panksepp n. 70, 6.

<sup>75</sup> Antonio Damasio, ‘The neural basis of emotion’ (2011) 6(3) Scholarpedia 1804, URL= < <http://scholarpedia.org/article/Emotion> > accessed 27 December 2016.

<sup>76</sup> See Antonio Damasio & Gil Carvalho, ‘The nature of feelings: Evolutionary and neurobiological origins’ (2013) 14(2) Nature Reviews Neuroscience 143, 144 (referring to emotions - and drives- as “action programmes - i.e. sets of innate, programmed physiological actions aimed at addressing the detected changes and thereby maintaining or restoring homeostatic balance”).

*of feeling made conscious*, i.e., known to the organism having both emotion and feeling.”<sup>77</sup> - or, what he also calls “feeling a feeling”.<sup>78</sup>

Importantly, for Damasio, emotions affect the mind when they evolve into feelings.<sup>79</sup> Therefore, the full and lasting impact of feelings requires some degree of consciousness, for “only along with the advent of a sense of self do feelings become known to the individual having them”.<sup>80</sup> On the one hand, feelings contribute to conscious awareness of our emotions and guide adaptive behavior.<sup>81</sup> On the other hand, “consciousness allows feelings to be known (or, more correctly, felt), and thus allows emotion to permeate the thought process through the agency of feeling”.<sup>82</sup> As consciousness is a sort of bridge between emotion, feeling, thought and behavior, Damasio holds that emotions, feelings of emotions, and consciousness all serve survival and adaptive functions.

As feelings are more complex states than emotions, they yield further neural patterns. In a PET study<sup>83</sup> investigating the neural correlates of the feeling of four primary emotions (happiness, sadness, anger, and fear), Damasio and his colleagues found out that while ‘emotions-proper’ generally engage the amygdala and the OFC, feelings also involve a variety of regions along the ‘neuroaxis’. The regions along the neuroaxis are both cortical and subcortical, and include the insular cortex, secondary somatosensory cortex, anterior and posterior cingulate cortex, hypothalamus, and the brainstem.

Whatever theorization has been offered, main neuroscientific studies share the view that affective states (both emotions and feelings) play a central role (either direct or indirect, consciously or unconsciously) in decision-making and behavior. Let us move now to explore how emotions and feelings, when paired with cognitive functions,

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<sup>77</sup> Damasio n. 32, 37.

<sup>78</sup> *id.* 68.

<sup>79</sup> *id.* 36 (“It is through feelings, which are inwardly directed and private, that emotions, which are outwardly directed and public, begin their impact on the mind”).

<sup>80</sup> *ibid.*

<sup>81</sup> See Damasio n. 75 (“[F]eelings play a practical role in adaptive behavior and extend the advantages of emotions to the realm of conscious behavior.”).

<sup>82</sup> Damasio n. 32, 56.

<sup>83</sup> Antonio Damasio et al., ‘Subcortical and cortical neural bases of the feeling of self-generated emotions’ (2013) 14(2) Nature Reviews Neuroscience 143.

underlie decision-making processes in the brain, and how these processes impact human behavior.

B. When Emotion Meets Cognition:  
The Strict Interdependence of Subcortical and Neocortical circuits in  
Decision-Making Processes

As mentioned above, the emotional life of individuals has generally been “located” in subcortical brain regions, notably in the limbic structures. Brain researchers long assumed that the brain regions that process emotions were distinct from those devoted to cognitive functions. More specifically, traditional neurosciences have long tended to attribute emotion to the primitive part of the brain, while cognition was attributed to highly developed, neocortical regions.

In contrast with the traditional perspective, an increasing number of studies have showed that emotional processes also, and crucially, depend on neo-cortical regions. An emblematic study supporting this perspective is contained in Damasio’s *Descartes’ Error*.<sup>84</sup> In this seminal work, Damasio maintains that emotion is a crucial component of reason, in the sense that emotional functioning - just like cognitive intellectual functions- depends critically on also neocortical regions of the brain.

Damasio grounds this challenging claim in the analysis of the very famous (and curious) case of Phineas Gage,<sup>85</sup> the railroad man from Vermont (USA) who was victim of an accident that blinded its left eye and seriously compromised his left frontal lobe. As the story goes, Gage’s cognitive functions - reasoning, abstract thinking, planning, language, etc. - remained absolutely intact after the accident. The “only” change he had was a marked alteration in emotional functioning, as well as in decisions affecting his social and personal life.

Drawing on Gage’s, and similar patients’,<sup>86</sup> story, Damasio came to a double conclusion: first, that emotional functioning also depends on the brain prefrontal regions

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<sup>84</sup> Antonio Damasio, *Descartes’ Error: Emotion, reason and the human brain* (Picador 1994), ch. 1 and 2.

<sup>85</sup> See also Hanna Damasio et al., ‘The return of Phineas Gage: Clues about the brain from the skull of the famous patient’ (1994) 264(5162) *Science* 1102.

<sup>86</sup> I am referring to Damasio’s famous frontal lobe patient, Elliot. See *infra* Chapter Three, Section II.C.

and, second, that emotion plays a crucial role in social decision-making and behavior. Importantly, emotions can have either positive or negative effects on decision-making processes and personality even when cognitive functions are intact.

Based on these intuitions, Damasio concluded that it is precisely the strict separation between cognition and emotion - that is, between Reason and emotion - that forms “the Descartes’ error”. On the contrary, emotions and feelings are crucial components of Reason, for emotions and feelings considerably influence information processing in the brain, our decision-making and, ultimately, our behavior. On the whole, Damasio emphasizes the crucial role of emotion in informing reason as we navigate through our social lives. The neocortex allows us to pause and consider our options, to process and modulate emotional information. The integration of the PFC with the limbic system is necessary for emotional and relational well-being.

Damasio’s view on emotion and cognition is now strongly supported in neuroscientific literature. Neuroscientific research has increasingly been uncovering the significant role of emotional brain circuits in decision-making processes, thereby attributing a fundamental function to emotions at guiding cognitive responses and, ultimately, behavioral outcomes.<sup>87</sup> Most neuroscientists now agree that emotion and cognition are equally important in determining decision-making processes. Importantly, emotional and cognitive processes *often* involve overlapping neural mechanisms, and therefore emotions are intertwined with cognition in a way that requires them to be analyzed interdependently.<sup>88</sup> On the whole, and supporting behavioral studies, neuroscience confirms that the contrast between cognition/rationality and emotion/irrationality is largely artificial, as emotions are, inescapably, also an essential component of effective rationality.

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<sup>87</sup> See, *inter alia*, Norbert Schwartz, ‘Emotion, cognition, and decision-making’ (2000) 14(4) *Cognition and Emotion* 433; Jennifer Lerner et al., ‘Emotion and decision-making’ (2015) 66 *The Annual Review of Psychology* 33.1; Sarah J. Banks et al., ‘Amygdala-frontal connectivity during emotion regulation’ (2007) 2 *Social Cognitive and Affective Neuroscience* 303; Nathaniel D. Daw et al., ‘Cortical substrates for exploratory decisions in humans’ (2006) 441 *Nature* 876; Amit Etkin et al., ‘Emotional processing in anterior cingulate and medial prefrontal cortex’ (2010) 15(2) *Trends in Cognitive Science* 85; Troy Ghashghaei et al., ‘Sequence of information processing for emotions based on the anatomic dialogue between prefrontal cortex and amygdala’ (2007) 34 *Neuroimage* 905; Rebecca Ray & David H. Zald, ‘Anatomical Insights into the interaction between emotion and cognition in the prefrontal cortex’ (2012) 36(1) *Neuroscience & Behavioral Reviews* 479.

<sup>88</sup> See Davidson n. 7, 91 (“[c]ognition would be rudderless without the accompaniment of emotion, just as emotion would be primitive without the participation of cognition.”).

Closer attention to the science of the brain can help elucidate the nature of these claims: our cognitive functions, whose neural correlates are prototypically “located” in the prefrontal cortex (hereafter PFC) and its adjacent areas, are largely influenced by emotional processes generated in the limbic system, in particular in the amygdala. In turn, the frontal cortical regions - in particular, the OFC and the VmPFC - are involved in the modulation of amygdala reactivity and the mediation of effective emotion regulation.<sup>89</sup> As Salzman and Fusi point out, “the amygdala is essential for many of the visceral and behavioral expressions of emotion; meanwhile, the PFC - in particular, medial and orbital regions of the PFC- appears to be responsible for many of the cognitive aspects of emotional responses”.<sup>90</sup> Importantly, as Lewis and Todds claim, while higher-brain systems (the PFC) rely on lower brain systems (the limbic area) to function properly, the reverse is not always true.<sup>91</sup>

The interdependence between these two brain systems is quantifiable through functional interconnections, i.e. a continuous exchange of information takes place between these two macro areas, giving rise to a circuit in which frontal regions receive feedback from the limbic system, and vice versa. Functional interactions between cognition and emotion are very complex - as they involve a variety of brain regions. For the sake of simplicity, it is sufficient to point out that neurons of the limbic system, the “location” of perception, memory, and consolidation of stimuli that have a strong emotional link, get connected with those of the PFC and its related structures; the neurons of the PFC, through cognitive strategies like reappraisal,<sup>92</sup> serve the role of mediating emotional influences on cognitive processes.

In this respect, Cunningham and Zelazo<sup>93</sup> have recently proposed an “interactive reprocessing (IR) model” to highlight the strict interactions among attitudes and different evaluative processes (especially, automatic and reflexive) and, importantly, the reprocessing of evaluative information about valenced stimuli. Central to their

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<sup>89</sup> See Banks n. 87, 303.

<sup>90</sup> Daniel Salzman & Stefano Fusi, ‘Emotion, cognition and mental state representation in amygdala and prefrontal cortex’ (2010) 33 Annual Review of Neuroscience 173, 175.

<sup>91</sup> Marc D. Lewis, Rebecca M. Todd, ‘The self-regulating brain: Cortical-subcortical feedback and the development of intelligent action’ (2007) 22 Cognitive Development 406, 407.

<sup>92</sup> Emotion reappraisal involves reinterpreting the valence of a stimulus in order to change the way in which we respond to it. See Banks n. 87.

<sup>93</sup> William Cunningham, Philip David Zelazo, ‘Attitudes and evaluations: a social cognitive neuroscience perspective’ (2007) 11(3) Trends in Cognitive Sciences 97.

hypothesis is that evaluations of salient stimuli - which inform the content of our decisional reaction- reflect a dynamic interaction between limbic and cortical structures. According to their model,

“Evaluations reflect one’s current appraisal of the stimulus, including whether it should be approached or avoided. When rendering an evaluation, one draws upon pre-existing attitudes [i.e. stable ideas about whether something is good or bad], together with novel information about the stimulus, contextual information and current goal states.”<sup>94</sup>

Importantly, this process is hierarchically mediated first by lower-order evaluative processes, which provide affectively laden information about valence (good and bad) and the arousal value of the evaluation, while high-order processes are recruited during subsequent interactions.<sup>95</sup>

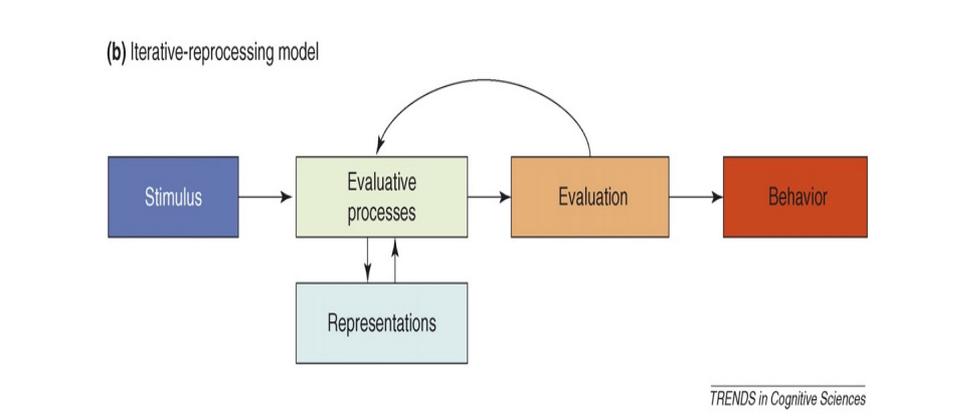


Fig. 1: Cunningham and Zelazo’s IR model<sup>96</sup>

At the brain level, the neural networks that underlie evaluation would overlap with those that are involved in affect and emotion processing, and emotion regulation, as well as executive function and reflective processing in general. More specifically, when one perceives external stimuli (i.e., what one sees, hears, etc.), these stimuli are first processed subconsciously at the emotional level by certain structures of the limbic system - in particular the amygdala and the ventral striatum. Upon receiving a stimulus,

<sup>94</sup> *id.* 97.

<sup>95</sup> *id.* 98.

<sup>96</sup> *ibid.*

the limbic system attaches emotional *valences* - either positive or negative- to the stimulus received.<sup>97</sup>

In turn, emotional valences form initial responses that direct further processing in regions that are associated with sensory and attentional processing, and ultimately with certain regions of the PFC (notably, Ventrolateral PFC – hereafter VLPFC-, Dorsolateral PFC- hereafter DLPFC-, Rostrolateral PFC – hereafter RLPFC-, OFC), which mediates the reprocessing of the current evaluation. In turn, again, the higher-ordered brain regions send information back to the amygdala and other subcortical regions, thereby forming a progressive feedback loop. The feedback loop enables to transform automatic (subconscious) evaluations into reflective (conscious) evaluations that are better suited to current situations and goals, and hence influence and inform our choices.

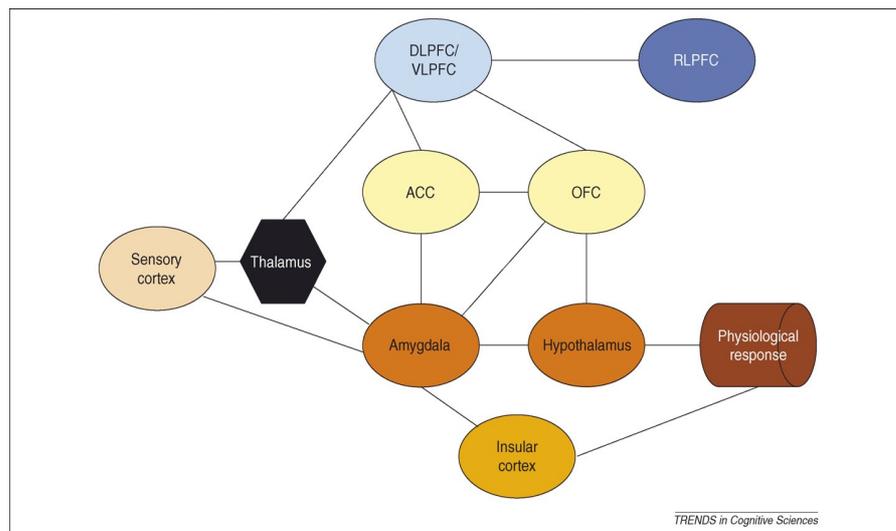


Fig. 2: Cunningham and Zelazo’s neural model of evaluation processes<sup>98</sup>

At a molecular level, the exchange of information between cortical and subcortical areas during decision-making is conveyed by neurotransmitters through neural synaptic

<sup>97</sup> It is noteworthy that during the unconscious emotional response implicit memories also come into play. Implicit memories are memories that are attached to conditioned emotions, and are stored in the amygdala. Implicit memories are not accessible at the conscious level but they nevertheless exert an influence on how we perceive and respond to external stimuli.

<sup>98</sup> Cunningham, Zelazo n. 93, 99.

connections.<sup>99</sup> The role of neurotransmitters is essential during the entire synaptic phase (presynapsis - synapsis - postsynapsis), in that they serve the function of transmitting excitatory and inhibitory impulses among neurons, as well as that of regulating and modulating the entire activity of the central nervous system, including higher intellectual activity and that concerned with affectivity and mood. As for decision-making processes, particularly involved neurotransmitters are dopamine (the “pleasure” neurotransmitter) and serotonin (the “mood” neurotransmitter).<sup>100</sup> For example, serotonin pathways are thought to play a significant role in mood control, as well as to be densely connected with structures implicated in moral judgment and behavior, namely the VmPFC, the Insula, and the amygdala.<sup>101</sup> As for dopamine, a number of studies demonstrated that the mesocorticolimbic dopaminergic system<sup>102</sup> plays a crucial role in motivational rewarding,<sup>103</sup> which is central to decision-making processes.

The interconnection between emotion, rewards, and motivation is crucial in goal-directed behavior and self-control. For instance, growing evidence from neuroscientific

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<sup>99</sup> Roughly, neurotransmitters are brain chemicals that communicate information throughout our brain and body. They allow communications between neurons.

<sup>100</sup> See Robert D. Rogers, ‘The role of dopamine and serotonin in decision-making: Evidence from pharmacological experiments in humans’ (2011) 36(1) *Neuropsychopharmacology* 114.

<sup>101</sup> See Heike Tost et al., ‘A fear for you: the role of serotonin in moral behavior’ (2010) 107 *Proceedings of the National Academy of Science USA* 17071; Molly J. Crockett, et al., ‘Serotonin selectively influences moral judgment and behavior through effects on harm aversion’ (2010) 107 *Proceedings of the National Academy of Science USA* 17433.

<sup>102</sup> The mesolimbic dopamine system is a dopaminergic pathway beginning in the midbrain- specifically, in the ventral tegmental area - and connects to the limbic system via the *nucleus accumbens*, as well as to the medial prefrontal cortex. In particular, ventral tegmental circuit is a key detector of a rewarding stimulus. Under normal conditions, the circuit controls an individual's responses to natural rewards, such as food, sex, and social interactions, and is therefore an important determinant of motivation and incentive drive. The *nucleus accumbens*, also called ventral striatum, is the principal target of VTA dopamine neurons. This region mediates the rewarding effects of natural rewards. See John D. Salamone & Mercè Correa, ‘The mysterious motivational functions of Mesolimbic Dopamine’ (2012) 76 *Neuron* 470; John D. Salamone et al., ‘Effort-related functions of nucleus accumbens dopamine and associated forebrain circuits’ (2007) 191 *Psychopharmacology* 461; Antonio Alcaro et al., ‘Behavioral functions of the mesolimbic dopaminergic system: An affective neuroethological perspective’ (2007) 56(2) *Brain Research Review* 283; Kent G. Barridge, ‘The debate over dopamine’s role in reward: the case for incentive salience’ (2007) 19 *Psychopharmacology* 391.

<sup>103</sup> Rewards are fundamental motivating forces that activate behavioral patterns to either achieve or avoid a certain goal. Motivation is created in the brain when dopamine is released and takes a specific direction toward the mesolimbic pathway and then spreads to other areas in the brain like the cerebral cortex. Information about the possible reward or penalty enters from the limbic structures - and thus is emotionally processed - into the the mesocorticolimbic pathway, notably the *nucleus accumbens*. When activated by dopamine, the *nucleus accumbens* triggers feedback in the brain which predicts that something—either good or bad—is about to happen. That prediction, in turn, triggers the motivation to respond, to act to minimize or avoid a predicted threat or punishment, or to achieve or maximize a predicted reward. This allows preparation of the appropriate motor and cognitive plans leading to the final decision.

studies suggests that poorer decision-making in drug-addicted individuals is associated with abnormal emotional responses - e.g. excessive drive or motivation- to reward and punishing events.<sup>104</sup> Imaging studies have shown that impaired decision-making in addiction is associated with abnormal functioning of a neural network critically involved in the processing of emotional information, including the OFC and the VmPFC,<sup>105</sup> the amygdala,<sup>106</sup> the striatum,<sup>107</sup> the anterior cingulate cortex,<sup>108</sup> the insula,<sup>109</sup> as well as dopaminergic circuits, like the Ventral Tegmental Area (hereafter VTA),<sup>110</sup> which modulate activities of neural processes involved in decision-making.

In *Descartes' Error*, Damasio conceptualizes all these claims into a “somatic marker hypothesis”.<sup>111</sup> Somatic markers can be defined as an *ensemble* of emotions, feelings and other biological regulations of the body, such as heart rate, that “have been connected, by learning, to predicted future outcomes of certain scenarios”<sup>112</sup> and thus give important guidance to the decision-making process. Somatic markers “force attention on the negative outcome to which a given action may lead”<sup>113</sup>, and help the

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<sup>104</sup> See Antonio Verdejo Garcia et al., ‘Emotion, decision-making and substance dependence: A somatic-marker model of addiction’ (2006) 4(1) *Current Neuropharmacology* 17.

<sup>105</sup> See, e.g., Goeffrey Schoenbaum et al., ‘Orbitofrontal cortex, decision-making, and drug-addiction’ (2006) 29(2) *Trends in Neuroscience* 116; Rita Goldstein & Nora Volkow, ‘Dysfunction of the prefrontal cortex in addiction: neuroimaging findings and clinical implications’ (2011) 12 *Nature Reviews Neuroscience* 652; Ketal Bolla et al., ‘Prefrontal cortical dysfunction in abstinent cocaine abusers’ (2004) 16(4) *The Journal of Neuropsychiatry and Clinical Neurosciences* 456.

<sup>106</sup> See, e.g., Clinton Kilts, ‘Imaging the role of amygdala in drug addiction’ (2001) 35(1) *Psychopharmacological Bulletin* 84.

<sup>107</sup> See, e.g., Mary Kay Lobo & Eric J. Nestler, ‘The striatal balancing act in drug addiction: distinct roles of direct and indirect pathway medium spiny neurons’ (2011) 5:41 *Frontiers in Neuroanatomy* 1.

<sup>108</sup> See, e.g., Diana Fishbein et al., ‘Risky decision making and the anterior cingulate cortex in abstinent drug abusers and nonusers’ (2005) 23(1) *Brain Research. Cognitive Brain Research* 119.

<sup>109</sup> See, e.g., Nasir Naqvi & Antoine Bechara, ‘The insula and drug addiction: an interoceptive view of pleasure, urges, and decision-making’ (2010) 214(5-6) *Brain Structure and Function* 435.

<sup>110</sup> See, e.g., Roy Wise, ‘Neurobiology of addiction’ (1996) 6(2) *Current Opinion in Neurobiology* 243; Bryon Adinoff, ‘Neurobiologic processes in drug reward and addiction’ (2004) 12(6) *Harvard Review of Psychiatry* 305.

<sup>111</sup> See Damasio n. 84, ch. 8. Damasio’s somatic marker hypothesis has greatly influenced the study of emotions and the brain. However, it is worth noting that its accuracy has been disavowed by more recent studies. See, e.g., Barney D. Dunn, ‘The somatic marker hypothesis: A critical evaluation’ (2006) 30 *Neuroscience and Biobehavioral Reviews* 239; Rebecca J. Wright & Tim Rakow, ‘Don’t sweat it: Re-examining the somatic marker hypothesis using variants of the balloon analogue risk task’ (2017) 4(1) *Decision* 52.

<sup>112</sup> Damasio, *id.* 174.

<sup>113</sup> *id.* 173.

individual to “choose from among fewer alternatives”<sup>114</sup> limiting then the array of possible responses *before* cognitive functions come into play.<sup>115</sup>

According to Damasio, the brain regions that are mostly involved in the processing of somatic or emotional markers are the VmPFC and the OFC.<sup>116</sup> The VmPFC can either serve as an evaluator of emotional inputs (i.e., it appraises the significance of emotional responses) coming from subcortical regions, but it can equally enhance emotional activity by fostering emotional reactions. On the other hand, the OFC serves as the brain’s somatic and emotion regulation system. It functions at the interface of higher and lower brain regions, integrating neocortical and limbic functions. The OFC “calms down” emotional inputs coming from the amygdala and helps us make choices in keeping with our goals and values.

Importantly, this mechanism comes particularly into play when it is a matter of making hard decisions, like in moral or social contexts. According to Damasio, somatic markers do not “intervene” when we are to satisfy basic needs, as this does not require the evaluation of the value of a certain action. Considering the crucial role that somatic markers play in personal and social decisions, it follows that

“people with an impaired marking system may be fully capable of reasoning correctly in easy reasoning, but in conflicting situations, an impaired marking system increases the probability of choosing a disadvantageous or dysfunctional response because the agents lacks the emotional information”.<sup>117</sup>

Drawing on Damasio’s somatic markers theory, Schwartz and Clore propose a *feeling-as-information theory*,<sup>118</sup> according to which feelings provide us with an integrative

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<sup>114</sup> *ibid.*

<sup>115</sup> *id.* 180-198. At the neurological level, the somatic marker hypothesis postulates, in particular, that the VmPFC mediates decision-making by providing relevant information about expected outcomes and reinforcement in the form of positive and negative valences quantifying the emotional significance of particular types of situations.

<sup>116</sup> See Antoine Bechara et al., ‘Emotion, decision-making, and the orbitofrontal cortex’ (2000) 10(3) *Cerebral Cortex* 295; Antoine Bechara et al., ‘Different contributions of the amygdala and the ventromedial prefrontal cortex to decision-making’ (1999) 19(13) *Journal of Neuroscience* 5473. For further discussion, see *infra* Chapter Three, Section II.C.

<sup>117</sup> Laura Raider, ‘Toward a new test for insanity defense: Incorporating the discoveries of neuroscience into moral and legal theories’ (1998) 46 *University of California Law Review* 289, 319.

<sup>118</sup> Norbert Schwartz & Gerald L. Clore, ‘How do I feel about it? The informative function of mood’ in K. Fiedler, J. Forgas (eds) *Affect, cognition, and social behavior* (C. J. Hogrefe 1988) 44; Gerald L. Clore &

evaluation of our ongoing experience. The theory essentially postulates that feelings and emotions assign value to objects of judgments, thoughts, and inclinations, thereby influencing - i.e., either validating or invalidating - cognitions. Importantly, emotions “influence judgments directly by serving as experiential and bodily information regarding how one feels about the object of judgment”.<sup>119</sup> Emotional information about the object of judgments and decisions bias cognitive thought. In a nutshell, the way we feel influences the way we think. Of course, by influencing cognitions, feelings and emotions significantly affect decision-making.

In conclusion, neuroscientific insights into decision-making processes suggest that emotion and cognition are equally important in decision-making processes, and that emotion plays a crucial role in either affective and cognitive functions, and thus in orienting our decisions. As Johnston and Olson suggested, “the so called cognitive brain functions, such as attention, perception, learning and memory, and decision-making can no longer be seen as separate and distinct from emotions; instead, they are inextricably infused with emotional assessments and feelings that accompany them”.<sup>120</sup> At a behavioral level, the bidirectional intercommunication between cognitive and emotional processes gives rise to a unified representation of mental states,<sup>121</sup> on the basis of which individuals make decisions and control impulses in a given context. All in all, contrary to folk understandings, studies on the brain show that our moral decisions result from the strict combination between cognitive and emotional brain circuits, and give particular emphasis to neural circuitries involved in the perception, the processing, and the regulation of emotions.

It goes without saying that both structural and functional disruptions in the emotion circuit might well cause an altered response of the cognitive one. This could provoke an altered representation of mental states, interfere with impulse control,<sup>122</sup> as well as with

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Janet E. Palmer, ‘Affective guidance of intelligent agents: How emotion controls cognition’ (2009) 10(1) *Cognitive System Research* 21; Norbert Schwartz, ‘Feeling as information’ in P. Van Lange, A. Kruglanski, & E. T. Higgins (eds), *Handbook of theories of social psychology* (SAGE Publications 2011) ch.14.

<sup>119</sup> Gerald L. Clore and Jeffrey T. Huntsinger, ‘How emotions inform judgment and regulate thought’ (2007) 11(9) *Trends in Cognitive Science* 393.

<sup>120</sup> Johnston & Olson n. 46, 306-307.

<sup>121</sup> Salzman & Fusi n. 90, 178.

<sup>122</sup> Nicole A. Roberts et al., ‘The impact of orbital prefrontal cortex damage on emotional activation to unanticipated and anticipated acoustic startle stimuli’ (2004) 4 *Cognitive, Affective and Behavioral Neuroscience* 307, 316 (“[D]eviations in emotional response” in certain brain-damaged patients “can be

the processing of information that is evocative of emotions. Importantly, these disruptions may well underlie either pathological or socially dysfunctional behavior, as well as feature antisocial conduct. The latter, which are central to the scope of this work, will be explored in the next sections.

### C. Feeling, Thinking, Judging Morally: The Neuroscience of Moral Decision-Making

The above illustrated interplay between brain areas involved in both emotional and cognitive processes is particularly intense during moral decision-making, where emotions play an even more significant role in informing cognitive responses, and ultimately behavioral outcomes. As has already been noted in the discussion on the psychological insights into the relationship between emotions and (im)moral behavior, recent developments in emotion theory have made it clear that emotion play a particularly critical role in moral judgments. These theories are supported by the neuroscientific findings about the brain circuits involved in decision-making processes in moral judgments.

While brain scans cannot exactly tell which emotions are at stake in moral judgments, they still provide a significant empirical support to the claim that emotions - both basic and moral/social- do play a massive role in moral decisions and behavior.<sup>123</sup> Neuroimaging research investigating the role of emotions in moral decision-making complements and improves moral psychological insights, for it provides them with more empirical, tangible bases. In other words, neuroscientific studies more empirically show how moral emotions initiate and are involved in moral decision-making processes. For example, as Jahnkowski and Takahashi observe, “neuroimaging can help clarify if attenuated empathy is due to poor perspective-taking, emotion recognition, or interoception, by revealing activation patterns of distinct brain regions involved in these

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expected to have an adverse impact on such cognitive processes as attention, learning, memory, and decision making, all of which are profoundly influenced by emotional reactions.”)

<sup>123</sup> See James Blair & Katherine Fowler, ‘Moral emotions and moral reasoning from the perspective of affective cognitive neuroscience: A selective review’ (2008) 2(3) *European Journal of Developmental Science* 303.

processes”.<sup>124</sup> In a nutshell, neuroscience offers compelling information to re-consider our ordinary view of emotions and moral decision-making.

While the brain correlates of basic emotions have been largely explored, the neural organization of “moral emotions” in the human brain is far more complex and less understood. However, in the last decade, a growing body of neuroimaging studies has investigated and detected the neural correlates of many moral emotions. By and large, these studies associate the generation and perception of moral emotions/feelings with activity in frontal, temporal, and limbic areas. Studies show that moral emotions involve the same brain regions as those involved in the processing of basic emotions - such as the amygdala, the insula, the subcortical nuclei. However, as some studies have emphasized,<sup>125</sup> while basic emotions are mostly processed by subcortical and the most ancient cortical areas - such as the insular cortex- moral emotions also involve brain regions associated with self-processing and self-control, namely regions of the medial PFC (notably, the VmPFC), the Dorsal Anterior Cingulate Cortex (hereafter dACC), and the DLPFC.

Other neuroimaging studies investigated and compared the respective neural correlates of positive<sup>126</sup> and negative moral emotions.<sup>127</sup> For instance, disgust has been correlated with activity in the thalamus, basal ganglia, visual cortex, and sometimes, the amygdala, anterior insula, and medial prefrontal cortex.<sup>128</sup>

Other studies have focused on other negative emotions, in particular guilt, shame, and embarrassment.<sup>129</sup> In a very recent review of neuroimaging studies spanning the years

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<sup>124</sup> See Jankowski & Takahashi n. 8, 319.

<sup>125</sup> See, e.g. Michael Gilead et al., ‘Neural correlates of processing “self-conscious” vs. “basic” emotions’ (2016) 81 *Neuropsychologia* 207.

<sup>126</sup> See, e.g., Hidehiko Takahashi, ‘Brain activations during judgments of positive self-conscious emotion and positive basic emotion: Pride and joy’ (2008) 18 *Cerebral Cortex* 898; Mary Helen Immordino-Yang, ‘Neural correlates of admiration and compassion’ (2009) 106(19) *Proceedings of the National Academy of Sciences USA* 8021.

<sup>127</sup> See, e.g., Lilian Roth et al., ‘Brain activation associated with pride and shame’ (2014) 69(2) *Neuropsychobiology* 95.

<sup>128</sup> See, e.g., Jorge Moll et al., ‘The moral affiliations of disgust: An fMRI study’ (2005) 18(1) *Cognitive Behavioral Neurology* 68; Bruno Wicker et al., ‘Both of us disgusted in my Insula: The common neural basis of seeing and feeling disgust’ (2003) 40 *Neuron* 655.

<sup>129</sup> Gayannee Kedia et al. ‘An agent harms a victim: a functional magnetic resonance imaging study on specific moral emotions’ (2008) 20(10) *Journal Cognitive Neuroscience* 1788; Petra Michl et al., ‘Neurobiological underpinnings of shame and guilt: A pilot fMRI study’ (2014) 9(2) *Social Cognitive and Affective Neuroscience* 150; Ullrich Wagner, ‘Guilt-specific processing in the prefrontal cortex’ (2011) 21(11) *Cerebral Cortex* 2461; Neil McLatchie et al., ‘Imagined guilt’ vs “recollected guilt”: implications for fMRI’ (2016) 11(5) *Social Cognitive and Affective Neuroscience* 703.

2000-2014, Bastin et al.<sup>130</sup> summarize current knowledge of the neurobiological underpinnings of the feeling of said negative emotions. They report that most studies show that these three negative moral emotions involve overlapping brain regions (e.g. both shame and guilt are associated with activity in the anterior insula), while each of them activates other distinct neural patterns. For instance, shame appears to be particularly associated with activity in the DLPFC, posterior cingulate and sensorimotor cortices. Embarrassment, instead, appears to be uniquely associated with the ventrolateral prefrontal cortex and the amygdala. Finally, guilt has been more associated with activity in the ventral anterior cingulate cortex (vACC), the VmPFC, the amygdala, and basal ganglia.

Importantly, most studies find correlations of self-conscious emotions - both positive and negative- with structures that have been associated with the Theory of Mind (“ToM”, i.e. the cognitive capacity to infer the feelings and mental states of others). This finding further confirms that self-conscious emotions are significantly involved in social cognition, and thus in interpersonal interactions.

The investigation on single moral emotions has expanded to emotion-related capacities, such as empathy<sup>131</sup> - which, as is also maintained in moral psychology,<sup>132</sup> greatly influences moral decision-making and prosocial behavior. By and large, studies on empathy show that our capacity for empathy largely relies upon emotion brain systems. The brain processes that are involved in empathy activate a network of regions that are associated with all stages of emotional processing - at both affective and cognitive levels.<sup>133</sup> Decety,<sup>134</sup> for example, divides the experience of empathy into three neurocognitive components: affective arousal, emotional understanding (or perspective-

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<sup>130</sup> Coralie Bastin et al., ‘Feelings of shame, embarrassment, and guilt, and their neural correlates: A systematic review’ (2016) 71 *Neuroscience and Biobehavioral Reviews* 455.

<sup>131</sup> For an overall discussion on the neuroscientific advances on empathy, see Jamil Zaki & Kevin Ochsner, ‘The neuroscience of empathy: progress, pitfalls, and promise’ (2012) 15(5) *Nature Neuroscience* 675. For an investigation on the neural correlates of empathy for positive and negative emotions, see Sylvia Morelli et al., ‘The neural basis of empathy for components of empathy: Predicting daily prosocial behavior’ (2014) 9 *Social Cognitive and Affective Neuroscience* 39.

<sup>132</sup> See Section II.

<sup>133</sup> Neuroscientists widely agree that empathy is a process involving both emotional and cognitive components. See, for example, Raeanne Moore, ‘Distinct neural correlates of emotional and cognitive empathy in older adults’ (2015) 232(1) *Psychiatry Research* 42.

<sup>134</sup> See Jean Decety, ‘The neurodevelopment of empathy in humans’ (2010) 32 *Developmental Neuroscience* 257; Jean Decety & Claus Lamm, ‘Human empathy through the lens of social neuroscience’ (2006) 6 *The Scientific World Journal* 1146.

taking), and emotion regulation.<sup>135</sup> These components involve distinct, yet interacting, neural circuits encompassing both subcortical and cortical regions.<sup>136</sup>

Drawing upon studies on the neural correlates of moral emotions, neuroscientists have begun tracing the neural bases of decision-making processes in moral judgments. In 2001, Moll and his colleagues conducted an fMRI study<sup>137</sup> in which subjects were asked to judge silently as right or wrong certain moral (e.g. “Breaking the law is necessary”) and factual (e.g. “The water is wet”) sentences. The group of researchers found that judgments of moral sentences activated different brain regions including the frontopolar cortex (FPC), medial frontal gyrus, right anterior temporal cortex, lenticular nucleus, and cerebellum - compared to those activated by judgments on factual judgments. Importantly, these brain areas are associated with emotional responses.

Still in 2001, psychologist Joshua Greene and his colleagues conducted an fMRI study<sup>138</sup> to detect the different neural patterns underlying respectively moral and non-moral dilemmas. By asking participants to solve a set of both moral and non-moral issues,<sup>139</sup> this group of neuroscientists found that contemplation of moral dilemmas activated brain areas prototypically associated with emotional processing - e.g. the

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<sup>135</sup> This process begins at the core emotional level with affective responsiveness to and prioritization of emotionally-salient stimuli. It continues at a more cognitive level with the representation of the feelings of another person. This cognitive aspect of empathy, also called perspective-taking, is thought to be crucial in the Theory of Mind (ToM). It culminates with emotion regulation, i.e. the ability to govern one’s own emotional responses to external stimuli in a socially acceptable manner. Put this way, emotion regulation relies upon affective arousal and perspective-taking. By making emotion regulation the final step of empathetic experience, Decety implies that empathy is also crucial for inhibiting impulsive, or aggressive behavior toward others. *A contrario*, empathy deficits trigger emotion dysregulation, and thus may underlie impulsive, and violent behavior. For further discussion, see Marc Schipper & Franz Petermann, ‘Relating empathy and emotion regulation: Do deficits in empathy trigger emotion dysregulation?’ (2013) 8(1) *Social Neuroscience* 101.

<sup>136</sup> See Decety, *The neurodevelopment*, n. 134, 260 (describing affective arousal as a “bottom-up process in which the amygdala, hypothalamus and orbitofrontal cortex (OFC) underlie rapid and prioritized processing of the emotion signal; [...]emotion understanding, which relies on self- and other-awareness and involves the medial prefrontal cortex (mPFC), ventromedial (vm)PFC and temporoparietal junction (TPJ). [These areas are considered to be particularly associated with ToM] and emotion regulation, which depends on executive functions instantiated in the intrinsic cortical connections of the OFC, mPFC and dorsolateral (dl)PFC, as well as on connections with subcortical limbic structures implicated in processing emotional information.”). Cf. Lian T. Rameson et al., ‘The Neural correlates of empathy: Experience, automaticity, and prosocial behavior’ (2012) 24(1) *Journal of Cognitive Neuroscience* 235 (highlighting the crucial role of the MPFC in empathy and social cognition).

<sup>137</sup> Jorge Moll et al., ‘Frontopolar and anterior temporal cortex activation in a moral judgment task: preliminary functional MRI results in normal subjects’ (2001) 59 *Arquivos de Neuropsiquiatria* 657.

<sup>138</sup> Joshua Greene et al., ‘An fMRI investigation of emotional engagement in moral judgment’ (2001) 293 *Science* 2105.

<sup>139</sup> Moral and non-moral dilemmas were respectively designed on the basis of the “footbridge” and “trolley” dilemmas, two iconic philosophical thought experiments. See Greene, *id.*

mPFC - to a significantly greater extent than contemplation of non-moral dilemmas - activating more prototypically cognitive brain regions, like the DLPFC.

In a follow-up study,<sup>140</sup> Greene also measured reaction times in “easy” moral and “difficult” moral judgments.<sup>141</sup> While easy moral dilemmas were answered quickly, had fast reaction times, and implied uniform responses, difficult moral dilemmas had slower reaction times, and implied heterogeneous responses. Importantly, this study confirmed that activation of brain areas associated with emotion processing was greater in *difficult* moral dilemmas - i.e., when the moral decision involves negative consequence for another person - compared to easy moral dilemmas - i.e. when it involves no negative consequence for another person-, where cognitive brain areas are more activated.

These findings suggest that emotions interfere more with moral decisions, compared to either non-moral or easy moral decisions, especially when one is required to consider the consequences of one’s actions for another’s well-being. According to Greene and his colleagues, these results show that “utilitarian” (or consequentialist) judgments are more associated with controlled cognitive moral processing, while deontological judgments “aimed at respecting rights, duties, and obligations”<sup>142</sup> are more associated with emotional processing. If Greene’s hypothesis is correct, this means that the intensity of emotional responses to moral issues modulates utilitarian judgments. In other words, intense emotional responses should decrease cognitive control, and thus utilitarian judgments; on the contrary, decreased emotional responses increase cognitive control, and thus utilitarian judgments.

In another study conducted in 2002, Moll and his colleagues<sup>143</sup> found functional dissociation within the OFC and associated structures in the processing of different kinds of social/emotional information relevant to moral judgment. Here, subjects were presented with emotionally charged pictures with moral content (e.g., pictures of physical assaults) and without moral content (e.g., pictures of dangerous animals). Researchers found that viewing emotionally charged pictures with moral content

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<sup>140</sup> See Joshua Greene et al., ‘The neural bases of cognitive conflict and control in moral judgment’ (2004) 44 *Neuron* 389.

<sup>141</sup> An example of a difficult moral dilemma is the “crying baby dilemma”. Here subjects were asked to assess whether or not to kill a crying baby to save themselves from being discovered by enemy soldiers.

<sup>142</sup> Joshua Greene, ‘The cognitive neuroscience of the moral judgment’ in M. Gazzaniga (ed), *The Cognitive Neurosciences* (The MIT Press 2009) ch. 68, 978.

<sup>143</sup> Jorge Moll et al., ‘Functional networks in emotional moral and nonmoral social judgments’ (2002) 16 *NeuroImage* 696.

uniquely activated medial OFC. This result was compatible with evidence showing that lesions in this specific brain region are often associated with social disinhibition, lack of empathy, and increased levels of aggressions.

Borg et al.,<sup>144</sup> instead, investigated the differing neural correlates of moral deliberations (i.e. weighing of moral considerations) and moral verdicts (i.e. conclusion that something is wrong) to map the entire process leading up to moral judgments. Their study demonstrated that while moral deliberations activate cortical areas involved in morality e.g., the VmPFC, the verdict that something is morally wrong is associated with activity in anterior insula and subcortical regions.

The growing body of neuroimaging studies on moral emotions, moral judgments, and emotions has ultimately led neuroscientists to indicate the existence of a “neuromoral network”, namely a network of brain areas that appear constantly and significantly involved in moral decision-making.<sup>145</sup> According to the prevailing view, the best-replicated neural correlates of morality broadly recruit a *fronto-temporo-subcortical* network, and therefore comprise both cognitive and emotional components. The cognitive components of the moral circuit are mainly localized in the DLPFC,<sup>146</sup> and in the ACC,<sup>147</sup> the emotional components of the moral circuitry, instead, involve the amygdala,<sup>148</sup> the VmPFC<sup>149</sup> and the OFC.<sup>150</sup> These areas support aspects of moral

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<sup>144</sup> Jana Borg et al., ‘Neural bases of moral verdict and moral deliberation’, *Social Neuroscience* (2011) 6(4) 398.

<sup>145</sup> See Mario Mendez, ‘The neurobiology of moral behavior: Review and neuropsychiatric implications’ (2009) 14(11) *CNS Spectrums* 608; Oriol FeldmanHall et al., ‘Deconstructing the brain’s moral network: dissociable functionality between the temporoparietal junction and ventro-medial prefrontal cortex’ (2012) 9 *Social Cognitive Affective Neuroscience* 297; Leo Pascual et al., ‘How does morality work in the brain?’ (2013) 7:65 *Frontiers in Integrative Neuroscience* 1; Kristine Prehn & Hauke Heekeren, ‘Moral judgment and the brain: A functional approach to the question of emotion and cognition in moral judgment integrating psychology, neuroscience and evolutionary biology’ in J. Braeckman, J. Verplaetse & J. De Schrijver (eds), *The Moral Brain. Essays on the evolutionary and neuroscientific aspects of morality* (Springer 2009) 129; Joshua Greene & Johnatan Haidt, ‘How (and where) does moral judgment work?’ (2012) 6(12) *Trends in Cognitive Sciences* 517.

<sup>146</sup> See Kristine Prehn et al., ‘Individual differences in moral judgment competence influence neural correlates of socio-normative judgments’ (2008) 3(1) *Social Cognitive and Affective Neuroscience* 33.

<sup>147</sup> See Greene n. 140.

<sup>148</sup> See James Blair, ‘The amygdala and the ventromedial prefrontal cortex in morality and psychopathy’ (2007) 11(9) *Trends in Cognitive Neuroscience* 387.

<sup>149</sup> See Liane Young & Michael Koenigs, ‘Investigating emotion in moral cognition: a review of evidence from functional neuroimaging and neuropsychology’ (2007) 84 *British Medical Bulletin* 69; Chuan-Peng Hu & Xiaoming Jiang, ‘An emotion regulation role of ventromedial prefrontal cortex in moral judgment’ (2014) 8 *Frontiers in Human Neuroscience* 873.

<sup>150</sup> Jorge Moll et al., ‘The neural correlates of moral sensitivity: A functional magnetic resonance imaging investigation of basic and moral emotions’ (2002) 22(7) *Journal of Neuroscience* 2730.

decision-making particularly linked to affect, including emotional perception, sensitivity to reward and punishment, and motivation, especially in the so-called “care-based morality”<sup>151</sup>.

As an increasing number of studies shows, the integrative center for innate morality resides in particular in the VmPFC, with its multiple connections with the limbic lobe, thalamus and brainstem. All these areas are associated with social emotional processing.<sup>152</sup> In short, perceived stimuli are first processed subconsciously at the emotional level by certain structures of the limbic system - in particular the amygdala and the ventral striatum. Upon receiving a stimulus, the limbic system attaches to its emotional valences - either positive or negative (i.e. good or bad, right or wrong). More specifically, the amygdala provides either positively or negatively valenced information, which is represented as a valence outcome within the VmPFC and the OFC.

The VmPFC “mediates automatic moral and prosocial reactions, such as discomfort at the prospect of being a direct agent of a personal moral violation or of harm to someone else”,<sup>153</sup> thereby it is very active in moral emotions, like guilt, or compassion. Also, the VmPFC attributes moral and emotional values to social stimuli, anticipates their future outcome, and modulates the mechanisms of empathy<sup>154</sup> and perception of others' intentions. While the VmPFC serves the role of *evaluating* the significance of emotional stimuli, the OFC serves the function of *filtering* emotional stimuli, dampening arousal to irrelevant inputs, and maintaining neural focus on task-relevant associations.<sup>155</sup> More specifically, the OFC mediates aversive responses related to the social context, modifies responses based on feedback, and inhibits automatic-impulsive behavior triggered by the amygdala.

All things considered, neuroscientific studies confirm the large artificiality of the distinction between emotional and cognitive processes, for these studies empirically demonstrate that both faculties are equally at stake when we are to make moral decisions. Notably, these studies show that moral judgments rely on the proper

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<sup>151</sup> See James Blair n. 148, 387 (claiming that care-based morality can be considered as “those forms of moral reasoning that concern actions that harm others”).

<sup>152</sup> See Donatella Marazziti et al., ‘The neurobiology of moral sense: facts or hypothesis?’ (2013) 12 *Annals of General Psychiatry* 6, 6.

<sup>153</sup> Mendez n. 145, 610.

<sup>154</sup> See Blair & Fowler n. 123.

<sup>155</sup> See Joshua Knabb et al., ‘Neuroscience, moral reasoning, and the law’ (2009) 27 *Behavioral Sciences and the Law* 219.

functioning of brain networks dedicated to processing stimuli endowed with social and emotional significance. Consequently, imbalances in the neural system underlying moral decision-making - the neuromoral network, indeed - may predispose to antisocial tendencies, or rule-breaking behavior, which is a key common denominator to many criminal conducts.<sup>156</sup>

#### IV. EMOTION AND COGNITION IN CRIMINAL DECISION-MAKING: THE NEUROBIOLOGY OF ANTISOCIAL BEHAVIOR

The insights into emotions and moral decision-making processes offered by moral psychology and neuroscience are further corroborated by recent discoveries about the neural correlates of antisocial, violent, and criminal behavior. The neural underpinnings of antisocial behavior form the subject of investigation of an emerging branch in the neurosciences, i.e. *neurocriminology*.

By definition, neurocriminology “seeks to apply techniques and principles from neuroscience to improve our understanding of antisocial conducts”.<sup>157</sup> This relatively new field of study focuses on the neurobiological traits of criminal behavior, in connection with genetic and environmental factors. More specifically, neurocriminologists explore how interactions of neurobiology and environment might increase the likelihood of criminal offending by adopting a biosocial approach to criminal behavior.

Focusing on the neurological facet, a good deal of neuroimaging studies has been undertaken to examine whether structure and functioning of the brain are correlated with different types of antisocial behaviors. While there is at present no evidence to prove that criminal behavior results from brain vulnerabilities, there are good reasons to

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<sup>156</sup> Of course, there is at present no evidence to prove that all types of criminal behavior are the result of brain vulnerabilities. However, there are good reasons to believe that combinations of social and neurobiological factors can predispose an individual to antisocial tendencies. Interestingly, a growing body of neurocriminological research has been showing that some kinds of criminal behavior do share a common neurobiological basis. Notably, the brain areas that appear to be mostly compromised in antisocial behavior overlap with those involved in the emotional evaluation of the moral quality of decisions, as well as in self-regulation. It has been hypothesized that immoral or antisocial decisions resulting in inappropriate actions in social contexts can be correlated with emotional imbalances at both structural and functional levels in the brain.

<sup>157</sup> Andrea L. Glenn & Adrian Raine, ‘Neurocriminology: Implications for the punishment, prediction and prevention of criminal behaviour’ (2014) 15 *Nature Reviews Neuroscience* 54.

believe that a variety of neurobiological features (usually coupled with environmental factors) can indeed predispose an individual to antisocial tendencies. For example, Adriane Raine<sup>158</sup> suggests that specific either structural or functional brain disruptions may underlie specific cognitive and emotional impairments that are considered to be risk factors for antisocial behavior, for they may well bias social behavior in an antisocial direction. In other words, brain abnormalities occurring in specific areas may *indirectly* give rise to antisocial conduct. For instance, amygdala impairments may well be correlated with poor fear conditioning. Poor fear conditioning may result in a failure to fully develop a conscience - a set of emotional responses that motivate individuals to desist from previously punished behavior. In its turn, poor conscience development might well predispose to antisocial behavior.<sup>159</sup>

Interestingly, a growing body of neurocriminological research shows that some kinds of criminal behavior do share a common neurobiological basis. More specifically, the common theme cutting across virtually the neurocriminological approach lies either in abnormalities occurring singularly or in the interaction between cortical and subcortical areas involved in emotional processing. In particular, both structural and functional alterations in specific regions of the PFC - in particular, the OFC and VmPFC- and the limbic structures - notably, the amygdala - appear to have significant and consistent links to antisocial phenotypes, whereas combined also with genetic and environmental factors.<sup>160</sup>

Most of the neurocriminological research has been focusing on psychopathy and, more generally, socio-affective disorders, like the Antisocial Personality Disorder (ASPD).<sup>161</sup>

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<sup>158</sup> Adriane Raine, 'From genes, to brain, to antisocial behavior' (2008) 17 *Current Directions in Psychological Science* 5323.

<sup>159</sup> *id.*, TABLE I

<sup>160</sup> As is well known, the brain is not static, but constantly subject to change over time, experiences, traumas, and the like. Its mechanisms are proximal mechanisms and do not imply immutability, in the sense that they are likely shaped by an interaction of environmental as well as biological processes over the course of development. Neuroscientists call this phenomenon 'neuroplasticity'. See Alvaro Pascual-Leone et al., 'The plastic human brain cortex' (2005) 28 *Annual Review of Neuroscience* 377.

<sup>161</sup> The neuroscientific literature on psychopathy, and ASPD is extremely wide. See, *inter alia*, Kent Kiehl, Walter Sinnott-Armstrong (eds), *Handbook on Psychopathy and Law* (Oxford University Press 2013); Kent A. Kiehl et al., 'Limbic abnormalities in affective processing by criminal psychopaths as revealed by functional magnetic resonance imaging' (2001) 50 *Biological Psychiatry* 677; James Blair, 'Neurological basis of psychopathy' (2003) 182 *The British Journal of Psychiatry* 5; James Blair, 'Responding to the emotions of others: Dissociating forms of empathy through the study of typical and psychiatric population' (2005) 14 *Consciousness and Cognition* 698; Yaling Yang et al., 'Morphological alterations in the prefrontal cortex and the amygdala in unsuccessful psychopaths' (2010) 119(3) *Journal*

For example, several groups of researchers have found that, compared to normal controls, subjects with stable antisocial behavior exhibit smaller temporal lobes - in particular the hippocampus and the amygdala - as well as grey matter reductions in the dorsolateral, medial frontal, and orbitofrontal cortices.<sup>162</sup> Other studies instead focused on white matter structures, and found that psychopathic antisocial subjects had a longer, thinner corpus callosum with overall increased volume than the control group.<sup>163</sup>

From a functional standpoint, converging evidence from a number of neuroimaging studies supports the hypothesis that psychopathy, and, generally, socio-affective disorders, are featured by abnormalities in the neural patterns connecting the limbic system, temporal lobe, anterior and posterior cingulate cortex, insulate cortex, the VmPFC, and the OFC - all areas that are crucially involved in emotional arousal, feeling of emotions, and emotion regulation. Impairments in these brain areas explain why patients affected by these types of personality disorders usually show callousness, as well as deficits in using emotional information to regulate their behavior.<sup>164</sup>

Apart from psychopaths and ASPD patients, neurocriminological research is also gradually providing interesting data about sex offenders and, in particular, paedophilic sex offenders. Studies on the brain have been demonstrating that men who have committed sexual offences against children exhibit structural or functional abnormalities in both frontal and temporal lobes-<sup>165</sup> involved in both affective and

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of *Abnormal Psychology* 546; Sarah Gregory et al., 'Punishment and psychopathy: a case-control functional fMRI investigation of reinforcement learning in violent antisocial personality disordered men' (2015) 2(2) *The Lancet Psychiatry* 153.

<sup>162</sup> See Stéphan De Brito, 'Structural neuroimaging and the antisocial brain' (2009) 36 *Criminal Justice and Behavior* 1173; Yuta Aoki et al., 'Neural bases of antisocial behavior: A Voxel-Based Morphometry meta-analysis' (2014) 9(8) *Social Cognitive and Affective Neuroscience* 1223.

<sup>163</sup> Adraïne Raine et al., 'Corpus callosum abnormalities in psychopathic antisocial individuals' (2003) 60(11) *Archives of General Psychiatry* 1134.

<sup>164</sup> See also resting-state fMRI studies showing functional alterations in brain networks involved in moral tasks in socio-affective disordered subjects; Yan Tang et al., 'Identify individuals with Antisocial Personality Disorders using resting-state fMRI' (2013) 8(4) *PLoS One*; Carissa Philippi, 'Altered resting-state functional connectivity in cortical networks in psychopathy' (2015) 35(15) *Journal of Neuroscience* 6068; Jesus Pujol et al., 'Breakdown in the brain network subserving moral judgment in criminal psychopathy' (2012) 7 *Social Cognitive and Affective Neuroscience* 917. Resting-state fMRI is a method "measuring functional connectivity between brain regions as the level of co-activation of spontaneous functional MRI time-series, recorded during rest [i.e. when a subject is not performing any task]": Martijn Van den Heuvel & Hilleke Hulshoff Pol, 'Exploring the brain network: A review on resting-state fMRI functional connectivity' (2010) 20(8) *European Neuropsychopharmacology* 20(8) 519; see also Bharat Biswal, 'Resting-state fMRI: A personal history' (2012) 62(2) *NeuroImage* 938.

<sup>165</sup> See Mario Mendez, 'Paedophilia and temporal lobes disturbances' (2000) 12(1) *Journal of Neuropsychiatry and Clinical Neuroscience* 71; Giulia Capra et al., 'Current scientific research on

cognitive functions - which may entail abnormal sexual arousal patterns.<sup>166</sup> Importantly, reduced grey matter (volume) in the right amygdala and other subcortical regions like the hypothalamus or the septal region - which are critical to sexual development- has been replicated repeatedly.<sup>167</sup>

More recently, neurocriminological research has also started investigating the neuropsychology of white-collar crimes. Surprisingly, the little evidence available shows that white-collar criminals - contrarily to violent or aggressive criminals- have better executive functioning, enhanced information processing, and structural brain superiorities compared to offender controls. Based on these preliminary results, some neuroscientists speculate that white-collar criminals do not have any significant *minus* in their emotional capacities, but instead exhibit brain superiorities that give them an advantage in perpetrating criminal offenses in occupational settings.<sup>168</sup>

Apart from the exception” of white-collar crimes- for the time being, at least - it is interesting to note that violence and antisocial behavior are precisely correlated by disruptions in the emotion circuits involved in moral decision-making processes. In a study conducted in 2009, Raine and Yang investigated the neural correlates of moral reasoning and antisocial behavior. Their study is very significant, for it shows that while some areas are only implicated in moral reasoning, and others are only disrupted in antisocial behavior, other brain areas overlap. More specifically, the brain areas that are commonly associated with antisocial behavior overlap with those that are involved in emotional processes featuring moral decision-making. It follows that emotional imbalance can be responsible for immoral or antisocial decisions resulting in inappropriate actions in social contexts.

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paedophilia: A review’ (2014) 20 *Journal of Psychopathology* 17; Christian Kargel et al., ‘Diminished functional connectivity on the road to child sexual abuse in paedophilia’ (2015) 12(3) *The Journal of Sexual Medicine* 783.

<sup>166</sup> Timm B. Poepl, ‘Connectivity and Functional Profiling of Abnormal Brain Structures in Paedophilia’ (2015) 36(6) *Human Brain Mapping* 2374.

<sup>167</sup> Koljia Schitz et al., ‘Brain pathology in pedophilic offenders. Evidence of volume reduction in the right amygdala and related diencephalic structures’ (2007) 64 *Archives of General Psychiatry* 737; Alexander Sartorius et al., ‘Abnormal amygdala activation profile in pedophilia’ (2008) 258 *European Archives of Psychiatry and Clinical Neuroscience* 271; Matteo Pardini et al., ‘Lower amygdala volume in men is associated with childhood aggression, early psychopathic traits, and future violence’ (2014) 75(1) *Biological Psychiatry* 73; Sebastian Mohnke et al., ‘Brain alterations in paedophilia: A critical review’ (2014) 122 *Progress in Neurobiology* 1.

<sup>168</sup> Adriane Raine et al., ‘Increased executive functioning, attention, and cortical thickness, in white-collar criminals’ (2012) 33(12) *Human Brain Mapping* 2932.

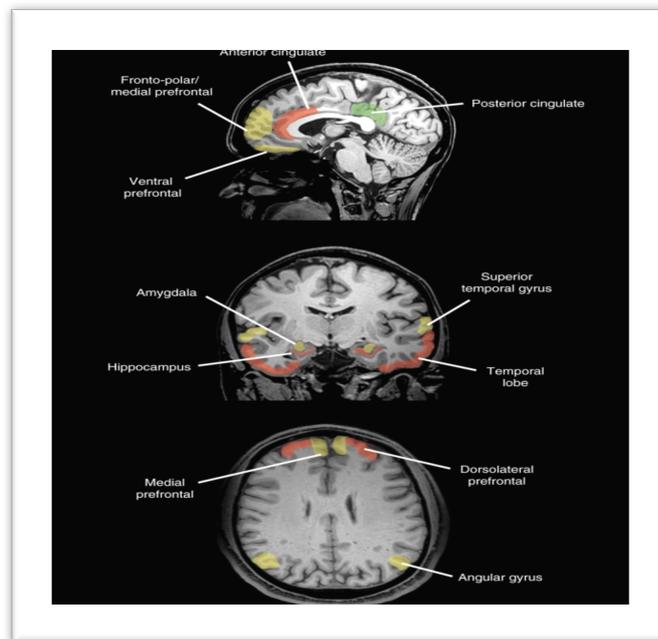


Fig.3: Adriane Raine and Yaling Yang’s neural model of morality and *a-* or *im-* morality. Red areas are those impaired only in antisocial population. Green areas get activated only in moral judgment tasks. Yellow areas are instead common to *both* antisocial behavior and moral/emotional judgment. The partial overlap of structures implicated in antisocial traits and moral judgment tasks supports the hypothesis that *some* of the brain impairments found in antisocial individuals disrupt moral emotion/decision-making, which in turn predisposes individuals to rule-breaking, antisocial behavior.<sup>169</sup>

Brain-based approaches to antisocial behavior are gradually being incorporated in modern criminological theories, which have started investigating the nature of crime by also taking into consideration the neurobiosocial perspective.<sup>170</sup> As is well-known, traditional criminological theories tended to explain crimes by adopting a cognition-based “rational choice perspective”,<sup>171</sup> according to which criminals are assumed to be rational actors who “always attempt to behave so as to maximize the expected benefits

<sup>169</sup> Adrian Raine & Yaling Yang, ‘Neural foundations to moral reasoning and antisocial behavior’ (2006) 1(3) *Social Cognitive and Affective Neuroscience* 203. A similar study has been conducted by Elizabeth Shirlcliff et al., ‘Neurobiology of empathy and callousness: Implications for the development of antisocial behavior’ (2009) 27(2) *Behavioral Sciences and the Law* 137.

<sup>170</sup> See Kevin Beaver (ed), *The Ashgate Research Companion to biosocial theories of crime* (Routledge 2011) [hereafter *Biosocial theories of crime*].

<sup>171</sup> See Michael L. Benson & Tara Livelsberger, ‘Emotion, choice, crime’ in F. T. Cullen & P. Wilcox (eds), *The Oxford Handbook of Criminological Theories* (Oxford University Press 2013) ch. 10.

in relation to the costs of their actions”.<sup>172</sup> In face of the neuroscientific discoveries about decision-making processes and moral reasoning, criminologists have started rethinking their orthodox rationalist approach to crime, and reconceptualized the role of affect and emotions in criminal choices and decisions. Crime is now understood as an emotionally influenced - rather than an intellect-governed- social behavior.<sup>173</sup> Under the criminological perspective, criminal behavior can be driven and followed by either positive (e.g., pride, happiness)<sup>174</sup> and/or negative (e.g., guilt, shame, anger)<sup>175</sup> emotions. Importantly, as has been maintained, the way criminal individuals are aware of and consider these emotions in their decision-making has a significant impact on their rational choice whether or not to engage in criminal conduct, and therefore influence the likelihood of crime.<sup>176</sup>

One prominent example of this criminological approach highlighting the role of emotions in criminal decision-making is offered by the *Situational Action Theory of Crime (SAT)* proposed by criminologists Per-Olof Wikström and Kyle Treiber.<sup>177</sup> Wikström and Treiber describe crimes as “essentially moral actions, i.e. actions that follow or break moral rules, and hence are guided by what is right and what is wrong to do”.<sup>178</sup> As such, crimes are considered to be far more complex types of actions, in that they involve the strict combination of a certain environment, or setting, and the individual’s moral perceptions, i.e. “the identification of action alternatives and their moral qualities in response to particular motivations in a particular setting”.<sup>179</sup>

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<sup>172</sup> *id.* 494.

<sup>173</sup> *ibid.*

<sup>174</sup> See Jack Katz., *Seductions of crime: moral and sensual attractions in doing evil* (Basic Books Inc. 1998); Marie Rosenkratz Lindegaard et al., ‘Posterior gains and immediate pains. Offender emotions before, during, and after robberies’ in Jean-Louis Ven Gelder et al. (eds), *Affect and Cognition in Criminal decision-making* (Routledge 2014) ch. 4.

<sup>175</sup> See, *inter alia*, Robert Agnew, ‘Foundation for a general strain theory of delinquency’ (1992) 30(1) *Criminology* 47; Robert Agnew, *Why do criminals offend? A general theory of crime and delinquency* (Oxford University Press 2005).

<sup>176</sup> See Benson & Livelsberger n. 171, 496.

<sup>177</sup> See Per-Olof H. Wikström, ‘Individuals, settings and acts of crime. Situational mechanisms and the explanation of crime’ in Per-Olof H. Wikström & Robert Sampson (eds), *The Explanation of Crime; Context, Mechanisms, and Development* (Cambridge University Press 2006), ch. 3; Per-Olof H. Wikström, ‘Situational Action Theory’ in F.T. Cullen & P. Wilcox (eds), *Encyclopedia of Criminological Theory* (SAGE Publications 2010); Per-Olof H. Wikström & Kyle Treiber, Violence as situational action (2009) 3(1) *International Journal of Conflict and Violence* 75.

<sup>178</sup> See Per-Olof H. Wikström & Kyle Treiber, ‘The role of self-control in crime causation’ (2007) 4(2) *European Journal of Criminology* 237, 246.

<sup>179</sup> *ibid.*

An individual's moral perceptions of a particular setting depend on both "the correspondence between the individual's morality (moral beliefs and moral habits) and the moral rules of the setting, and the strength of the individual's moral beliefs and moral habits".<sup>180</sup> In particular, moral beliefs can be characterized as "the intensity of the moral emotions, such as the feeling of shame or guilt - or happiness or satisfaction at its extreme - in violating a moral rule".<sup>181</sup> Moral perceptions, and thus the moral feelings about engaging or not in a crime, precede moral choices (i.e. intentions to abide by or breach a moral rule), and hence determine one's disposition to or not to commit a certain crime. In a nutshell, crime is the product of a certain propensity to crimes (which determines the agent's perception of the external stimulus) and the exposition to certain criminogenic factors. In this framework, moral rules serve as a filter, which mediates the agent's decision. However, the driving force of the moral rule is to be interfaced with the agent's propensity to crime. In other words, "whether or not a person takes a moral rule into account in his/her decision to act depends on what rules he/she recognizes and the significance he/she attributes to them".<sup>182</sup> Overall, crimes cannot be explained by only looking at the reasons why an agent acted in an antisocial way,<sup>183</sup> but also at endogenous (individual traits) and exogenous (environment) factors that lead the agent to perceive the crime as a valid behavioral alternative in a certain setting, and the binding force of moral rules is very weak.

Interestingly, under a neuroscientific perspective, the brain mechanisms that are considered to play a role in the interaction of perception - propensity - choice to commit a crime and force of a moral rule are largely consistent with those involved in moral decision-making - especially the limbic system, the VmPFC and the DLPFC-<sup>184</sup> which are generalized in Damasio's "somatic markers hypothesis".<sup>185</sup> Associations between the VmPFC and antisocial behavior have been further drawn in other studies. Koenigs

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<sup>180</sup> *ibid.*

<sup>181</sup> *ibid.*

<sup>182</sup> Kyle Treiber, 'The Neuroscientific Bases of Situational Action Theory', in *Biosocial Theories of Crime* (n. 170), 244.

<sup>183</sup> *id.* 228 ("People may commit the same action for many different reasons, and people may have the same reasons for committing the same action, yet some may and some may not. Reason are not causes. [...] Rather than causes, reasons represent content - factors which feed into the process that leads to crime. They play a role in motivation and attention, but they do not, in themselves, explain why people break rules").

<sup>184</sup> *id.*, 236-243,

<sup>185</sup> Damasio n. 84.

et al.,<sup>186</sup> for example, administered both personal and impersonal moral dilemmas tests (i.e., the trolley dilemma and the footbridge dilemma)<sup>187</sup> to VmPFC-damaged patients. While these patients were providing same utilitarian responses as control subjects in impersonal harm dilemmas, they showed a much more marked utilitarian reasoning also in personal moral dilemmas -where control subjects did not. Based on these results, researchers confirmed the crucial role of the VmPFC in attaching emotional valence to moral considerations. Also, they noticed that normal utilitarian reasoning in impersonal dilemmas confirms the fact that VmPFC patients retain intact intellectual-rational abilities. Likewise, Mario Mendez and his colleagues<sup>188</sup> confirmed the crucial role of the VmPFC in moral and antisocial decision-making. They found that patients with Frontotemporal dementia, who are characterized by a lack of empathy for others and likely antisocial conduct, also tended to favor the utilitarian action in footbridge dilemma.

The overall corollary of illustrated neurocriminological findings is the reconsideration of the mental processes leading up to criminal behavior. First, as has emerged from this analysis, criminal decision-making, *quo* type of moral decision-making, involves the same brain circuits that are involved in moral judgments. If moral judgments are largely influenced by emotions and emotional processes, then immoral (or amoral) decisions resulting in antisocial or even criminal conduct may well be understood as an alteration - not necessarily pathological - in the workings of the brain circuits involved in emotional processing. In a nutshell, criminal decision-making is widely emotionally influenced. Changing the perspective on criminal decision-making may well have significant implications for the criminal law's rationalist conceptualization of the culpable agent. If emotions and feelings are integral parts of the brain and mental processes leading up to criminal decisions, a truly comprehensive and accurate model of the Legally Relevant Mind cannot but also include the emotional sphere in its relevant set.

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<sup>186</sup> See Michael Koenigs et al., 'Damage to the prefrontal cortex increases utilitarian moral judgements' (2007) 446 Nature 908; Liane Young et al., 'Damage to ventromedial prefrontal cortex impairs judgment of harmful intent' (2010) 65(6) Neuron 845.

<sup>187</sup> See n. 138 & 139.

<sup>188</sup> Mario Mendez et al., 'An Investigation of moral judgement in Frontotemporal Dementia' (2005) 18(4) Cognitive and Behavioral Biology 193.

## V. CONCLUDING THOUGHTS

The analysis of behavioral and, notably, neuroscientific studies on emotions and moral judgments demonstrates that the processes leading up to making moral decisions and adopting moral behavior are significantly emotion-informed rather than solely intellect-governed. In fact, the illustrated psychological and neuroscientific studies show that decision-making and behavior significantly rely on emotional processes. Furthermore, these findings show that affective processes significantly bias cognitive functions.

Summarizing, neuroscientific and psychological studies highlight the multiple roles served by affective states - both emotions and feelings - in guiding decision-making and behavior as follows:

- *Evaluative*: Emotions (and feelings) help us *appraise* emotionally-salient stimuli by giving value-laden information, and thus providing stimuli with emotional valences. Emotional appraisals of salient stimuli trigger and inform cognitive functions.
- *Regulatory*: Emotions regulate the maintenance of body internal integrity such that an organism can be prepared for specific reactions. Thus, emotions regulate our bodily response by prompting specific reactions to the inducing situation.
- *Motivational*: Emotions (and feelings) are motivational states. Upon perception of external stimuli, emotions help us select appropriate response, and thus motivate our behavior to respond to stimuli in an appropriate way.
- *Adaptive*: Emotions (and feelings) prioritize and organize behavior in ways that optimize the individual's adjustment to the demands of the physical and social environment.

As illustrated, the functions served by emotions are enhanced in moral decision-making processes. Neuroscientific studies demonstrate that the brain processes involved in moral judgments differ from those involved in non-moral or impersonal moral judgments. Importantly, there is adequate evidence showing that moral judgments embracing personal harm encompass a particularly marked activation of emotional

processes, whereas non-moral kinds of judgments show an increased activation of cognitive processes.

Studies on moral judgments are further confirmed by neurocriminological findings about the neural correlates of antisocial behaviors. These studies are increasingly showing that different kinds of antisocial behaviors share some common neural correlates. Importantly, these neural correlates overlap with those involved in emotional processing in moral judgments.

Neuroscience and neurocriminology have thus reversed the rationalist understanding of criminal behavior that has been held in criminological theory for a long time. The so called 'rational choice theory' used to account for criminal behavior as a rational, utilitarian choice, one which mostly involves cognitive/intellect-based dynamics - e.g. instrumental thinking and reasoning-, regardless of any significant emotional influence. In light of neuroscientific findings, criminological perspective on criminal behavior is also changing. Crime is starting to be understood as a moral action, involving the same mental and brain processes as those that are involved in moral decisions. As moral decisions - and behavior - are largely informed by our emotions, a proper understanding of criminal decision-making - and behavior- cannot but take into consideration emotional components.

The illustration of the role of emotions in moral judgments and decision-making - as is emphasized by a growing body of research in psychology, neuroscience, and neurocriminology- represents the turning point of this thesis. In fact, making emotion the central ingredient of moral and criminal decision-making inevitably highlights the limits and the flaws of the orthodox legal assumptions about human behavior underlying the notion of culpability. Notably, both behavioral and brain sciences emphasize that real-world decision-making is not purely the product of a metaphysical reason - understood as intellectual/cognitive power- that allows individuals to act for good reasons, but is instead the product of entangled emotional and cognitive processes which influence the propositional content of mental states leading to behavioral outcomes. Interestingly, as Gabriella Bottini and her colleagues note, a rational individual in a legal sense can nevertheless be dysfunctional from a neuroscientific

perspective.<sup>189</sup> Thus, we may say that the theoretical rationalist assumptions underlying the orthodox paradigm of the culpable agent do not make full sense in light of scientific advances.

To conclude, neuroscience reveals significant empirical shortcomings in the legal model of the culpable agent. The neuroscientific insights into emotions and moral decision-making show that criminal law's attribution of the relevant mental capacities for criminal responsibility to an alleged omnipotent cognitive sphere is grounded in obsolete moral intuitions, which do not have a real correspondence with the neurobiological realities of human decision-making. As we saw above, neuroscience emphasizes that cognitive intelligence is not the only source of an agent's decision-making processes leading up to either law-abiding or criminal decisions-and behavior. Rather, cognitive intelligence is only *one* of the mental components of decision-making, which only together with emotion may properly contribute to an individual's actual practical moral reasoning in accordance with, or in breach of the requirements of law. By translating this scientific information in legal language, it can be inferred that the mental fulcrum of blameworthiness, i.e., the mental core of culpability - cannot (only) be an alleged omnipotent instrumental intellect giving rise to cognitive and volitional functions. Criminal law grounds the conception of culpability in an incomplete understanding of the mental dynamics underlying both law-abiding and criminal decision-making, for it does not consider properly another crucial mental sphere - the emotional one-, which is central in rational decision-making, moral judgments, and ultimately social behavior (both *pro* and *anti*).

In view of this scientific evidence, criminal law's traditional notion of culpability appears to be empirically deficient. It follows that a conceptual mechanism of re-evaluation of the concept of culpability, one that incorporates the illustrated neuroscientific findings about emotions and moral decision-making in the legal-psychological assumptions founding the Legally Relevant Mind, has the potential of rendering the notion of culpability both empirically accurate and legally desirable. Said conceptual mechanism requires careful elaboration, and will constitute the subject matter of the next chapters. The upcoming, and central, step of this thesis will be to start

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<sup>189</sup> See Gabriella Bottini et al., 'Past, present and future of neuroscience and law' (2013) 1 *Rassegna Italiana di Criminologia* 17, 18.

tracing an emotion-oriented theory of culpability in light of the neuroscience of moral decision-making.



## Chapter Three

### Culpability Reconceived: A Proposal for an Emotion-oriented General Theory informed by the Neuroscience of Moral Decision-Making and Antisocial Behavior

*“Reason is, and ought only to be the slave of the passions,  
and can never pretend to any other office than  
to serve and obey them.”*

David Hume

#### I. INTRODUCTION: CHANGING THE “MIND” BEFORE CHANGING THE LAW

Brain (and behavioral) sciences reveal significant empirical shortcomings in the legal model of the culpable agent. The illustrated scientific insights into emotions and moral decision-making, and antisocial behavior, show that criminal law’s attribution of the mental traits relevant for culpability to an alleged omnipotent cognitive/intellighential sphere is grounded in obsolete folk intuitions, which do not have a real correspondence with the neuropsychological realities of human decision-making. Notably, neuroscientific disciplines emphasize that cognitive intelligence is not the only source of rational decision-making - moral and antisocial alike-, but is instead *one* of the mental components that *together* contribute to an individual’s practical reasoning leading him or her to act in (dis)accordance with the requirements of moral and legal rules. More importantly, neuropsychological sciences emphasize that also emotion - not only cognition - is a core component of moral decisions, and behaviors. Notably, it is emotion that moderates our moral appreciation of salient stimuli, and therefore guides appropriate behavioral responses to those stimuli. In a nutshell, emotions are absolutely essential to catalyze the motivational centers that lead to doing.

If emotions prompt one's decisions towards certain behaviors and away from others, thereby bearing on cognitive states and volitional processes, then the emotional quality of one's decisions should be considered as a fundamental element to judge an individual's culpability. In other words, given the number of critical functions that emotion serves in moral decision-making, emotion is anything but negligible, and should thus be reconsidered in our traditional notion of culpability.

In view of the above, this Chapter aims at incorporating said neuroscientific assumptions about emotion and moral decision-making, and antisocial behavior, in the substance of culpability. It does so by first revising the substance of the Legally Relevant Mind - and thus the paradigm of the culpable agent - by including emotions in its relevant set. Based on this revised model, the Chapter argues for rethinking the general understanding of culpability with the aid of neuroscience, and thus provides an alternative, emotion-oriented conception.

Admittedly, one may wonder why a neuropsychological understanding of decision-making is necessary to revise the foundations of our notion of culpability, as the law's use of intellect-based, commonsense-based understanding of rational reasoning is at least suitable and coherent to describe what mental processes are relevant to hold someone culpable. In this respect, Michael Moore, for example, maintains that:

“The very abstract view of persons in terms of autonomy and rationality is of course radically incomplete as a picture of any person we know. In particular, left out is the life of the emotions where, if anywhere, the ‘affection of other men’ is gained. Yet the radical incompleteness of the law's view of a person is no argument that it is wrong. As far as it goes, the law's view of persons could be quite correct even if radically incomplete.”<sup>1</sup>

Paraphrasing Moore's thought, criminal law does and should settle for its folk psychological descriptions of human thought - though they may be limited - because that is all the law needs to hold someone criminally responsible. The law needs to speak common, intuitive language, that is, it must speak an understandable language that its recipients (lay people) can understand. Folk psychology perfectly serves this function. As Michael Pardo and Dennis M. Patterson maintain, folk psychology is just a network

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<sup>1</sup> Michael Moore, *Law and psychiatry* (Cambridge University Press 1984), 112.

of concepts by which we make sense of our social and mental life. Folk psychology is nothing more nor less than a *vocabulary*.<sup>2</sup> Yet while this vocabulary, though it does not grasp a fully correct picture of human thought, may be acceptable for our everyday speech, it may not be satisfying in the context of criminal law. In fact, can limited and, in a sense, flawed descriptions of human thought and behavior suffice in a context where it is a matter of understanding as much as possible if an agent possesses the mental traits to be held responsible for a crime, and possibly be punished?

The answer to this question implies a negative response. With this claim, I am not supporting the eliminativist perspective<sup>3</sup> about the elimination of our “folk” discourses and their replacement by a cold, sterile neuroscientific complexity. Rather, I suggest that criminal law might want to consider the knowledge offered by neuroscientific disciplines to correct its flawed assumptions about the mental traits featuring an agent’s practical moral reasoning and decision-making conditions leading to a culpable choice, and thus improve the plausibility of its culpability notions with more accurate contents. The claim made by Moore that the legal approach may remain true although it is radically incomplete exposes itself to criticism, for the incompleteness of the practical reasoning and decision-making conditions underlying the traditional conception of culpability, and culpability notions, is precisely a means of evading the truth of how individuals reason and make decisions in moral contexts, like criminal offending.

As will be made plain, the argument for rethinking culpability with the aid of neuroscience moves from the normative consideration that the criminal law’s reduction of blameworthiness to the sphere of cognition contrasts with the universal principle of personal guilt. Here the word “personal” does not only mean that culpability, and thus criminal responsibility, can only be attributed to the actual perpetrator of a given criminal wrongdoing. Rather, the word “personal” also indicates that culpability needs to be based on an individual’s actual mental and moral participation in the commission of the offence. That is, the personal character of culpability must also be found in an individual’s inner approval to act in breach of community values.

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<sup>2</sup> Michael Pardo & Dennis M. Patterson, ‘Philosophical foundations of law and neuroscience’ (2010) *University of Illinois Law Review* 1212, 1246.

<sup>3</sup> See Paul Churchland, ‘Eliminative materialism and propositional attitudes’ (1981) 78 *The Journal of Philosophy* 67.

The mental participation in criminal offending must be of such a kind that it exhibits a reprehensible attitude of either indifference or disregard for legally protected values. As I shall argue, neutrally descriptive and cognitive states (i.e., knowing, understanding, willing) are not sufficient to account for this attitude of disregard. As scientific findings suggest, moral judgments about whether or not to engage in any given conduct, especially when the interests of other individuals are concerned, is largely mediated and influenced by our (moral) emotions.

To put it differently, the decision to act in breach of relevant legal values derives from an individual's judgment that acting in violation of those values is appropriate. As we saw, this kind of moral judgment is largely emotionally-influenced than solely cognitively-driven. To translate this in legal terms, an individual's attitude of disregard or lack of concern for legally protected values cannot only be found in a cognitive state of mind, but also, and especially, in the affective states that made him judge it appropriate to engage in criminal behavior, thereby influencing his decision to opt for a culpable behavior.

The Chapter is structured as follows. Section II brings to light and corrects three flawed legal assumptions about the relevant mental conditions necessary for moral, and criminal, decision-making in the light of neuroscientific knowledge. First, it outlines that the law's assumption that emotion has no role in moral judgments and practical moral reasoning is mistaken, and should therefore be reconsidered. Second, and consequently, it outlines that the law should rethink the relationship between emotion and cognition in moral decision-making. Notably, it emphasizes that cognitive intelligence alone cannot give rise to moral decisions, but it does so only when it is coupled with emotion. Third, it underlines the criminal law's mistaken attribution of volitional processes to intellectual powers. Contrary to the legal understanding, our choice and inhibition faculties depend primarily on how our emotions make us judge the significance of perceived stimuli (and thus drive our response to those stimuli) and then on how our cognitive system regulates down this emotional information. It thus suggests that criminal law should accept that, first, volitional processes also depend on our emotions; second, our choice to act, or not act, upon our impulses does not depend solely on cognitive intelligence, nor on the cognitive functions of understanding, or knowledge. An individual may retain perfect moral and factual knowledge, but his

choice-making may still be very poor due to an imbalance or a lack of coordination in the interaction between emotional and cognitive systems.

After revising these legal conceptual shortcomings with the aid of neuroscience, the Chapter moves to reconceptualizing the substance of the Legally Relevant Mind (Section III). More specifically, it seeks to demonstrate that the inclusion of neuroscientific insights into emotions and moral judgments provokes an expansion of the substance of the Legally Relevant Mind from *one-dimensional* – cognitive intellectual- to *three-dimensional* - cognitive intellectual, emotional, volitional. Each sphere serves its own functions, and equally contributes to the ideal conditions of decision-making and practical moral reasoning leading up to culpable choices and behaviors. Based on this revised model of the Legally Relevant Mind, the ideal culpable agent will thus be understood as an individual who (must be able to) knows (is aware of or understands) the factual, and moral, significance of his actions, feels the moral significance of his actions, and wilfully chooses to act upon his antisocial impulses and thus to engage in unlawful conduct.

The revision of the Legally Relevant Mind, with the consequent reconsideration of the paradigm of the culpable agent, will serve as a basis upon which I shall reconceptualize the traditional general notion of culpability. Section IV argues that the notion of culpability should no longer be grounded in abstract and individualistic understandings of practical moral reasoning and decision-making conditions leading up to criminal behavior. On the contrary, it should be grounded in an understanding of practical moral reasoning and decision-making conditions in the context of criminal offending which, as we saw, implies a type of reasoning and decision-making processes that are significantly influenced by emotional mechanisms. Therefore, a truly accurate general notion of culpability should be enriched through the inclusion of the emotional mechanisms that move an individual to reason, decide, and thus act in a criminal way. Emotion constitutes the quintessential mental element that makes an unlawful decision reflect one's lack of concern or attitude of disregard for individual or community values. Therefore, a notion of culpability that expresses an actual judgment of blameworthiness should encompass also the affective processes that drive and motivate an individual to make culpable decisions, and engage in culpable behavior.

The reconceptualization of the general notion of culpability with the aid of neuroscientific insights into emotion and moral judgments and antisocial behavior concludes the first Part of this thesis.

## II. CORRECTING CRIMINAL LAW'S FLAWED ASSUMPTIONS ABOUT RATIONAL MORAL, AND ANTISOCIAL, DECISION-MAKING WITH THE AID OF NEUROSCIENCE

The theoretical rationalist assumptions about the mental factors necessary for rational decision-making and practical reasoning (law-abiding and antisocial alike) that undergird the orthodox model of the Legally Relevant Mind and the paradigm of the culpable agent, do not make (full) sense in light of neuroscientific advances. It is apparent that the criminal law's ideal of the culpable agent is, in a sense, too abstract and simplistic. It should therefore be reconceived.

The overview of neuroscientific findings shows how real-world moral, and antisocial decision-making is not purely the product of only cognitive intellectual powers that enable individuals to act for good or bad reasons. Rather, it is associated with entangled emotional and cognitive processes that equally influence and drive one's decisions to engage in either moral or antisocial conduct. In particular, the neuroscientific analysis conducted in Chapter Two emphasized the critical role of emotions and feelings in driving - either unconsciously or consciously- all stages of moral reasoning up to orienting - or hindering- moral behavioral responses.

Admittedly, a step in this direction has been taken by Katrina Sifferd, who has attempted to re-conceptualize the mental competencies necessary for criminal responsibility in a way that provides a bridge between the common sense understanding of mental capacity and the neuroscientific theories.<sup>4</sup> However, Sifferd's attempt was limited to translating the mental competencies necessary for criminal responsibility into the executive functions within the brain. Yet the shortcomings remain. It is quite correct

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<sup>4</sup> Katrina L. Sifferd, 'Translating scientific evidence into the language of the 'folk': Executive function as capacity-responsibility' in N. Vincent (ed), *Legal Responsibility and Neuroscience* (Oxford University Press 2013) ch. 8.

to claim that the law's mental competencies required for responsibility are "translatable" into the executive functions of the brain (associated with activity in some regions of the Prefrontal Cortex). However, this means continuing to accept that morally rational decision-making necessary for culpability and responsibility belongs only to a cognitive/intellighential dimension, leaving out once again the crucial role of emotions. The point is that criminal law should precisely *change* its view of the moral, and antisocial, psyche, by possibly considering and including the other fundamental aspects of decision-making processes highlighted by neuropsychological sciences.

In other words, the folk psychological, rationalist intuitions about practical moral reasoning and decision-making in which criminal law grounds the culpable agent's relevant mental features do not entirely correspond to the neuroscientific explanations about the actual mechanisms that lead to moral and antisocial behavior. This discrepancy highlights the need to correct three main flawed "folk" assumptions accepted by criminal law concerning the Legally Relevant Mind.

#### A. Emotion promotes, or hinders, practical moral reasoning and moral behavior

As illustrated in Chapter One, most legal descriptions and judicial, or scholarly interpretations of culpability doctrines highlight the criminal law's general acceptance of a *mechanistic conception* of emotions. As has also been illustrated, the mechanistic conception views emotions as mental occurrences that distort reasoning, and thus do not contribute to the rational processes underlying practical moral reasoning and decision-making leading to either moral, or antisocial behaviors. Therefore, while cognitive intelligence is thought of as the only mental source of rational, moral or antisocial, decision-making - and thus cognitive states are thought of as the sole constitutive part of practical moral reasoning-, emotion is treated as a mere obstacle to rational (un)ethical decision making.

On the contrary, recalling what has been discussed in Chapter Two, neuropsychological findings indicate that emotions are responsible for informing - or impeding- authentically moral acts. Considering their evaluative, adaptive, and regulatory roles, emotions drive moral-decision making up to morally appropriate

behavior. As we saw, the perception or reception of salient stimuli primarily activates our emotions (*rectius*: our emotional circuits). When this occurs, our emotion system attaches an emotional valence - either positive or negative- to the perceived or received raw stimuli. This evaluation (or appraisal) predisposes and adapts our behavioral response to those stimuli (or events), and ultimately fuels our choice about what behavior to engage in, so as to respond appropriately to them.

The multiple roles of emotions are particularly at stake in moral judgments, and behavior - especially in personal moral decisions. As has been observed, “the content of emotion in moral judgments is a moral evaluation or an evaluation that has moral worth (such as one that recognizes the value of another person)”.<sup>5</sup> As such, emotions help us recognize and appreciate the moral value of given morally salient stimuli, and provide us with a moral motivation that orients our decision to act in a given way based on the value it made us attribute to those stimuli. Put this way, emotions can be a broad understanding of moral motivations.

According to Patricia Greenspan, the neuroscientific insights into emotions suggest that practical reasoning relies upon normal emotional development and functioning.<sup>6</sup> Considering their guidance role, Greenspan holds that emotions are factors in our practical reasoning for two main reasons. First, emotions reinforce nonemotional reasons - e.g. desires, beliefs. By evaluating brute facts (stimuli) through the attachment of positive or negative valences, emotions yields further non-emotional reasons “to sustain the conditions that make the evaluation appropriate.”<sup>7</sup> This implies an understanding of emotions in normative terms, as providing or expressing reasons for actions.

Put this way, all emotional feelings combine a belief-like aspect and a desire-like aspect. If so, emotional feelings might be relevant to moral reasoning in the way that beliefs and desires are relevant. For instance, feeling moral guilt at the prospect of doing a given act can involve a negative moral judgment that the act is morally wrong along with an aversion to that act. This feeling of guilt might be an input to our desires and beliefs, and thus to our overall moral reasoning up to our behavioral outcome.

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<sup>5</sup> Patricia Greenspan, ‘Practical reasoning and emotion’ in Alfred Mele & Piers Rawling (eds), *The Oxford Handbook of Rationality* (Oxford University Press 2004) ch. 11.

<sup>6</sup> *id.*

<sup>7</sup> *id.*

Second, emotions make an individual “hold in mind”<sup>8</sup> the content of the evaluation of brute facts.<sup>9</sup> More specifically, emotion provides *evaluative propositions* - e.g. that something might cause harm-, and thus anticipate practical eventualities of actions or situations, thereby making an individual react accordingly. Therefore, when an actor chooses to do something for a reason, he does so on the basis of some sort of pro attitude toward actions of a certain kind, that is, some emotional commitment to it, whatever it is.

In summary, contrary to legal understandings, emotion is central to appropriate moral judgment, and behavior. Therefore, emotion is a key factor in practical moral reasoning - for it informs the propositional attitude of non-emotional reasons- leading an agent up to make a certain decision, and engage in certain conduct.

Of course, while emotions may induce morally appropriate reasoning, and behavior, they may also produce the opposite result. By influencing the way an individual evaluates the moral significance of perceived stimuli, and thus by informing the content of other reasons for actions, emotional dysfunctions may alter the overall moral contents of decision-making and practical reasoning. In so doing, emotional dysfunctions may predispose an individual to engage in immoral, socially dysfunctional conduct.

In view of this, criminal law should cease excluding or disregarding the role of emotion in practical moral reasoning, and moral decision-making processes. As has been observed, “it is not only impossible, but *undesirable* to factor emotion out of the reasoning process”.<sup>10</sup> Therefore, criminal law should start both considering emotion as a relevant mental source of moral - as well as of antisocial - behavior, as well as including affective faculties in the range of the relevant faculties that are necessary to the notion of legal rationality that connotes the ideal culpable agent.

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<sup>8</sup> *id.*

<sup>9</sup> Greenspan derives this claim from Damasio’s somatic marker hypothesis.

<sup>10</sup> Susan Bandes, *The passions of law* (New York University Press 1999), 7.

## B. Cognitive faculties cannot produce moral behavior without emotional influence

As argued in Chapter One, criminal law views the culpable agent as a rational actor who is cognitively aware of the factual, as well as the moral value of the actions he performs. The assumption underlying this requirement is that cognitive intelligence alone, and cognitive faculties as a consequence, are able to produce morally appropriate behavior, regardless of any affective influence. Therefore, the evaluation of the mental traits relevant for culpability, and criminal responsibility as a consequence, is limited to the agent's cognitive sphere, through his knowledge (or understanding) of the significance of the criminal act he committed.

Neuroscientific (and behavioral) disciplines show that this assumption is misguided. On the contrary, these disciplines assert that cognitive intelligence is not the sole mental source of practical moral reasoning, and moral decision-making. While cognitive intelligence is surely necessary for factual, verbal knowledge and understanding, as well as an important component of our moral reasoning, the contents of our moral decisions are largely determined by the way our emotional systems make us appraise the moral significance of perceived stimuli, thereby moving us to decide in response to those stimuli in a given way, and to act accordingly.

Thus, neuropsychological sciences largely reject the view that emotions are to be considered as the opposite side to cognitive intellect, nor as the main source of irrational decision-making. Rather, emotion and cognition *equally* contribute to the production of moral decisions, and behavior. Notably, cognitive functions (that are mostly associated with activity in cortical brain regions, like the DLPFC) are significantly biased by affective processes (that are mostly associated with activity in subcortical regions, like the amygdala, as well as some cortical regions, like the OFC and the VmPFC). Therefore, and thus when decisional processes get to the stage of cognition they reflect the way they have been first processed at the emotional level. In other words, “by biasing memory, decision making and choice behavior, reasoning, attention, and physiology, emotions influence action and action readiness in ways both strong and subtle”.<sup>11</sup>

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<sup>11</sup> Deidre L. Reis & Jeremy Grey, ‘Affect and action control’ in Morsella, Bargh & Gollwitzer (eds), *Oxford Handbook of Human Action* (Oxford University Press 2009) ch. 14, 278.

In view of this, the assumption that emotion, unlike cognition, is functionally irrelevant to rational moral decision-making proves mistaken. Not only emotion is not essentially disruptive of moral cognition; but, and more importantly, actual moral knowledge or understanding does not lead to moral behavior *without* emotional influence. In other words, our verbal knowledge or understanding that a given action is right or is wrong cannot be true or real without being accompanied by prior either positive or negative emotional evaluations of it.

Therefore, we can surely be aware of the factual facet of our conduct (“I am stealing a car”), but we cannot also truly understand its moral significance in a given social context (“Stealing is wrong.”) without also feeling this moral significance. How could one plausibly truly understand the moral significance of stealing someone else’s property without also emotionally perceiving the moral significance of stealing? The very thought that such a thing might be possible proves, in a sense, absurd. Using Jess Prinz’s words, “[i]t’s a bit like reporting that bananas are yellow without forming a mental image of yellowness”!<sup>12</sup>

To make these claims clearer, let us return to the example of psychopathy. A growing body of neuroscientific and neurocriminological research demonstrates that psychopaths exhibit abnormal and antisocial behaviors *precisely because* they suffer from a deficiency of core negative emotions, in particular fear, and sadness. Without core negative emotions, psychopaths are not able to acquire empathic distress, remorse, or guilt. In other words, patients suffering from psychopathy make socially poor or immoral decisions because they are unable to generate the feelings that guide adaptive decision-making in healthy individuals. As one study has demonstrated,<sup>13</sup> psychopaths

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<sup>12</sup> Jess Prinz, ‘The Emotional Basis of Moral Judgments’ (2006) 9:1 *Philosophical Explorations* 29, 32 (“ [...] Can one sincerely attest that killing is morally wrong without being disposed to have negative emotions towards killing? My intuition here is that such a person would be confused or insincere. [...] Conversely, if a person did harbor a strong negative sentiment towards killing, we would say that she believes killing to be morally wrong, even if she did not have any explicit belief about whether killing diminished utility or led to contradictions in the will”). See also Carl Elliott & Grant Gillett, ‘Moral insanity and practical reason’ (1992) 5 *Philosophical Psychology* 53 (stating that “[m]orality involves more than simply knowing what society’s moral norms and values are. It also involves endorsing and internalizing them”); Anthony Duff, ‘Psychopathy and moral understanding’ (1977) 14 *American Philosophical Quarterly* 189, 194 (“An understanding of moral concepts and values requires not just an intellectual recognition of the criteria by which others make moral judgments, but a concern for such values”).

<sup>13</sup> James Blair, ‘A Cognitive Developmental Approach to Morality: Investigating the Psychopath’ (1995) 57 *Cognition* 1.

treat the word “wrong” in a purely conventional way, as if “wrong” simply meant ‘prohibited by local authorities’. This means that even if psychopaths are perfectly capable of distinguishing *verbally* rightness from wrongness, and therefore of knowing the moral and legal meaning of a given action, they suffer from such emotional dysfunctions that their capacity to engage in morally and legally appropriate behavior is still impaired.<sup>14</sup>

All things considered – contrary to legal understandings -, the mental substance behind moral reasoning, and actions, has a double dimension: one is factual, and involves cognitive faculties to a greater extent; the other is evaluative, and involves both emotional faculties (to a significant extent) and cognitive faculties. In a nutshell, moral decision-making encompasses both factual and evaluative dimensions, both of which are critical in prompting morally appropriate conduct. Appreciating the moral meaning of one’s own conduct does not simply mean to tell right from wrong, but also to feel the moral significance of that conduct in a given social context. It is moral concern, expressed through our emotions, that leads to moral action.

Emotion and affect have a bearing on moral rationality, for verbally knowing the value of an action is not sufficient to account for one’s decision to behave morally in a given social context. Considering these insights, the culpable agent should also and primarily (be able to) *feel* – rather than simply *know* – normative reasons for action. That is, the culpable agent must also (be able to) *emotionally appreciate* the moral significance of his conduct.<sup>15</sup>

### C. Volition also (and especially) depends on emotion

As has been illustrated in Chapter One, the traditional model of the Legally Relevant Mind encompasses also a volitional component. The dominant legal view conceives of volition as that faculty of the mind that conforms one’s choice of conduct to the factual,

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<sup>14</sup> For a further discussion on psychopathy, see *infra* Chapter Five.

<sup>15</sup> See Ralph Slovenko, ‘Psychiatry, Criminal Law, and the Role of the Psychiatrist’ (1963) *Duke Law Journal* 395, 397 ( ‘The dictum, “Cogito, ergo sum,” “I think, therefore I am,” is, however, the formula for the schizoid intellectual's struggle to possess an ego. A healthy human being would be more likely to start from "I feel, therefore I am.”’).

and moral, knowledge, or understanding of it, and thus transforms one's choice into an action. Briefly, volition in criminal law is generally understood as an individual's aware choice to act upon antisocial impulses, although he is provided with capacity for self-control. Thus, as has been specified in Chapter One, the culpable agent is one who *can* do otherwise (i.e., he has the capacity to opt for act lawfully), but simply *won't* (i.e., he chooses to act upon his antisocial impulses).

As we also saw, criminal law attributes volitional faculties to the cognitive sphere of the mind. First and foremost, volitional faculties (wilfully choosing, and controlling conduct) are assumed to rely upon cognitive faculties (prior knowledge, or understanding, of the both the factual, and moral, significance of that conduct - as is expressed in the Latin maxim *nihil volitum nisi precognitum*). Second, and consequently, criminal law presumes that volition depends on cognitive intelligence. In fact, by enabling one's knowledge, or understanding, of the factual, and moral, significance of given conduct, cognitive intelligence is assumed to also imply one's choice of action by virtue of that knowledge, or understanding. On the contrary, emotion is treated as a mental occurrence that interferes negatively with volitional processes, for it is assumed to weaken self-control, and thus to impair appropriate choice-making. Indeed, emotion is often invoked in explaining weakness of will.

In contrast with the traditional legal view, neuroscientific studies demonstrate that choosing morally appropriate conduct, and controlling antisocial impulses, does not solely depend on cognitive-intellectual faculties, but also - and especially - on the emotional ones. The reason why emotions are so important also in volitional processes lies precisely in the evaluative, motivational and regulatory roles they serve in moral decision-making. As has been previously illustrated, emotions influence our action tendencies by making us appreciate a certain perceived event in a given context. The emotional valuation of a given stimulus impacts the flow of information processing up to cognitive levels, and ultimately triggers behavioral response.<sup>16</sup> Consequently, emotions allow us to prioritize motivations to pursue a given goal, and drive our

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<sup>16</sup> See Nico H. Frijda et al., 'Impulsive action: emotional impulses and their control' (2014) 5:518 *Frontiers in Psychology* 1, 3 (describing a model of impulsive action, the authors explain that impulsive action is event-elicited. In other words, it is triggered by how an object or an event is appraised at an emotional level).

decisions and actions accordingly. In a nutshell, as has been observed, “the motivational gap between knowing [something] and doing [something] is wholly affective.”<sup>17</sup>

According to the neuroscientific perspective, our ability to make appropriate choices, and thus to control our impulses, depends on our faculty to “wilfully suspend” the immediate gratifications in view of long-term outcomes, which is critical “to pro-social, law-abiding behavior”.<sup>18</sup> More specifically, choosing morally appropriate actions while retaining antisocial impulses derives from “our ability to prioritise long-term, delayed positive outcomes over short-term, immediate pleasure or benefit”.<sup>19</sup> This ability depends on our *reward system* which, as has been reported,<sup>20</sup> involves the activity of both subcortical and cortical brain areas that are largely responsible for emotional processing, motivation, drive and inhibition.

At the subcortical level, brain regions that are part of the reward system are the ventral striatum (including the VTA and the *nucleus accumbens*) and the amygdala.<sup>21</sup> The former is responsible for motivating our behavior by processing reward expectancy and triggering the subjective feeling of pleasure. The latter is also involved in reward expectancy, and notably in establishing expected reward representations in the PFC, which in turn guides behavioral choice.<sup>22</sup>

The role of the ventral striatum and the amygdala in goal-directed behavior and self-control is to be coupled with the role served by cortical regions, notably the dACC, OFC and the VmPFC, which - as may be recalled - are critical in emotion processing and regulation. The dACC is a point of contact between “brain regions that process negative feedback and punishment and brain regions that direct the motor and behavioural output dependent on this processing”.<sup>23</sup> Considering its peculiar position, the dACC motivates and regulates attention, action, and emotional responding - through

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<sup>17</sup> Theodore Y. Blumoff, ‘Rationality, Insanity, and the Insanity Defense: Reflections on the Limits of Reason’ (2014-2015) 39 *Law and Psychology Review* 161, 167.

<sup>18</sup> See Cole Korponay C. & Michael Koenigs, ‘The Neurobiology of Antisocial and Amoral Behavior’ in S. Moratti & D. Patterson (eds), *Legal Insanity and the Brain* (Hart Publishing 2016) ch. 2, 27.

<sup>19</sup> *ibid.*

<sup>20</sup> See Chapter Two, Section III.B.

<sup>21</sup> Antoine Bechara et al., ‘Different Contributions of the Human Amygdala and Ventromedial Prefrontal Cortex to Decision-Making’ (1999) 19 *The Journal of Neuroscience* 5473.

<sup>22</sup> See, e.g., Mark Baxter et al., ‘Control of response selection by reinforcer value requires interaction of amygdala and orbital prefrontal cortex’ (2000) 20(11) *The Journal of Neuroscience* 4311.

<sup>23</sup> Korponay & Koenigs n. 18, 27.

its connections to other brain areas, including the DLPC, OFC, VmPFC, amygdala, and the brain stem.<sup>24</sup>

As with the OFC and the VmPFC, which are considered to be central in emotion processing, there is an adequate body of evidence showing their central role in the processing of reward and punishment, and therefore in motivating goal-directed behavior. As has been outlined in the previous Chapter, people with altered VmPFC functioning possess adequate social and moral knowledge, but they appear to be unable to effectively apply that knowledge to action. Consequently, even if they are able to state what they should do in a given moral situation, they choose to do something else.<sup>25</sup>

Damasio's famous work on his young patient, whom he referred to as Elliot, confirmed the crucial role of the VmPFC in influencing emotional life, choice-making, and social behavior. The patient had undergone a radical personality change after a surgery to remove a brain tumor on the surface of his frontal lobes. Elliot's cognitive intelligence had remained intact after the operation. However, just like Phineas Gage, Elliot's decision-making abilities seemed to be seriously compromised. In post-surgery tests, wrote Damasio, "Elliot emerged as a man with a normal intellect who was unable to decide properly, especially when the decision involved personal and social matters".<sup>26</sup> For example, Elliot took half an hour to choose one of two dates for making his next appointment, using sophisticated "rational" strategies involving cost-benefit calculations. It was at this point that Damasio gave Elliot a test that showed one additional post-operation change. Elliot's VmPFC damage had compromised his ability to feel and process emotion, and thus to make personal and socially appropriate decisions. "The cold-bloodedness of Elliot's reasoning," writes Damasio, "prevented him from assigning different values to different options, and made his decision-making landscape flat."<sup>27</sup>

In a famous series of experiments designed by Damasio's colleague Antoine Bechara at the University of Iowa, patients with Elliot's emotion-dampening type of brain damage were found to be unusually slow to detect a losing proposition in a card game.

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<sup>24</sup> See Marc Lewis & Rebecca Todd, 'The self-regulating brain: Cortical-subcortical feedback and the development of intelligent action' (2007) 22 *Cognitive Development* 406, 416.

<sup>25</sup> See Richard E. Redding, 'The Brain-Disordered Defendant. Neuroscience and Legal Insanity in the Twenty-First Century' (2006) 56:1 *American University Law Review* 51, 78.

<sup>26</sup> Antonio Damasio, *Descartes's Error: Reason, emotion, and the human brain* (Penguin 1994) 43

<sup>27</sup> *id.* 51.

In a lesion study using the Iowa Gambling Task (IGT),<sup>28</sup> Bechara et al. examined the decision-making of patients with damage to the VmPFC/OFC.<sup>29</sup> Here the authors suggested that patients with VmPFC/OFC damage lack mechanisms of emotion-related feedback that healthy participants use to adaptively bias the choices they make in the Iowa Gambling Test. The behavior of VmPFC/OFC-damaged patients is consistently characterized by impairments in both emotion and feeling, and this implies impairments in choice-making. Therefore, VmPFC patients' decision-making abilities are impaired due to their lack of appropriate affective basis on which adaptive choices could be made.<sup>30</sup>

In another study, Bechara et al. compared the different role of the VmPFC and the amygdala damages in volitional processes. They concluded that amygdala damages can hinder, or strongly reduce, one's ability to evoke the emotional attribute of an emotionally charged stimulus. As a consequence, amygdala patients are unable to experience sufficiently the emotional attributes of a situation that is charged with emotion. Similarly, a study conducted by Hampton et al. showed that patients with amygdala damages exhibited a profound change in PFC activity related to reward expectation and behavioral choice, indicating that information related to behavioral choice in PFC relies directly on input from the amygdala.<sup>31</sup>

These and other studies thus indicate that subcortical regions, like the amygdala, process perceptual stimuli (events), through the generation of appropriate emotional responses. Consequently, prefrontal regions exert modulatory control on the representation of perceptual stimuli, and thus in turn modulate the expression and evaluation of emotions. In other words, the emotion response to a given event (or stimulus) facilitates exertion of cognitive control, and cognitive control regulates down

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<sup>28</sup> In Iowa Gambling Test, participants are required to choose between decks of cards that yield high immediate gain but larger future loss, i.e., long-term loss, and decks that yield lower immediate gain but a smaller future loss, i.e., a long-term gain.

<sup>29</sup> Anthony Bechara et al., 'Insensitivity to future consequences following damage to human prefrontal cortex' (1994) 50(1-3) *Cognition* 7; Lesley Fellows & Martha J. Farah, 'Different underlying impairments in decision-making following ventromedial and dorsolateral frontal lobe damage in humans' (2005) 15(1) *Cerebral Cortex* 58.

<sup>30</sup> See Redding n. 25, 68 ("Whereas damage to the orbitofrontal cortex in adults impairs somatic markers for decision making it spares abstract knowledge regarding decision making; such patients can usually describe what to do in an abstract choice, but become impaired when faced with actually having to choose themselves.").

<sup>31</sup> Alan N. Hampton et al., 'Contributions of the amygdala to reward expectancy and choice signals in human prefrontal cortex' (2007) 55 *Neuron* 545.

emotional inputs.

As emerges from these explanations, there is nothing like a regulator and a regulatee in the brain. No action requires regulation by a particular control system. Rather, functional choice-making and self-control are governed by a sufficiently powerful “coordination system” between subcortical and cortical brain structures.<sup>32</sup> As Lewis and Todd explain, cortical (mostly cognitive) and subcortical (mostly emotional) regions stand in a reciprocal relationship during choice-making and self-regulation, in that “cortical activities regulate subcortical activities through executive modulation of prepotent appraisals and emotional responses; [while] subcortical systems regulate the cortex by tuning its activities to the demands or opportunities provided by the environment”.<sup>33</sup> Therefore, emotional appraisal of external stimuli, and cognitive control over emotional responses are both critical in guaranteeing appropriate choices, and thus behavioral outcomes.

Importantly, the system involved in choice-making and behavioral control is irrespective of an individual’s moral knowledge, or understanding of his conduct. As Salposky puts it, “it is possible for a person to retain the cognitive capacity to distinguish right from wrong and, nonetheless, to be organically incapable of regulating the appropriateness of their behavior”.<sup>34</sup>

In confirmation of this, studies on impulse control in antisocial population have found significant links between deficits in socio-emotional circuits - encompassing both cortical and subcortical regions- and inhibition. A very much supported hypothesis emerging from these studies is that those who show a lack of insight into their own behavior, as well as moral emotions and emotional tendencies towards others (e.g., empathy)<sup>35</sup> are less inhibited in violating the rights of others. For instance, injury to the VmPFC and the ACC - which, as seen above, are critical in emotional processing as

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<sup>32</sup> See Lewis & Todd n. 24, 412 (“Coordination across levels of the neuroaxis is a powerful vehicle for self-regulation, and specifying particular structures at particular levels opens the door to a precise descriptive language for modeling psychological self-regulation using neural terms.”).

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

<sup>34</sup> Robert Salposky, ‘The frontal cortex and the criminal justice system’ (2004) 359 *Philosophical Transactions of the Royal Society of London B*. 1787, 1790.

<sup>35</sup> James Blair & Karina Blair, ‘Empathy, morality, and social convention: Evidence from the study of psychopathy and other psychiatric disorders’ in J. Decety & W. Ickes (eds), *The Social Neuroscience of Empathy* (MIT Press 2009) ch.11; Richard Davidson et al., ‘Dysfunction in the neural circuit of emotion regulation’ (2000) 289 *Science* 591.

well as in behavioral motivation and regulation through cognitive and affective mechanisms - have been linked to the onset of reckless and antisocial behavior without remorse.<sup>36</sup> Importantly, as one study highlights, “[w]ithout the restraint of intuitive moral emotions and self-other conjoining, [...] patients may not be able to deter an impulse to act in an unacceptable manner, even as they know right and wrong and understand the nature of their acts.”<sup>37</sup>

In line with this perspective, criminologists Wikström and Treiber<sup>38</sup> hold that the faculty to select morally appropriate behavioral responses by holding back impulses (i.e. by exerting self-control)- derives precisely from the individual’s ability to act in accordance with his/her moral judgment (i.e., a judgment on what is right and what is wrong) when faced with morally conflicting temptations or provocations in a given context. In other words, volition corresponds to the ability to act upon evaluations that are in line with one’s pre-existing moral ideals and goals. Consequently, one is able to make morally appropriate choices, and retain antisocial impulses, as long as he *emotionally cares*, i.e. is morally triggered (or, he is driven by moral emotions) about the affective consequences of being controlled, and therefore of behaving in socially agreeable fashion.

All things considered, cognitive and emotional functions *carry equal weight in choice-making and impulse control*. Importantly, our volitional power to choose what conduct to engage in in a given moral context, and thus to control our impulses, is not a logical consequence of our cognitive faculties of knowledge and understanding. Rather, it is the result of multiple cognitive and emotional processes which allow us to suit our behavioral response in a given situation. Put differently, if our moral behavior is the product of an intertwining of cognition and emotion, and if we accept that emotion, like

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<sup>36</sup> See, e.g., Michael Koenigs, ‘The role of prefrontal cortex in psychopathy’ (2012) 23(3) *Rev. Neurosci.* 253; Julian Motzkin et al., ‘Ventromedial Prefrontal Cortex is critical for the regulation of amygdala activity in humans’ (2015) 77(3) *Biological Psychiatry* 276.

<sup>37</sup> Mario Mendez, ‘The neurobiology of moral behavior: Review and neuropsychiatric implications’ (2009) 14(11) 608.

<sup>38</sup> See Per-Olof H. Wikström, ‘Individuals, settings and acts of crime. Situational mechanisms and the explanation of crime’ in P.O.H. Wikström & R. Sampson (eds), *The Explanation of Crime: Context, Mechanisms, and Development* (Cambridge University Press 2006) ch.3; Per-Olof H. Wikström, ‘Situational Action Theory’ in Francis Cullen & Pamela Wilcox (eds) *Encyclopedia of Criminological Theory* (SAGE Publishing 2010); Per-Olof H. Wikström & Kyle Treiber, ‘Violence as situational action’ (2009) 3:1 *International Journal of Conflict and Violence* 75.

cognition, is a crucial component of moral behavior, then the (lack of) conformity of our conduct to a given moral context, or the engagement in (im)morally appropriate behavior, is to be associated with cognitive and emotional (dys)functions alike.

To conclude, there is not a precise localization of appropriate choice-making and self-control in the brain. Yet there is a multitude of complex and interrelated brain mechanisms involved. These brain mechanisms are not purely or solely cognitive, but they form a complex circuit in which affective functions also play a prominent role in the evaluation, information processing, regulation, and appropriate reaction to morally salient stimuli. Therefore, the verbal, or moral knowledge, or understanding, of the meaning of a certain action is far from automatically implying also the control of antisocial impulses, and the making of a morally appropriate choice.

Not only should volition and cognition be evaluated and assessed separately, but the fundamental role that emotions serve in affecting willful choices and self-control in moral domains should also be reconsidered. In other words, intellectual or cognitive understanding, or knowledge are not sufficient to induce morally appropriate choices and self-control. As Jeffrey Rosen asserts, “you can have a horrendously damaged brain where someone knows the difference between right and wrong but nonetheless can’t control their behavior. At that point, you’re dealing with a broken machine, and concepts like punishment and evil and sin become utterly irrelevant”.<sup>39</sup>

As both emotional evaluation and cognitive regulation are responsible for determining morally appropriate choices and behavioral responses, it logically follows that maladapted emotional responses and deficient cognitive regulation are *both and equally* capable of endangering one’s choice for appropriate behavior in response to a certain stimulus. Therefore, both emotional and cognitive dysfunctions may be seen as risk factors for appropriate choice-making and behavioral control.

As a consequence, also emotional dysfunctions may well alter the emotional evaluation of a given external stimulus. This may well have a significant negative impact on the content of the emotional information processed and modulated at a cognitive level, resulting in poor cognitive executive control over the behavioral

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<sup>39</sup> Jeffrey Rosen, ‘The Brain on the Stand’, New York Times (11 March 2007) 52, URL = <http://www.nytimes.com/2007/03/11/magazine/11Neurolaw.t.html?pagewanted=all> accessed 20 November 2016.

response.<sup>40</sup>

### III. RETHINKING THE LEGALLY RELEVANT MIND

Having solved the conceptual mismatches between criminal law and neuroscience, in this Section I shall propose how criminal law could incorporate the neuroscientific teachings about emotions and moral decision-making processes in its understanding of the mental traits necessary for culpability. I shall do so by rethinking the substance of the Legally Relevant Mind and the model of the culpable agent.

In Chapter One, I outlined that the Legally Relevant Mind is one-dimensional, for it only encompasses *cognitive intelligence* as the mental source of the relevant faculties featuring the ideal culpable agent, and thus the psychological set of culpability. Based on this model, the ideal culpable agent, *quo* rational actor, is assumed to hold sufficient cognitive intelligence that enables him to both factually and morally know the acts he commits (the cognitive prong of culpability), and therefore to choose to engage in criminal conduct by wilfully acting upon his antisocial impulses (the volitional prong of culpability). On the whole, the traditional model of the Legally Relevant Mind - which forms the relevant set to engage in practical moral reasoning leading up to culpable behavior - is reduced to a descriptive, emotionally-cold, and instrumental dimension.

Neuroscientific disciplines provide a quite different, and more complex picture of how moral, and antisocial, reasoning, decision-making, and behavior actually work. As we saw, neuroscientific studies reveal that there is not one location in the brain, nor one mental sphere, that is responsible for either an individual's prosocial or antisocial tendencies. Rather, the mental normalcy to behave in either prosocial or antisocial manners requires the interaction of different brain areas underlying different aspects of moral decision-making processes.

First and foremost, "normal" behavior in moral contexts requires the proper working of emotional systems involved in moral processes. More specifically, normal moral, or law-abiding, behavior requires that the agent (be able to) evaluate the significance of his

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<sup>40</sup> Steven Penney, 'Impulse control and criminal responsibility: Lessons from Neuroscience' (2012) 35(2) *International Journal of Law and Psychiatry* 99, 100.

potential actions as right or wrong, and thus (be able to) feel their moral significance by virtue of his emotional faculties. Second, normal moral behavior requires an accurate factual understanding or knowledge of reality by virtue of one's cognitive faculties. Third, law-abiding behavior requires intact reward circuits - involving both emotional and cognitive functions- that drive and motivate appropriate choices in given circumstances, by preventing "irrational" impulses to do otherwise.

Based on these scientific insights, the Legally Relevant Mind moves from being one-dimensional to *three-dimensional*, for it comes to be composed of three *autonomous, yet interacting*, spheres of the mind - emotional (a feeling in regard of something), cognitive/intellectual (a knowing of something), volitional (striving towards something)-, each of which plays an equally relevant role in practical moral reasoning and decision-making processes leading up to criminal, and thus culpable behavior.

As the new model of the Legally Relevant Mind is made of these three spheres, it follows that the notion of rationality featuring the paradigm of the culpable agent, and the underlying culpability notions, will be enriched by further elements. To be more specific, rationality in the legal domain is no longer expressed through an individual's verbal understanding, or knowledge, of the factual and moral significance of his actions, and his choice to act in conformity to this understanding, or knowledge. Rather, rationality is also expressed through an individual's emotional feeling of the moral significance of his actions, in addition to already existing cognitive and volitional elements. Consequently, and in accordance with the neuroscientific perspective, the potential culpable agent must (be able to) *feel* the moral significance of his actions (emotional sphere), he must (be able to) *understand, and know, the factual and moral significance of his action (cognitive intelligence)*, and he must (be able to) *choose* his course of conduct by *feeling motivated to make criminal choices*, while being able to *control* his impulses (volitional sphere). Each faculty needs a more detailed description.

A. Emotion as the mental source of the culpable agent's feeling of the moral significance of his actions

The most significant change to the substance of the Legally Relevant Mind is the inclusion of the emotional sphere. The emotional sphere of the Legally Relevant Mind would serve as a sphere that bears on the culpable agent's quality of moral judgments leading to his culpable decisions. While cognition - as is already understood - would be responsible for keeping the agent in touch with reality, and thus making him understand, or know, the factual meaning of his actions (e.g. the offender knows that pulling the trigger will probably cause the victim's death), emotion would instead be responsible for *enabling an individual to evaluate, feel, and perceive the moral significance of his conduct*, and thus contribute to an actual *moral understanding* of his behavior (e.g. the offender feels the moral significance of pulling the trigger, and thus of killing his victim).

As has been observed in Chapter One, the mental faculties featuring culpability may take on two shapes: either they take on the shape of "capacities", when they relate to substantial capacity doctrines (e.g. insanity); or, they can assume the shape of mental components of legally required states in *mens rea* notions. If we adapt this distinction to the emotional sphere, we can draw two ways by which emotion can be conceptualized within the relevant faculties featuring the ideal culpable agent. On a substantial capacity level, the emotional sphere of the Legally Relevant Mind could be expressed with the *agent's capacity to feel the moral significance of his actions*. In other words, an agent will be potentially culpable, and thus criminally responsible as long as he displays such an intact emotional system that makes him able to perceive the rightness or wrongness of his actions, regardless of his verbal understanding, or knowledge of their factual facet.<sup>41</sup>

At the *mens rea* level, the emotional sphere of the Legally Relevant Mind will get reflected in the affective quality of the motivation that moved an agent to act in a given, unlawful way. I previously outlined that emotions have a bearing on decisional

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<sup>41</sup> See Peter Arenella, 'Convicting the morally blameless: Reassessing the relationship between legal and moral accountability' (1992) 39 University of California Law Review 1511 (contending that moral responsibility requires certain moral-emotional capacities beyond practical reasoning, including the capacities to empathize with others, to internalize moral norms and to be self-critical).

processes as powerful catalysts of the motivations that drive one's choices, and behavior. In other words, when an agent acts for a reason, he must have a pro-attitude towards actions of a certain kind, that is, some emotional commitment to it. As I also observed, emotions themselves are practical reasons that inform reasoning and decision-making processes, by influencing inner motivations to act in a given way, and to behave accordingly. As a consequence, the evaluation of the emotional sphere within *mens rea* will look at the quality of an agent's motives that drove his decisional process to undertake given unlawful conduct, and possibly do social harm.

All things considered, the inclusion of the emotional sphere in the Legally Relevant Mind would allow for the evaluation of the moral dimension of an agent's attitude while engaging in antisocial conduct, and thus grasp fundamental aspects of his decision to act unlawfully, that cannot but be considered for an accurate evaluation of his blameworthiness. Ultimately, the inclusion of emotion in the Legally Relevant Mind would allow for a more accurate personalization of the assessment of an agent's culpability, beyond the factual and descriptive facets of his culpable choice.

#### B. Cognitive intelligence as the mental source of the culpable agent's factual and moral understanding, and knowledge, of his criminal wrongdoing

This mental sphere is already (and uniquely) included in the traditional model of the Legally Relevant Mind. As has been widely discussed, criminal law attributes the mental substance of culpability, and culpability notions, only to intellectual cognition. Traditionally, the cognitive sphere is both responsible for an agent's cognitive faculties of understanding and knowing the factual and moral meaning of his conduct, as well as for his volitional faculties of choice-making and self-control as a consequence. Rethinking the Legally Relevant Mind with the aid of neuroscience on moral decision-making implies the revision, and the limitation, of the role of cognitive intelligence. In fact, cognitive intelligence gets to serve a partially different role in two respects.

To begin with the roles that cognitive intelligence would keep in the revised model of the Legally Relevant Mind, neurosciences outline that cognitive mechanisms are critical inasmuch as the emotional ones in moral decision-making processes. While emotional

mechanisms are responsible for enabling an agent to feel the moral significance of his actions, cognitive mechanisms are instead responsible for enabling an agent's verbal understanding and knowledge of the moral significance of his actions. In addition to the emotional sphere in charge with the culpable agent's overall emotional and moral attitude towards the offence, the new model of the Legally Relevant Mind will retain the role of cognitive intelligence *qua* mental source of one's understanding, and knowledge, of the moral significance of his actions.

Apart from keeping a role in the evaluation of an agent's moral understanding of the offence, the other function of cognitive intelligence - as is already conceptualized in traditional legal understandings - concerns the factual understanding and knowledge of the act. That is, culpability requires that an agent is in touch with reality while committing the offence. Therefore, an agent must possess a sufficient degree of cognitive intellectual functioning that enables him to retain a factual understanding, and knowledge, of his action in a given context. For example, the evaluation of this specific mental prong will encompass an agent's IQ level.<sup>42</sup>

The only difference with respect to the traditional model of the Legally Relevant Mind is that cognitive intelligence is no longer treated as the mental faculty in charge with also volitional faculties. As has been widely discussed, volitional processes involve their own mechanisms that are irrespective of one's cognitive faculties of knowledge and understanding. In a nutshell, volition forms a mental sphere on its own. It follows that the role of cognitive intelligence will be limited to the purely cognitive functions like the factual and moral understandings and knowledge of criminal wrongdoing, but will not also control the volitional components of culpability notions.

Just like the emotional (and the volitional) spheres, cognitive intelligence will also explicate different functions depending on the relevant doctrine. As is already conceptualized in the traditional model of the Legally Relevant Mind, the cognitive sphere will be responsible for one's capacity to verbally understand the factual and moral meaning of his actions in substantial capacity doctrines. However, it will not also be assumed as the mental source of the capacity for self-control. In *mens rea* notions, the cognitive sphere of the Legally Relevant Mind will be reflected in one's factual

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<sup>42</sup> See Korponay & Koenigs n. 18, 31.

knowledge, or awareness of the conduct he is undertaking, in violation of legally protected values. However, it will not also encompass the choice to act in a given way based on prior knowledge, or awareness.

All things considered, unlike the traditional model of the Legally Relevant Mind where cognitive intelligence was the only relevant sphere in charge with the mental faculties underlying culpability notions, the new version of the Legally Relevant Mind is featured by a reshaped role of the cognitive sphere through the inclusion of further mental factors that neuroscience reveal to be crucial in decision-making processes in moral contexts.

### C. Volition as an autonomous mental source of the culpable agent's choice-making, and impulse control

The third sphere of the Legally Relevant Mind is the volitional sphere. Admittedly, volition is already included in the relevant substance of culpability, and of culpability doctrines. However, on a closer view, the reconceptualization of the Legally Relevant Mind implies the revision of the mental substance underlying volition, and volitional faculties as a consequence.

As has been widely discussed, the mechanisms that lie behind volition, and the volitional faculties of choice-making and impulse control, involve both cognitive and emotional faculties, which together motivate and drive deliberative processes in goal-directed behavior.<sup>43</sup> Notably, neuroscience teaches us that volitional processes depend on the proper functioning of the reward system, which connects emotional and cognitive brain structures that together prompt and guide our choices, while maintaining normal levels of self-control.

Within this reward system, both emotional and cognitive functions play equally crucial roles. On the one hand, emotion helps us appraise the significance of either perceived or received stimuli, and thus helps us evaluate the appropriateness of a given action as a response to those stimuli in a given context. It therefore prompts our behavioral response in accordance to that appraisal. On the other hand, cognitive faculties (i.e.

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<sup>43</sup> See Section II. C.

high-level executive functions), reappraise and modulate emotional responses by further adapting our choice and behavior to perceived stimuli. Importantly, cognitive control over emotional responses still relies upon the way the emotional system evaluated the appraised salient stimuli (good or bad, right or wrong, pleasant or unpleasant, rewarding or punishing). On the whole, neither emotion nor cognition alone guarantees a sound choice-making, and impulse control, but the two systems work together. Therefore, impaired choice-making coupled with deficits in impulse control, and following maladaptive behaviors, may be associated with damages in either emotional or cognitive systems.

Most importantly, choice-making and self-control are unrelated to one's cognitive understanding, or knowledge, of either the factual or moral significance of given behavior, and of its consequences. Rather, they also (and especially) depend on how we emotionally appraise the moral value of perceived events. It is precisely this emotional evaluation that predisposes us to react in a given way, thereby leaving our cognitive system to regulate our behavior.

The corollary of this scientific understanding of volitional processes is the reconceptualization of volition as an autonomous mental sphere, in which cognition and emotion play equally relevant roles in determining our choices, by holding back our impulses. Importantly, volition becomes a mental sphere independent of cognitive intelligence. As a consequence, the volitional faculties of wilful choice and self-control (as they are understood in criminal law) will not depend on the cognitive faculties of understanding and knowledge of either the factual, and moral, significance of a given act. To put it differently, the evaluation of the volitional component of culpability will no longer rely on the prior evaluation of the cognitive one. Rather volition (and the following volitional faculties) and cognitive intelligence (and the following cognitive faculties) come to be understood as two separated spheres, which stand in an independence relationship with one another.

All things considered, the new version of the Legally Relevant Mind comprises also an autonomous volitional sphere. The volitional sphere is treated as independent of any other relevant sphere. The evaluation of the faculties depending on the volitional sphere - i.e. the choice to act unlawfully in *mens rea* doctrines, and the capacity for self-control in substantial capacity doctrines- will no longer depend on the prior evaluation

cognitive faculties of understanding, or knowledge. Rather, volitional faculties will be understood as the result of the intertwining of emotional and cognitive mechanisms, which together contribute to choice-making and capacity for self-control.

The evaluation of the volitional component of culpability doctrines will thus embrace the emotional processes that prompt and motivate an individual to choose to engage in antisocial conduct - and possibly do harm- as well as the efficiency of cognitive faculties in regulating emotional inputs, in order to efficaciously determine behavioral choices while holding back impulses. This evaluation will be autonomous and irrespective of the cognitive faculties of knowledge and understanding. As a consequence, the culpable agent will be one who *chooses* to act upon antisocial impulses, regardless of whether or not he knows, or understands, what factual and moral consequences might derive from his conduct.

#### IV. FRAMING AN EMOTION-ORIENTED GENERAL THEORY OF CULPABILITY INFORMED BY THE NEUROSCIENCE OF MORAL DECISION-MAKING AND ANTISOCIAL BEHAVIOR

In a comment on practical reasoning and criminal responsibility, Alan Norrie offers a criticism of the criminal law's traditional approach of grounding criminal responsibility in abstract reasoning, i.e. a type of "practical reasoning that stresses its asocial and individual character".<sup>44</sup> Notably, he observes that criminal law's attribution of responsibility "focuses solely upon the existence of rationally formed intentions, and excludes from its gaze questions of how individuals come to form them—their motives, their motives' contexts, and so on".<sup>45</sup>

Also, Norrie criticizes the criminal law's tendency to decontextualize actions and intentions, and to abstract them from their social context.<sup>46</sup> He notes a parallel between the criminal law's understanding of practical rationality, and the rational choice

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<sup>44</sup> Alan Norrie, 'Practical reasoning and criminal responsibility: A jurisprudential approach', Derek Cornish & Ronald Clarke (eds), *The reasoning criminal: rational choice perspectives on offending* (Transaction Publishers 1986) ch.14, 221.

<sup>45</sup> *id.* 221 ("At the end of the day, of course, once the legal tests and procedures have been complied with, the law puts on its human face and hears any pleas of mitigating circumstances that counsel may be able to supply, but by then the legal texts have already been packed away.")

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

perspective,<sup>47</sup> one of the most influential theories of criminal decision-making in traditional criminology. The rational choice perspective assumes that “criminals, like all people, are rational actors and that their criminal behavior results from rational choices that they make in light of situational contingencies”.<sup>48</sup> Importantly, the rational choice perspective assumes that criminal behavior is necessarily governed *solely* by rational analyses of the costs and benefits of different courses of actions. While accepting a view of the criminal as a motivated actor provided with agency, the rational choice perspective does not also consider neither the context nor the actual processes that lead an individual to opt for a criminal choice.<sup>49</sup>

After outlining said limitations of the foundations of criminal responsibility, Norrie suggests that *situated* practical reasoning would better depict an individual’s decision sequence leading up to criminal actions. The main characteristic of situated practical reasoning is that it contextualizes reasons and actions in a given social environment and personal biography of the individual. As Norrie writes, “situated reasoning is reasoning from premises derived from the observation and understanding of the world in which the individual is both located and locates himself or herself”.<sup>50</sup> Therefore, to really understand why an individual reasons and acts in a given way, the social context and how an individual responds to that social context are fundamental to get a full picture of the quality of his practical reasoning underlying his criminal behavior.

In essence, Norrie contends, a situational approach to practical reasoning leading up to culpable choices provides a more accurate, and realistic picture of human action, than the abstract, alienated, and individualistic conception of practical reasoning adopted by criminal law presently does. On the whole, it would be a far more realistic basis upon which criminal law should ground its understandings of rationality and criminal responsibility.

I fully endorse Norrie’s criticism of the excessive abstractism and individualism featuring the mental foundations of the relevant reasoning for criminal responsibility, as

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<sup>47</sup> See Ronald Clarke & Derek Cornish, ‘Modelling offenders’ decisions: a framework for research and policy’ (1985) 6 *Crime and Justice* 147.

<sup>48</sup> Michael Benson & Tara Livelsberger, ‘Emotions, choice, and crime’ in Francis Cullen & Pamela Wilcox (eds), *The Oxford Handbook of Criminology* (Oxford University Press 2013) ch. 10, 494.

<sup>49</sup> See Robert Sampson & John Laub, ‘A life course view of the development of crime’ (2005) 602 *Annals of the American Academy of Political and Social Science* 12.

<sup>50</sup> Norrie n. 44, 220-221.

well as his suggestion for replacing the abstract understanding of reasoning with a situational approach. Contextualizing the practical reasoning leading up to criminal decisions, and behaviors, in social situations in which the reasoning is made does provide a more realistic picture of human actions. Yet my argument wants to take this a step further.

While acknowledging the excessive abstractism of the criminal law's approach to rationality and criminal responsibility, I also want to highlight the real shortcoming of this approach. That is, the actual reason underlying the limitations of the traditional mental foundations of culpability, and of criminal responsibility as a consequence, is that they are not able to grasp, depict, and thus account for the nature of the actions to which they refer.

Culpability constitutes the mental dimension of criminal responsibility. As such, it is strictly related to, or adheres to, the material dimension of criminal responsibility, i.e. the commission of crimes. Criminal law treats crime as if it was equivalent to an ordinary type of action - i.e. a typical action of everyday life that does not require any particular involvement, or judgment of the social implications it may produce on the part of the actor-, and thus involved the same kind of judgment and reasoning. Here is where the mistake lies. Crime is *not* an ordinary type of action. On the contrary, as we saw in the previous Chapter, crime falls within the category of moral actions, i.e. "actions that follow or break moral rules, and hence are guided by what is right and what is wrong to do".<sup>51</sup> As such, crimes are far more complex types of actions, in that they involve the strict combination of a certain environment, or setting, and the individual's moral perceptions, i.e. "the identification of action alternatives and their moral qualities in response to particular motivations in a particular setting".<sup>52</sup>

Paraphrasing this definition, we can infer that crime expresses a value judgment resulting in the choice to violate moral, social, and thus legal interests. In a nutshell, crime is a (dis)value-expressive behavior. Thus, the decision to engage in criminal offending cannot be simply framed in abstract reasoning resulting in antisocial conduct.

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<sup>51</sup> See Per-Olof H. Wilkström & Kyle Treiber, 'The role of self-control in crime causation' (2007) 4(2) European Journal of Criminology J (2007) 237, 246. See Chapter Two, Section V.

<sup>52</sup> *id.*

Rather, its frame needs to also encompass the individual's moral judgment to act in breach of legal values, and to harm the interests of other individuals.

Acknowledging and accepting the moral dimension of crimes is more in line with the notion of blameworthiness connoting the doctrine of culpability, and further confirms the desirability of incorporating neuroscientific insights into emotions and decision-making processes in its relevant psychological set. As has been discussed at the beginning of Chapter One, an exhaustive notion of culpability - that I have referred to as "holistic", following Kimberly Ferzan's approach- must not only encompass descriptive states of mind, but it must also grasp the overall blameworthiness of one's decision to engage in unlawful conduct, and (possibly) do harm. As I reported in Chapter One, Ferzan describes her holistic account of culpability as follows:

"Our evaluation that someone is culpable is a determination that a person's action revealed insufficient concern for the interests of others, and to make this assessment we need to know the mechanics and the quality of the agent's reasoning. [Put it this way, the assessment of culpability would require an analysis of *practical reasoning and decision-making conditions* underlying any blameworthy state of mind. It is precisely] the sum of these parts that gives rise to the normative judgment about whether the actor's reasoning gave due regard to the interests of others [i.e., whether it is blameworthy or not.]"<sup>53</sup>

Although this understanding of culpability is surely correct, the descriptive, cognition-based states upon which criminal law grounds the relevant mental substance of culpability are not sufficient to effectively depict an individual's attitude of disregard for legally protected values. In view of the illustrated neuroscientific teachings about moral judgments and antisocial behavior, we now know that the decision to engage in criminal behavior involves a far more complex mechanism in which other mental factors - other than cognitive states- play a critical role. Therefore, the criminal law descriptions of the relevant mental faculties necessary for culpability appear to be insufficient to grasp all relevant aspects of one's decision to engage in criminal conduct

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<sup>53</sup> Kimberly Kesser Ferzan, 'Holistic Culpability' (2007) 28:6 Cardozo Law Review 101, 121 (as has been reported in Chapter One, Section I).

and to act in breach of legally protected values-, for they reflect a partial picture of what it means making criminal decisions, and engaging in criminal behavior.

To put it slightly differently, while criminal law does acknowledge that culpability is, fundamentally, synonymous with blameworthiness, it still infers an individual's blameworthiness from only cognitive aspects of the practical moral reasoning leading up to criminal choices. Yet this appears to be not enough. Deducing an individual's lack of concern for the interests of others from the sole fact that he possessed some knowledge of his action, and chose to act accordingly - that is, from a practical moral reasoning made up of only cognition-based descriptive states- proves reductive and simplistic. There is a gap between the requirement of blameworthiness *qua* attitude of disregard for legally protected values, and the mental dynamics that allegedly give rise to and account for this attitude. The current conception of culpability relies upon mental foundations that are too neutral to grasp an individual's lack of concern for the interests of other individuals.

In view of this, a notion of culpability that is really expressive of blameworthiness, and truly reflects the moral nature of criminal actions, should embrace the mental dynamics that concur to the making of a reprehensible decision to act against legally protected values. That is, by acknowledging the moral nature of criminal actions, a more accurate notion of culpability should take into consideration the mental processes that underpin moral decisions and antisocial behavior. As a consequence, a truly accurate notion of culpability cannot ignore how actually people make prosocial or antisocial decisions, and thus needs to be reconceptualized in a way that moves its underlying mental substance from an abstract to a contextualized dimension, namely that of moral judgments and criminal decision-making.

As we saw, moral, and antisocial, decision-making does not solely involve cognitive faculties but also, and especially, the emotional ones. Once again: moral and antisocial decision-making alike involve primarily emotional mechanisms that prompt an individual's evaluations of morally salient events, motivate his responses to these events, and thus inform - or hinder- his moral judgments and, ultimately, his behavior. Also, these emotional mechanisms greatly influence the moral dimension of cognitive faculties and volitional processes, thereby bearing on the overall moral quality of an agent's decision to act in breach of the interests of other individual. Briefly put, law-

abiding and criminal decisions, and behaviors, are not the result of a cold, unemotional and calculating reasoning, but they are primarily driven by emotional evaluations that induce an individual to judge it appropriate to engage in either law-abiding or antisocial conduct.

For emotions (and feelings) are key components of (im)moral decision-making, and social behavior (anti and pro alike), a truly accurate conceptualization of the decision-making conditions, and practical moral reasoning mechanics, founding the essential requirements of culpability cannot but also encompass the quality of the affective processes that move an individual to choose to act in a given way in a moral type of context, that is that of crime commission.

Practical moral reasoning and decision-making conditions underlying culpable choices, and behaviors, must thus be understood in a more comprehensive fashion, namely as a combination of the quality of the affective processes that give rise to an individual's reasons to act in a given way in a given moral context, and the instrumental, cognitive states that form descriptive reasons for actions. To focus solely on the latter depicts an alienated form of individualism, that cannot account for the reality of criminal decision-making in social contexts.

To be a culpable agent is to act according to one's ability to reason morally, not in an abstract, but in a precise moral context, that is that of engaging in criminal conduct, and do social harm. Therefore, the inclusion of emotions in the faculties necessary for being a practical moral reasoner in a criminal context would allow for a better understanding of the agent's very attitude of disregard, or lack of concern, for legally protected interests. As such, the notions of practical moral reasoning and decision-making underlying culpable behaviors take on more evaluative and emotional connotations, rather than solely the cognitive and instrumental ones.

In view of this, the new general conception of culpability in the light of neuroscientific insights into moral-decision making and antisocial behavior will rely upon three main elements:

- 1) The affective, cognitive, and volitional quality of the actor's deliberation (i.e., whether the agent deliberated under ideal decision-making conditions);<sup>54</sup>

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<sup>54</sup> *id.*, 111-112.

- 2) The affective and cognitive mechanisms underlying practical moral reasoning (i.e., an agent's feelings giving rise to reasons for actions; the agent's consideration of the consequences of his actions; the coherence of an agent's reasoning in reference to his actions);
- 3) The actor's emotional perception of violating legally protected values (i.e., whether the agent accepted the harm's occurrence).

The reconceptualization of the substance of culpability through the inclusion of emotions appears to better combine descriptive and normative elements, that is, is more likely to create an actual bridge between blameworthiness and descriptive states of mind. As has been argued, blameworthiness cannot only be found in a descriptive abstract syllogism consisting of morally neutral cognitive and volitional components. Rather, the essence of blameworthiness lies in the agent's emotional attitude expressing his unconcern and disregard for the interests of other individuals.

On a closer view, my suggestion for this alternative, emotion-oriented conceptualization of culpability in light of the neuroscientific insights into emotions and moral decision-making hinges on a strict interpretation and application of the principle of personal guilt, which is the foundation of culpability in the vast majority of legal systems. The concept of personal guilt implies that a crime must *belong*, not only physically, but also mentally to its author. The *mental belonging* of a crime to its author equates to the mental adhesion of an individual to the commission of a criminal act. In other words, what makes an act criminally relevant - apart from causing harm- is the fact that an agent internally approves and decides to act in breach of legally protected values. This implies engaging in a moral type of judgment, where emotions and feelings are key components. The blameworthy essence of one's decision to act against legally protected values cannot only be found in neutral cognitive, and volitional states, but also, and more extensively, in the affective mechanisms that underlie and drive an individual's judgment to opt for immoral, rather than moral, conduct.

A strict interpretation of the principle of personal guilt, therefore, requires that culpability also encompass the agent's emotional attitude to engage in criminal behavior and violate legally protected values. In other words, emotion enters the notion of culpability as a way to bridge the mental gap between blameworthiness and personal

guilt, a gap given by criminal law's incomplete picture of the relevant mental ingredients featuring the practical moral reasoning that leads an agent up to a blameful choice. Furthermore, the addition of emotion to culpability would provide its notion with a greater humane facet, one which is at odds with the prevailing rationalistic legal view that has deprived human beings of their ethical features, and rendered them mere artificial constructs.

Admittedly, critics might object that a far-reaching morally-oriented understanding of culpability might lead to a purely subjectivist evaluation of criminal responsibility, because criminal responsibility would be mostly calibrated on the individual, rather than on the act, and the harm that was caused. This objection is easy to overcome. Endorsing a more subjectivist understanding of culpability hinging on emotion is not tantamount to denying the primary relevance of the material act, but simply intensifies the subjective inquiry into the effective blameworthiness of the individual. Apart from the harm caused - which remains the central standard to bear liability - criminalization also needs to comprehend a deep inquiry into the agent's inner attitude and motivation that led him to offend. As culpability forms the subjective dimension of the offense, its notion needs to capture the individual's effective blameworthiness, an aspect that a cognition-based account is not able to grasp.

## V. CONCLUDING THOUGHTS

The rationalist model of culpability proves to be seriously challenged when measured against the neuroscientific account of moral decision-making processes and antisocial behavior. The view of the ideal culpable agent as a cold, intellect-governed rational actor proves flawed, for it fails to consider other crucial factors, i.e. emotions and feelings, that may either inform, or hinder, moral judgments, and therefore inhibit, or lead to, antisocial behavior.

This Chapter has attempted to incorporate neuroscientific insights into emotions and moral decision-making in the relevant mental substance of culpability, and thus provide an emotion-oriented conception of culpability. Drawing upon neuroscientific teachings,

the Chapter first corrected flawed assumptions about the mental conditions necessary for engaging in practical reasoning and decision-making in moral contexts.

First and foremost, it argued that criminal law should not disregard emotions, for emotions are crucial components of moral decision-making processes, and thus of the practical moral reasoning leading up to culpable choices, and behavior. Second, it argued that cognitive intelligence alone cannot give rise to either moral or immoral decisions, and behavior. Rather, cognitive intelligence leads to (im)moral decisions, and behavior, only when it is coupled with emotion. Third, it argued that volition - *qua* faculty of choosing a given course of conduct while controlling impulses - does not rely upon cognitive intelligence, nor upon cognitive faculties (i.e., knowledge, or understanding). On the contrary, volitional processes are associated with a specific circuit in which emotional and cognitive functions interact, and are equally critical in inducing one's moral choice in response to a given stimulus, as well as in regulating behavioral responses while holding back impulses. Importantly, the good, or bad, functioning of the circuit in charge with volitional processes does not depend on one's prior knowledge of the significance of his actions. Therefore, one may well be cognitively aware of the factual and moral significance of his actions, but still experience poor judgments and impaired choice-making.

In view of these conceptual revisions, the Chapter turned to emphasize that criminal law should reconsider its view that cognitive intelligence is the only mental source of the faculties necessary to engage in either law-abiding or criminal decisions. More specifically, the Chapter outlined that cognitive intelligence cannot form the sole substance of the Legally Relevant Mind. It therefore argued for enriching the core substance of the Legally Relevant Mind with the addition of further mental spheres, notably the emotional, and the volitional spheres. The emotional sphere will be responsible for a culpable agent's feeling of the moral significance of engaging in criminal wrongdoing, and violating the interests of other individuals; the volitional sphere, which comes to be understood as an autonomous sphere compared to cognitive intelligence, will be responsible for the culpable agent's willful choice to engage in antisocial conduct, as well as for his capacity for self-control; the cognitive sphere will be responsible for both an individual's factual and his moral knowledge, or understanding, of his conduct.

Therefore, the culpable agent is no longer a calculating, intelligent actor who simply acts for bad reasons without any significant emotional involvement. On the contrary, the culpable agent is one who acts while being influenced and driven by his emotional feelings that made him judge it appropriate to engage in antisocial conduct and violate the interests of other individuals, who knows what morally and factually means to engage in that antisocial conduct, and who chooses to not resist his antisocial impulses, thereby engaging in that antisocial conduct.

According to the new model of the Legally Relevant Mind, **rationality in criminal law** holds a **threefold** substance, featuring all culpability notions:

- A) **Affective:** Capacity for feeling the moral significance of criminal wrongdoing/ Moral emotional attitude to engage in criminal wrongdoing;
- C) **Cognitive:** Capacity for understanding/ Awareness of the criminal wrongdoing;
- D) **Conative:** Capacity for self-control/ Choice for criminal wrongdoing

**Fig. 1:** Outline of a three-dimensional model of the Legally Relevant Mind

Based on this reconceptualized understanding of the Legally Relevant Mind, and thus of the mental conditions of legal rationality featuring the ideal culpable agent, the Chapter offered an argument for including emotion as a third dimension to a general theory of culpability. More specifically, it argued that emotion should enter the notion of culpability as a faculty that bridges the gap between descriptive states of mind and moral blameworthiness.

As has been made plain, culpability expresses an individual's attitude of unconcern, or disregard, for the interests of other individuals. This attitude is allegedly expressed through his states of mind at the time of the crime. Criminal law reduces the existence of this attitude of disregard - and thus of blameworthiness - to cognition-based, descriptive, and morally neutral states of mind, which allegedly form the mechanics of

an individual's practical moral reasoning leading up to culpable choices. However, as has been noted, this understanding of practical moral reasoning turns out to be abstract and individualistic, for it fails to consider that the mechanics underlying one's practical reasoning leading up to moral types of decision, such as criminal decisions, are different from those underlying practical reasoning leading up to nonmoral types of decisions, like decisions made in everyday life. As neuroscience teaches, to really understand moral and antisocial decisions, and behaviors, one cannot disregard the emotional mechanisms that move and motivate an individual to act in compliance with or in breach of the interests of other individuals.

Of course, to argue that cognitive powers are sometimes of limited importance in relation to culpability is not, however, to argue that they are utterly irrelevant. I am simply arguing that the assessment of one's lack of concern for the interests of other individuals based on cognitive powers is not determinative where the issue of culpability is concerned. To adhere exclusively to orthodox rationalism is to suppose that people always act in accordance with rational principles, such as reasoning instrumentally about the consequences of their actions, and then choosing accordingly. Neuroscience teaches that emotionally-cold instrumental reasoning cannot lead neither to moral nor to antisocial conduct, precisely because it is a feature of (moral) emotions taking precedence over or displacing cognitive considerations in practical reasoning, leading to or inhibiting wrongdoing.

Endorsing the acceptance of an expanded conception of culpability, inclusive of emotional factors, in the light of neuroscience is not tantamount to denying the axiologically informed meaning of criminal responsibility. Culpability or blameworthiness are not neuroscientific concepts, nor can they be localized in certain neural patterns. Yet these concepts are referred to describe individuals that decide, deliberate, and choose to act in breach of relevant legal values. Brain (and behavioral) sciences can tell us something more about the dynamics that lead an individual to act antisocially and unlawfully, and criminal law should consider this knowledge.

Although the empiricism of science cannot replace the normative character of criminal law, science is still apt to correct flawed folk-psychological assumptions about human behavior that underlie legal standards, through a different, although counterintuitive, explanation of decision-making processes in both law-abiding and antisocial subjects. In other words, if criminal law is meant to treat individuals not only for what they do, but also for who they are, it should start refraining from relying upon an excessive formalization of human thought, and stop hiding behind a fake personalism.

Apart from being scientifically accurate, this emotion-oriented notion of culpability would also have significantly positive effects at the normative level. On the one hand, an expanded conception of culpability - one which is inclusive of all mental elements that actually contribute to moral decision-making processes- would be more consistent with the principle of personal guilt than the traditional conception actually is. In fact, a notion of culpability that also takes into consideration emotional aspects of moral decision-making processes would more profoundly echo one's *actual* blameworthiness at the time of the crime. In a nutshell, emotion bridges the gap between culpability, blameworthiness, and personal guilt.

Therefore, the central argument for including emotion as a third dimension of culpability, and thus of culpability notions, is precisely that emotions are quintessential to truly capture an individual's attitude of disregard for legally protected values. A notion of culpability inclusive of emotions would be able to embrace all the actual, relevant mechanics of an individual's practical reasoning and decision-making conditions in criminal offending. Such a notion of culpability better grasps the actual blameworthiness of an individual's state of mind at the time of the crime, for it would look at his lack of concern and disregard for the interests of other individuals.

On the other hand - although this consideration sets the stage for further and ampler discussions that go beyond the scope of this thesis- an expanded notion of culpability would also be in greater compliance with the principles of punishment. As is very well known, culpability functions as a standard for assessing the moral desert of the offender. In fact, by acknowledging that culpability must be evaluated by also considering the affective aspects underpinning the decision to commit a relevant offence, then sentencing would come to rest on a deeper inquiry into a defendant's actual state of mind at the time of the crime. It would not only, or mostly, reflect the seriousness of the

harm caused. This would clearly permit a fairer determination of punishment based on actual just desert.

All things considered, the emotion-oriented conception of culpability proposed here would at the same time be empirically correct and normatively desirable. Human beings need not be depicted so narrowly, because a multitude of factors are fundamental to determine their decisions, their choices, and, finally, their actions, especially in moral contexts. In other words, a better understanding of moral decision-making based on a comprehensive framework that takes into greater consideration emotional processes can only improve our understanding of the criminal mind so as to more accurately evaluate criminal behavior.

Having revised the substance of the Legally Relevant Mind underlying the paradigm of the culpable agent, and thus reconceptualized the general notion of culpability with neuroscience, it is now necessary to assess how this alternative conception might affect the substance of its related doctrines. In fact, an emotion-oriented model of culpability, based on an expanded model of the Legally Relevant Mind, might well lead to rethinking the substance and the formulation of rules and standards concerning culpability doctrines, such as insanity, or that of diminished capacity, as well as to a better understanding and definition of the substance of *mens rea* states. In other words, if we enrich the core substance of the Legally Relevant Mind with emotion, would the intellect-based tests contained in insanity standards - as they are provided for in the large majority of legal systems- suffice in light of the neuroscientific explanations of emotional and volitional processes? What could be the implications for the diminished capacity doctrine? Could we adapt an emotion-oriented model of the Legally Relevant Mind to the legal notion of 'criminal intent'? All these issues form the subject of Part Two, Chapters Four and Five, where I will test this alternative emotion-oriented conception of culpability in light of moral neuroscience on selected culpability doctrines.



## Part Two

### Testing the Developed Emotion-oriented Theory of Culpability on Legal Doctrines: Criminal Intent, Insanity, and Diminished Capacity as Cases Studies

#### Abstract

*This Part tests the developed emotion-oriented conception of culpability in the light of neuroscience against selected culpability doctrines, namely the mens rea state of criminal intent, insanity, and diminished capacity doctrines. The aim is to illustrate how culpability doctrines might concretely change if their legally relevant substance is integrated with emotions and affective states. Chapter Four explores how an emotion-oriented theory of culpability might impact mens rea. More specifically, it shows that the application of an emotion-oriented understanding of culpability to mens rea states would provoke the expansion of their relevant psychological set, which would come to also include the emotional feelings that move an actor to engage in unlawful conduct. In other words, while current descriptions of mens rea states are based on the fusion of a certain degree of awareness (cognitive element) and willingness (volitional element) to engage in criminal conduct, an emotion-based conception of mens rea would also imply the inclusion of affective states that moved an actor to engage in criminal behavior, as a third mental component. To illustrate how the developed theory of culpability based on neuroscience might actually impact mens rea, the Chapter turns to an analysis of the re-conceptualization of the mens rea state of criminal intent (dolus) by including emotions in its relevant psychological set. The premise of the argument developed here is that the descriptive structure and rationalist substance of intent - which by and large includes the agent's knowledge and willingness to do social harm- is limited when measured against the scientific insights into emotions and moral judgments, and with the newly developed conception of culpability as a consequence. In other words, criminal intent cannot be depicted as narrowly as the conscious will of the offence. The Chapter therefore provides a notion of intent that is in line with the new conception of culpability, by integrating emotions in the relevant psychological set of intent with the consequent inclusion of moral elements in its conceptual structure, as well as the reconsideration of the role of motivation. Chapter Five interfaces the developed theory of culpability with substantial capacity doctrines, namely insanity and - only for the common law systems- diminished capacity doctrines. After highlighting the*

*inaccuracies inherent in current insanity standards when measured against a scientifically-developed understanding of moral decision-making and thus with the new understanding of culpability, the Chapter argues that insanity tests should (re)consider the relevance of the emotional factor. More specifically, emotional capacity should be treated as autonomous with respect to cognitive capacity, and recognized as a crucial component of volitional capacity. Consequently, the Chapter advocates for an explicit tripartite test for the insanity defense, and addresses possible corollaries that might arise. In particular, the Chapter discusses the redefinition of the boundaries of the legally relevant mental illness, with particular reference to borderline groups of criminals - e.g., those suffering from socioaffective and control disorders - whose conditions are characterized by cognitive integrity and emotional abnormality.*

## Chapter Four

### Reconceiving Emotions in *Mens Rea*: Criminal Intent (*dolus*) as a case study

*“Where Id was, there Ego shall be.”*  
Sigmund Freud

#### I. INTRODUCTION: MAKING AFFECTIVE STATES ESSENTIAL COMPONENTS OF LEGALLY REQUIRED MENTAL STATES

The aim of this Chapter is to provide a preliminary idea of how the neuroscientifically-informed theory of culpability that has been developed in Part One, might be implemented at the *mens rea* level. It will do so by reconceptualizing the *mens rea* state of criminal intent (*dolus*) through the inclusion of emotions and feelings in its relevant substance.

To recap, in Part One I proposed a threefold model of the Legally Relevant Mind, one which includes affective, cognitive, and volitional mental spheres. First, I argued that the law should treat emotion as a *mental source* - together with cognitive intelligence and volition- of the legally relevant faculties that are part of culpability, and thus of culpability doctrines. Second, I argued that the law should include emotions among the legally relevant faculties - i.e., cognitive and volitional- underlying culpability, and culpability doctrines. Based on this revised model of the Legally Relevant Mind, and thus of the ideal culpable agent, I reconceptualized the notion of culpability. According to the new version, culpability is not grounded in rationalist thinking and abstract practical reasoning. On the contrary, the newly conceived notion of culpability also

encompasses the affective quality of the decision-making processes leading an individual up to make criminal choices.

This Chapter will precisely seek to apply and adapt said emotion-oriented theory of culpability to *mens rea*, by using criminal intent as a case study. In so doing, the Chapter will assess what role emotion may play within *mens rea*, as well as how the reconceptualized role of emotion in culpability can be translated in the language of *mens rea* states.

In its elemental meaning, *mens rea* forms the subjective element of criminal liability. Criminal liability requires that a criminal act (*actus reus*) is committed with a state of mind, as is described by the relevant legal provision. Legally required states of mind are better known as legal mental states or *mens rea* states - e.g., intent, recklessness, negligence. Traditionally, the substance of *mens rea* states is made up of the fusion of the elementary functions of cognition and volition.<sup>1</sup> By looking at the *mens rea* vocabulary, cognition is generally expressed in terms of one's consciousness - i.e., awareness, knowledge, foresight, belief etc.- to engage in given conduct and cause social harm as a consequence, while volition is generally translated with one's will - either explicit or implicit- to act unlawfully and, possibly, cause social harm.

Although in different degrees and intensity, consciousness and will form the essential components of each *mens rea* state. For instance, the legal notion of (criminal) intent requires that the actor is both maximally aware and willing to carry out a given course of conduct leading up to social harm. On the contrary, the mental state of recklessness, typical of common law systems, includes both the actor's cognitive awareness of the substantial risk that his conduct may cause social harm, and his volitional attitude to create a risk of harm - although the actor does not want to do harm. As can be noted, while the cognitive component (awareness) is very high, the volitional one is much lower compared to that required to meet the criteria of criminal intent.

No description of the essential psychological set of any *mens rea* state also encompasses emotional components. At the *mens rea* level, emotions are usually treated as nothing more nor less than satellite circumstances that are external to legal mental states, and that may either increase or decrease the seriousness of the offence as a

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<sup>1</sup> See Part One, Chapter One, Sections II & IV.

whole. However, emotions do not have an impact on the existence of *mens rea*. In other words, an actor's *mens rea* will exist regardless of the emotional feelings that moved him to decide to engage in given conduct, and possibly do harm.

The application of the revised model of the Legally Relevant Mind, and thus of the mental foundations of the general notion of culpability, to *mens rea* may well change this traditional perspective. If emotions are necessarily integral components of the relevant substance of culpability, then a conceptualization of *mens rea* that is consistent with the reconceived notion of culpability cannot but include emotional components in its relevant set. In other words, by implementing the new version of culpability, emotion inevitably becomes the third prong of *mens rea*, and thus of *mens rea* states, no less than cognition and volition.

That said, it is now necessary to see how criminal law could conceptualize emotion within *mens rea* states. Taking a step back, the revised notion of culpability accepts an evaluative conception of emotions *quibus* fundamental action-initiators and behavior-motivators that considerably influence the substance of cognitive states, as well as the quality of volitional processes. As a consequence, the practical reasoning leading up to a "culpable decision" is no longer viewed as an abstract syllogism "I know- I want- I do". Rather, it also includes a prior "feel" component, and therefore encompasses the emotional processes leading an actor to opt for a criminal, rather than a law-abiding, decision.

The incorporation of this new perspective in the *mens rea* doctrine logically implies that the "consciousness and will" components of the legal mental states be supplemented by the quality of an actor's emotional feeling leading to his decision to engage in given conduct and, possibly, to do harm. Put differently, *the quality of the feeling moving an actor to act against relevant legally protected value* would be included in the essential set of *mens rea* states in addition to cognitive and volitional elements. It follows that *mens rea* assessments would not only require if, or how much, an actor was aware and/or willing to engage in unlawful conduct - and, possibly, do harm- but also what kind of emotional feeling moved, and thus motivated, his decision.

The inclusion of emotional components in *mens rea* would specify further the substance of each mental state, thereby allowing for more accurate conceptualizations and evaluations. First, the addition of emotions in the essence of *mens rea* could allow

for better clear-cut distinctions among different legally required states.<sup>2</sup> Second, the inclusion of emotions could alter the practical boundaries of each *mens rea* state. One possible corollary is that criminal actions traditionally falling within the scope of a given mental state might well fall within the scope of another mental state according to new conceptualizations inclusive of emotional elements. Of course, these are just hypotheses that need very careful and detailed elaboration.

To provide an initial idea of how an emotion-oriented notion of culpability might impact *mens rea*, in this Chapter I shall illustrate the nature of my argument by using the *mens rea* state of criminal intent (*dolus*) as a case study.<sup>3</sup> More specifically, I will seek to provide a new paradigm of the *mens rea* state of criminal intent by including emotional elements in its conceptual and psychological set.

The central claim here developed is that the current, rationalist and descriptive, conception of criminal intent is both scientifically and legally flawed, and should be reconsidered. It is scientifically flawed, for it proves to be limited when measured against the neuroscientific insights into emotions and moral judgments that have been illustrated in Part One. It is legally flawed, for it does not match with the emotion-oriented notion of culpability that has been developed in accordance with said scientific insights.

In view of this, this Chapter argues that the current *corpus* of criminal intent should be enriched by adding further factors that co-determine decisional processes in moral contexts. It therefore attempts to make the notion of criminal intent more scientifically

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<sup>2</sup> The dividing line between different mental states, as they are traditionally described, can be very blurred. Suppose, for example, the following case: in the middle of a fight, John violently stabs Jim using a 16 cm blade knife, and wounds one of his lungs and the pericardium. Some minutes later, Jim dies. In theoretical terms, how should this case be judged under the *mens rea* requirement? *Prima facie*, John knowingly and intentionally stabbed Jim. However, it is not clear whether John really wanted Jim to die, nor is it clear whether he thought that one stab would have killed Jim. Did John act with intent or recklessly? Of course, descriptions of intent and recklessness are notably different. However, there can be cases - like the one in the example offered, that are naturalistically ascribable to intent, while normatively speaking they can be classified as recklessness - so that the factual distinction between these states can prove extremely difficult and contradictory. See Paul Robinson, 'Mens Rea', *Encyclopedia of Crime and Justice* (2002) 995, 1000 (noting that "reckless conduct can be elevated to purposeful conduct if only the person 'hopes' that the risk will come to fruition").

<sup>3</sup> This conceptual mechanism should be carefully elaborated for each *mens rea* state, in order to provide a complete revised model of *mens rea* based on the developed emotion-oriented conception of culpability. This complex, and long investigation - which will hopefully be conducted in future research- goes beyond the scope of this thesis. While providing a general theory of culpability based on neuroscience, the cases studies here analyzed are only meant to show how said theory can be concretely applied to and change single culpability doctrines.

sound and consistent with the new notion of culpability, by including emotional and affective states in its relevant legal-psychological substance. As a result of an expanded legal-psychological set, the conceptual substance of criminal intent will be enriched through the inclusion of the moral feeling of disregard for protected legal interests - in addition to the traditional conscious will to engage in criminal conduct - that moved the agent to consciously and willingly commit a relevant offence. In other words, it will be argued that a notion of criminal intent that is in line with the new conception of culpability should also include the feeling of malicious disregard for legally protected values in its legal description. A corollary of this new understanding of criminal intent is the reconsideration of the role of motives, which would move from being external elements to integral elements of the notion of criminal intent.

The Chapter is structured as follows. Section II traces the current conception of criminal intent (*dolus*) in Western legal culture. It begins with a brief historical analysis of the concept of intent in both continental European and Anglo-American systems. Section III delineates the current conception of criminal intent, as is ordinarily applied in modern legislations. Section III continues with an analysis of the rationalist assumptions underlying the psychological content of the conceptual components of criminal intent (Subsections A, B, C).

The Chapter then offers a criticism to the ordinary conception of intent, and proposes an alternative notion, one which is in line with the newly developed conception of culpability (Section IV). In line with the research findings on emotions and moral judgments illustrated in Part One, the Chapter discusses the inaccuracy of the orthodox rationalist notion of criminal intent, thereby supporting a broader conception, one which also encompasses emotional elements. More specifically, the Chapter argues for a different conceptualization of criminal intent based upon the integration of emotions in its relevant psychological set, with the consequent inclusion of moral emotional elements in its conceptual structure and a resulting reconsideration of the role of motivation.

A final clarification: this Chapter only considers an alternative understanding of criminal intent in *prima facie* culpability cases.

## II. HISTORY AND EVOLUTION OF CRIMINAL INTENT

Thought it is an oft-told tale, it may be convenient to offer a brief historical analysis of the use and interpretation of the *mens rea* state of criminal intent (*dolus*) in both continental European and Anglo-American laws. This historical-analytical outline will serve as a perspective within which discussion in subsequent sections can be oriented.

As history goes, the *mens rea* state of criminal intent (*dolus*) is considered to originate in Roman Law. The concept of intent appeared officially for the first time in the *Lex Cornelia de sicariis et veneficis* (81 b.C.), according to which a person had to commit a relevant crime *dolo malo* (with evil intention) for criminal responsibility to exist.<sup>4</sup> As of the *Lex Cornelia* until late Roman Empire, the notion of *dolus* was grounded in the concept of *animus* (i.e. “spirit”, “soul”), namely the actor’s inner attitude to cause social harm. Not only would criminal intent form the only type of *mens rea* state, but for criminal intent to be *malo* (evil), and hence to be legally relevant, it also had to be accompanied by the actor’s *animus* to violate legal, ethical and religious norms (*animus nocendi*).<sup>5</sup> In a nutshell, the legal mental state of criminal intent designated the *prava voluntas* (“evil will”) to act against social values.

The model of criminal intent as *prava voluntas* also remained central to the doctrine of *mens rea* in Medieval Law, especially by virtue of the strong influence of Christian theology and Canon Law.<sup>6</sup> In light of the teachings of canonists like S. Augustine,<sup>7</sup> the term criminal intent started to be employed to capture the notion that the moral content of behavior could not be assessed without attention to inner states. The medieval conception of criminal intent, and more in general that of *mens rea*, were entirely focused on the quality of the will. In this respect, the thirteenth-century churchman and judge Henry Bracton famously held that “it is will and purpose which mark *maleficia*

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<sup>4</sup> Gian Paolo Demuro, *Il dolo. Svolgimento storico del concetto* (Giuffrè 2007) 34-35.

<sup>5</sup> *id.* 51-69.

<sup>6</sup> See Robinson n. 2 (observing that several factors contributed to the influence of the Church on the development of intent, as well as *mens rea* in general. First, clerics were influential in the administration of government; second, the Church had its own courts, where new offenses were developed to put novel ideas about the importance of mental state into criminal law form).

<sup>7</sup> See Albert Levitt, ‘The origin of the doctrine of *mens rea*’ (1922) 7 *University of Illinois Law Review* 117 ([In S. Augustine’s words] “the evil motive makes the evil act; the good motive makes the act good”).

(crimes) and a crime is not committed unless the intention to injure exists”.<sup>8</sup> Paraphrasing Bracton’s words, it has been inferred that both bad motives and intentional acts were essential for criminal liability.<sup>9</sup> Therefore, criminal intent was conceived of as synonymous with “subjective wickedness, requiring not simply that the actor intend to commit the offense, but also that the offense be committed by a responsible moral agent for wicked purposes”.<sup>10</sup> In a similar vein, the early modern Italian criminalist Tiberio Deciani, in his *Tractatus Criminalis*, defined criminal intent as “*propositum ipsum et malus animus delinquendi*” (i.e., “an evil intention to commit an offence”).<sup>11</sup> Deciani describes criminal intent as the purpose to achieve a legally reprehensible result. This mental state is then *malus*, for its end is *contra ius*, and its result - the *actus reus* - offends a certain protected legal value.

The idea of *animus nocendi* as essence of criminal intent was gradually abandoned by the large majority of criminal law theorists as of the XVII and XVIII centuries. In Anglo-American systems, the original legal notion of criminal intent as “evil motive” was gradually transformed by a process that attempted to identify specific states of mind required for the commission of particular offenses.<sup>12</sup> At the time of Edward Coke, the “evil motive” requirement was eventually replaced by “mere intention” to commit an offence. In other words, the general *mens rea* question became whether or not the offender possessed one of the legally relevant states of mind (*mentales reaes*), not whether he deserved blame for his immoral motives. As a consequence, the notion of criminal intent, like that of all other *mens rea* states (e.g. negligence), lost any moral feature, and took on a purely descriptive dimension.

In continental Europe, the abandonment of the original understanding of criminal intent (*dolus*) was marked by the principles of the Enlightenment. In the name of greater rationalization of criminal law, which was largely supported by authors like Charles-

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<sup>8</sup> Henry D. Bracton, *On the laws and customs of England*, George Woodbine (ed), Samuel E. Thorne (transl) (first published in 1307, Harvard University Press 1968) 290.

<sup>9</sup> See, e.g., Martin R. Gardner, ‘The *mens rea* enigma: Observations of the role of motive in the criminal law past and present’ (1993) *Utah Law Review* 635, 658 (arguing that Bracton’s references to will and purpose in addition to intent “support the conclusion that not only must an offender’s acts be intended but his ulterior motives and purposes in acting must be also blameworthy”).

<sup>10</sup> *id.*

<sup>11</sup> Tiberio Deciani, *Tractatus criminalis D. Tiberi Deciani utinensis* (Venetiis, 1590) T.I 4.9.

<sup>12</sup> Descriptions of intentional *mens rea* state varied from case to case and from offenses to offenses, and terms like “scienter,” “wilfully,” “wantonly,” “wilful neglect,” “wanton and wilful,” “specific intent,” “general intent,” were employed interchangeably.

Louis Montesquieu and Cesare Beccaria, the doctrine of *mens rea* was deprived of any moral feature, and became more focused on the objective element of criminal responsibility, namely the material offence.<sup>13</sup> For an offence to exist, it just had to be the result of the actor's consciousness and will, i.e. it had to be committed freely and spontaneously. An actor was supposed to have some cognition of reality, and his intellectual powers were supposed to enable him to know right from wrong. This intellectual knowledge was thought to enable a person to freely exercise his powers of choice by orienting his mind toward a specific act.<sup>14</sup>

The influence of the Enlightenment on the doctrine of *mens rea*, and notably on the notion of criminal intent, persisted during the XIX century. Criminal intent (*dolus*) became entirely grounded in the pure conscious and willed choice to cause harm on purpose, regardless of any moral element, conscience or *animus* shown by the wrongdoer. For instance, Francesco Carrara, one of the major exponents of the Classical School<sup>15</sup> of criminal law in Europe, defined criminal intent as simply as *intelligent will*, meaning the fusion of the concurrence of intellect and volition leading to one's choice to do harm.<sup>16</sup>

Likewise, on the Anglo-American side, the assumptions underlying a secularized notion of intent are crystallized in Justice Holmes' famous 1881 manuscript, "The Common Law". As Holmes put it:

"[T]he purpose of the criminal law is only to induce external conformity to rule. [...] So far from its being true, as is often assumed, that the condition of a man's heart or conscience ought to be [...] considered in determining criminal [...] liability, it might almost be said that it is the very opposite of truth. [...] It is not intended to deny that criminal liability [...] is founded on blameworthiness. [...] It is only intended to point out that, when we are dealing with that part of the law which aims more directly than any other at establishing standards of conduct, we should expect there more than elsewhere to

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<sup>13</sup> Beccaria, for example, firmly rejected the subjectivist conception of intent adopted by Roman Law, as well as the idea that intent could be used as a parameter to ground criminal responsibility. See Cesare Beccaria, *Dei delitti e delle pene* (first published in 1764, Mursia 1973), ch 7.

<sup>14</sup> See Demuro n. 4, 187.

<sup>15</sup> See Part One, Chapter One, Section III.

<sup>16</sup> See Francesco Carrara, *Programma del corso di diritto criminale. Parte Generale I. Del delitto, della pena*, Franco Bricola (ed) (first published in 1886, 6th edn, Il Mulino 1993) 59.

find that the tests of liability are external, and independent of the degree of evil in the particular person's motives or intentions. [...]”<sup>17</sup>

As this brief analysis shows, the historical evolution of the concept of criminal intent has followed similar paths - despite they have evolved in different ways- in both common law and civil law systems. It is noteworthy that the secular conception of criminal intent that was adopted between the XVIII-XIX centuries has largely influenced both subsequent criminal law theories and modern legislations. Today, the dominant conception of criminal intent (or *dolus*) fully embraces an objectivist and rationalist understanding of human behavior. The essence of criminal intent lies solely in the conscious will to commit an offence, any further aspect of decision-making being mostly irrelevant. Let us now turn to the analysis of the current conceptual structure and, in particular, of the psychological components that lie behind this legally relevant state of mind.

### III. THE RATIONALIST STRUCTURE AND SUBSTANCE OF CRIMINAL INTENT

This Section briefly canvasses the traditional conception of criminal intent in Western legal traditions. It will not explore any single issue surrounding the concept of criminal intent. It will only consider the conceptual and psychological features that will be contrasted with the new conception of culpability based on neuroscientific insights into emotions and moral decision-making.

Criminal intent forms the most severe *mens rea* state. In an encompassing approach, criminal intent can be defined as the conscious will to engage in given (unlawful) conduct and cause social harm, *quibus* material elements of relevant offences described by a relevant legal provision. The legal-psychological substance of criminal intent is clearly intellectualist, in the sense that it only embraces cognitive states of decisions - i.e. instrumental thinking- and rules out any relevance to moral and emotional factors.

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<sup>17</sup> Oliver Wendell Holmes, Jr, *The Common Law* (first published in 1881, Dover Publications 1991) 49-50.

As will be argued later on, this rationalist and descriptive understanding of criminal intent does not entirely match neither with neuroscientific insights into moral judgments and antisocial behavior, nor with the newly conceived conception of culpability. Its substance should, therefore, be reconceived.

#### A. Criminal intent as the conscious will of the offence: Conceptual Structure

Under the traditional conception, criminal intent (*dolus*) indicates “the conscious and voluntary commission of an unlawful act without justification or excuse”.<sup>18</sup> By and large, for intent to exist, it is necessary for an individual to consciously and willingly engage in prohibited conduct, with consequent social harm. In other words, the essence of criminal intent lies in an individual’s positive decision or choice to commit a certain crime. The distinguishing characteristic of criminal intent therefore is the choosing to do harm coupled with the foresight that harm will result from one's actions.

Granted, while the essential idea of criminal intent is largely shared by the vast majority of Western legal traditions, its legal description varies depending on different legal systems.<sup>19</sup> Nevertheless, since this Chapter aims to re-conceptualize the core substance of this legal mental state, it will employ a common definition of criminal intent - one which fits in all Western legal systems where this legal mental state applies.

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<sup>18</sup> Victoria Foster & Charlotte Rohan, ‘Intent in the criminal law’ (1946-1947) 12(2) *Law&Society Journal* 138.

<sup>19</sup> For example, the model of intent contained in the US Model Penal Code, Section 2.02 (2) (a) takes on a pure end-seeking meaning. Here intent is understood as the purpose, or the conscious object either to cause the prohibited result, or to engage in the prohibited conduct. In other words, an actor undertakes his action either intending, or hoping that, a certain result will follow. On the contrary, in English, as well as in Australian and Canadian laws, the notion of intent only includes an individual’s awareness/ foresight/ knowledge that his conduct might - with virtual certainty or high probability - result in a given crime. In continental European systems, the notion of intent (better known as *dolus*) is twofold as its description generally requires actual awareness/knowledge and will to commit an offence. For instance, Art. 43, par. 1, CP [Ita] reads: “A crime is ‘doloso’, or committed with intention, when the agent foresees and wills a certain harmful or dangerous event to occur [...] as a result of his action or omission (transl.: “Un delitto è doloso, o secondo l’intenzione, quando l’evento dannoso o pericoloso [...] è preveduto e voluto dall’agente come conseguenza della sua azione o omissione”). In Spain, for example, intent (*dolo*) is integrated when the agent “*sabe lo que hace y quiere hacerlo*”; see Jose Maria Rodriguez Devesa, *Derecho penal espanol* (Dykinson 1990), 459. Similarly, the prevailing Portuguese doctrine conceptualizes intent (*dolo*) as “*conhecimento e vontade de realizacao do tipo objectivo de ilicito*”; see Jorge De Figueireido Dias, *Direito penal. Parte general* (Coimbra Editora 2007), 348. It is the same in Belgium and in France, where the ‘intention coupable’ or ‘dol’ is composed of ‘*connaissance et volonté*’; as for Belgium, see Christiane Hennau & Jaques Verhaegen, *Droit pénal général* (Bruylant 2003), 320; as for France, see Jean Pradel, *Droit pénal général* (2000/2001 edn, Cujas 2000), 437-438.

By combining the various descriptions and interpretations of criminal intent adopted by different jurisdictions - and without considering the different degrees and species-<sup>20</sup> a comprehensive notion of intent could read as follows: *a person acts with criminal intent (dolus) when he knows - with virtual probability or certainty- and wills that a social harm result from his conduct.* The knowledge requirement may be defined as the *overall consciousness, or awareness, of the essential elements of the offence as described by the legal provision.* The will requirement may be defined as the *choice, or the positive decision, to violate a relevant protected legal value.*

Criminal intent is an *elemental* psychological state, as it refers to all material elements - i.e. prohibited conduct, social harm, and attendant circumstances- of the relevant crime, as they are described by a given legal provision.<sup>21</sup> As Hart puts it, criminal intent includes three distinguishable components: (i) movement or movements of the part of the body made by the agent in a certain physical environment [i.e., the conduct]; (ii) the consequences or upshot, usually of a harmful kind, resulting from these movements; and (iii) a reference to some special setting of circumstances.<sup>22</sup>

Importantly, this culpable state of mind is not supposed to also encompass the unlawfulness<sup>23</sup> or immorality of the prohibited conduct, or the offence in general. As Morse and Hoffman observe, “[...] intent does not require any level of commitment to the agent's goal or any degree of moral evaluation. Intent simply means that the agent did something on purpose”.<sup>24</sup> Therefore, criminal intent can just as readily be viewed as *morally neutral.*

To sum up, criminal intent designates the conscious will to commit an offence. By and large, in the vast majority of Western legal systems, for criminal intent to exist, it is necessary that an actor consciously and willingly engages in prohibited conduct, and

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<sup>20</sup> I am referring to the various types of intent as they are generally classified in continental European systems (e.g., *dolus intentionalis*, *dolus eventualis*, *dolus impetus*, etc.), as well as to the distinction between specific and generic intent, as is vastly adopted by Anglo-American systems.

<sup>21</sup> See, e.g., Model Penal Code, Section 2.01 (1) (1962).

<sup>22</sup> H.L.A. Hart, *Punishment and responsibility: Essay in the philosophy of law* (Clarendon Press 1968), 119.

<sup>23</sup> The inclusion of the “unlawfulness of the act” in the object of intent would be in sharp contrast with the dogmatic maxim “*ignorantia legis neminem excusat*”.

<sup>24</sup> Stephen J. Morse & Morris Hoffman, ‘The uneasy entente between insanity and *mens rea*: Beyond Clark v. Arizona’ (2007) 97(4) *Journal of Criminal Law and Criminology* 1071.

causes consequent social harm. Let us now canvass the (folk) psychological assumptions that undergird its conceptual substance.

B. Intelligence and will:  
The relevant psychological set of criminal intent

The descriptive conceptual structure of criminal intent is coherent with its rationalist legal-psychological substance. More specifically, the relevant psychological set of criminal intent encompasses exclusively the cognitive and the volitional faculties. The reason for this is that cognition and volition are symptomatic of what the law considers to be “the ultimate functions of personality: thinking and willing”.<sup>25</sup> From this rationalist perspective, human beings are supposed to be able, by virtue of their intellectual powers, to be conscious of the materiality and the consequences of their actions, and to orient their choices towards a certain object by virtue of the power of the will.<sup>26</sup>

As Pedrazzi puts it, for instance, the intellectual sphere of criminal intent serves as a rational filter without which there cannot be a conscious decision, but just a mere blind impulse.<sup>27</sup> Despite acknowledging the potential limits of his approach, Pedrazzi contends that only a profoundly rationalist understanding of intent, based on robust intellectual grounds, aligns with an act-based conception of criminal responsibility.<sup>28</sup> Likewise, Pulitanò claims that the notion of criminal intent is filled with a pure rational (i.e., intellectual) content, for only intellect enables one to know reality, as well as to foresee the potential consequences of one’s conduct.<sup>29</sup>

The volitional prong of criminal intent is interpreted differently by criminal law theorists. One, most straightforward, interpretation of the “will” requirement is purely

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<sup>25</sup> Jerome Hall, *General principles of criminal law* (The Bobbs-Merrill Company 1960), 105.

<sup>26</sup> This conception derives from the afore-illustrated (post)Enlightenment rationalist understanding of human thought, which emphasizes the role of intellect. See Part One, Chapter One, Section III.

<sup>27</sup> Cesare Pedrazzi, ‘Tramonto del dolo?’, (2000) 4 *Rivista Italiana di Diritto e Procedura Penale* 1265, 1267 (“Il momento intellettuale del dolo si propone quale [...] filtro razionale senza cui non può aversi un volere consapevolmente indirizzato, ma solo un impulso cieco, atto a fare affiorare gli strati profondi della psiche”).

<sup>28</sup> *id.*

<sup>29</sup> See Domenico Pulitanò, *Diritto penale* (5th edn, Giappichelli 2013) 310.

teleological: the actor holds the purpose, the conscious object, or hope to engage in unlawful conduct and/or cause social harm.<sup>30</sup> Overall, the volitional prong is understood as pure intentionality to achieve a certain result. According to a different interpretation,<sup>31</sup> the volitional prong of criminal intent takes on a broader meaning. It not only comprises the actual will to achieve a certain goal (i.e. to do harm), but it may also consist of a tacit acceptance that certain conduct might cause social harm. Put this way, the volitional prong of criminal intent designates the overall direction of the self toward a given object. The core lies in the decision or choice - either explicit or implicit - to act against a specific legal value.

Although the volitional prong is considered to form the real essence of criminal intent, multiple efforts by criminal law theorists to accurately define its psychological content have started to fail in the face of an increasing lack of psychological studies on volitional processes.<sup>32</sup> The *mens rea* state of intent has implicitly shifted from a naturalistic to a *de facto* formalistic dimension.<sup>33</sup> Consequently, the proof of criminal intent has gradually become something objective and presumptive, despite the fact that it should be defined, and hence assessed, as much as possible in all its empirical/psychological consistency.

### C. The irrelevance of motives and affective states

The legal description of criminal intent as the conscious will to commit an offence is clearly “objectivist”. That is, criminal intent is grounded in a bi-dimensional understanding of culpability, one which is expressed only in terms of cognition, i.e., actual awareness of wrongdoing, and thus of volition, i.e., the choice to do harm. The objectivist essence of criminal intent is also implied by the exclusion of both motives

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<sup>30</sup> This interpretation is mostly adopted in Anglo-American systems.

<sup>31</sup> This broader interpretation of the volitional prong of intent is mostly adopted in continental European systems, as well as in some common law systems, like South Africa. In these legal systems, if it is proven that an actor was aware of a risk, which realization he accepted and in fact occurred, he can be liable for indirectly intending (willing) to commit a given offence. In other words, foreseen and wanted consequences are equated. In these cases, an actor is liable for acting either with *dolus directus* or with *dolus eventualis*.

<sup>32</sup> Giovanni Fiandaca & Enzo Musco, *Diritto penale. Parte generale* (6th. edn, Zanichelli 2008) 355.

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

and emotional states from the conceptual and psychological substance of this legal mental state. It is well known that motivational analysis is out of place in determining whether an accused possessed the *mens rea* necessary for *prima facie* criminal liability.<sup>34</sup> Overall, for an offence to exist, it is sufficient that the wrongdoer engaged in unlawful conduct with a legally described state of mind. Whether he did or did not have motive to act cannot affect his responsibility in any way.

Criminal intent and motive are conceptually different, and thus do not overlap.<sup>35</sup> In fact, while intent forms the objective decision to engage in certain conduct, motive is the reason or ground on which the decision to engage in that conduct is made. According to the ordinary conception, then, motives cannot be relevant to criminal responsibility, as “motives *explain why* a person acted, while intent *describes what* action was performed”.<sup>36</sup>

The rationale underlying the alleged irrelevance of motive to the conceptual substance of criminal intent, and thus *prima facie* culpability, lies in the act-based conception of criminal liability, which is considered to revolve around the offence, not the wrongdoer. Therefore, the intent to cause social harm is not more or less “intentional” simply because the actor’s motive was extremely evil or not evil at all.<sup>37</sup> In other words, a

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<sup>34</sup> See Hall n. 25, 88 (“Hardly any part of penal law is more definitely settled that motive is irrelevant to criminal liability”).

<sup>35</sup> Elaine M. Chiu, ‘The Challenge of Motive in the Criminal Law’ (2005) 8(2) Buffalo Criminal Law Review 653, 664 (“This is an interesting juxtaposition because while both motive and intent refer to mental states, one has been deemed irrelevant to criminal liability while the other is central to it.”).

<sup>36</sup> Douglas Husak, *The philosophy of criminal law* (Oxford University Press 2010), 58.

<sup>37</sup> Of course, motives are not utterly irrelevant. In Anglo-American systems, even if motives cannot bear criminal liability, they can still affect sentencing. See *id.*, 53 (“Modern penal codes typically identify only four culpable states [...] that are relevant to the defendant’s liability. All other ‘mentalist factors’ that bear on his blameworthiness are consigned to the sentencing stage”). In exceptional cases, however, a defendant’s motive can also be indirectly relevant to responsibility. See Joshua Dressler, *Understanding criminal law* (4th edn, LexisNexis 2006) 131 (arguing that specific intent crimes “by definition require proof of a specific motive). Cf. Robinson n. 2, 999 (“While Model Penal Code treats a person’s motive as irrelevant, the requirement of purpose is essentially a requirement that a person have a particular motive for acting, albeit a narrowly defined motive. However, the requirement does not make motive generally relevant, but only asks whether a particular motive was present”). Alternatively, in civil law systems, when considering an offence, motives generally count as mitigating or exacerbating circumstances to be considered for sentencing, but in no case can motives establish, gradate or exclude *prima facie* responsibility. In Italy, for instance, not only can motives be relevant as mitigating or exacerbating circumstances, but they can also serve as indicators of the defendant’s criminal capacity (*capacità a delinquere*). As for the former, motives consist of the objective reasons that led the defendant to commit the offence. As such, motives affect the intensity of the overall disvalue of the offence, and therefore have a bearing on sentencing. As for exacerbating circumstances, one can conjure up “despicable or futile motives” (*motivi abietti o futili*) as provided by Art. 61 n. 1 CP [Ita]; as for mitigating circumstances, one can conjure up “particular social and moral value-laden motives” (*motivi di particolare valore morale e*

woman who kills her beloved, terminally ill husband to end his pain acts for a potentially good motive, but her killing is not less intentional than a killing committed for racist reasons.

The general exclusion of motives from the components of criminal intent becomes even more glaring if one considers the total irrelevance of affective and emotional states within the legal-psychological substance of criminal intent. Emotional components are unrelated to the typical substance of criminal intent. For criminal intent to be recognized, one only needs to look at the actor's conscious will to engage in prohibited conduct, and it is irrelevant that the actor enjoys, does not care, or highly dislikes the occurrence of social harm.<sup>38</sup> Therefore, the decision to act unlawfully does not require any prior emotional evaluation of the moral significance of the act.

Considering that the punitive rationale for crimes committed with criminal intent lies in the protection of specific legal values, criminal law only needs to consider the violation of rules. In other words, the mere *contra ius* decision suffices, any supplementary emotional evaluation of the decision being unnecessary.<sup>39</sup> Therefore, the reason for more severely punishing crimes committed with intent has nothing to do with the feelings that accompany the wrongdoer while committing the crime.<sup>40</sup>

The delimitation of the substance of criminal intent to cognitive and volitional components reflects the criminal law's acceptance of the afore-illustrated "mechanistic" conception of emotions,<sup>41</sup> which qualifies emotions as irrational occurrences that distort reasoning, and hence play no role in rational decision-making processes, neither moral nor antisocial. Interestingly, even if criminal law accepted an "evaluative"<sup>42</sup> conception of emotions and affective states - according to which emotions are crucial in the appraisals or evaluations of the importance or significance of objects and events-

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*sociale*), as provided by Art. 62 n. 2 CP [Ita]. Motives pertaining to the defendant's criminal capacity - called "motives for offending" (*motivi a delinquere*) - can be taken into consideration by the judge at the stage of sentencing; see Art. 133 CP [Ita] - "Sentencing" (*Commisurazione della pena*) - which provides a set of criteria that the judge might want to consider, by virtue of its discretionary powers, while determining punishment. These criteria pertain to both the seriousness of the offence committed (like the modalities of the offence, the nature of the offence, the means adopted, etc.) and the defendant's criminal capacity (motives, character, lifestyle, individual and family conditions, and the like).

<sup>38</sup> Domenico Pulitanò, 'I confini del dolo. Una riflessione sulla moralità del diritto penale' (2013) *Rivista Italiana di Diritto e Procedura Penale* 22.

<sup>39</sup> See Winfried Hassemer, 'Caratteristiche del dolo' (1991) 3 *L'Indice Penale* 481.

<sup>40</sup> *id.*, 491.

<sup>41</sup> See Part One, Chapter I.

<sup>42</sup> *id.*

emotions would still be irrelevant to the substance of intent. As discussed above, criminal intent is limited to the factual and material dimension of the offence. An individual's feeling about the (moral) significance of the criminal act is unnecessary. In other words, it is sufficient that the actor consciously and willingly acted in contrast with what he should have willed - namely, he consciously and willingly violated what is proscribed by the law- regardless of his (moral) feeling about his conduct and the offence in general.

All things considered, the orthodox conception of criminal intent is a psychologically poor place, for its content has been impoverished by a marked objectivism that dominates in criminal law. Its current legal-psychological substance is clearly rationalist. Neither the offender's emotional feelings nor his motives are essential to the existence of criminal intent. Personal guilt is here viewed as nothing more nor less than an element connected to an individual's cold conscious will to engage in prohibited conduct and cause social harm.

#### IV. CONSCIOUSNESS, WILL, AND MOTIVATIONAL FEELINGS: RETHINKING CRIMINAL INTENT WITH EMOTIONS

The current notion of criminal intent appears to be limited when measured against scientific insights into emotion and moral decision-making processes, and thus when confronted with an emotion-oriented conception of culpability.

In Part One, I argued that the general notion of culpability should be revised and integrated with the neuroscientific insights into emotions and moral and antisocial decision making processes by acknowledging that crimes are "moral types of actions".<sup>43</sup> As moral types of actions, I outlined that the mental dynamics accompanying the commission of crimes are not identical to those that accompany the commission of 'ordinary' types of actions, i.e. the vast majority of everyday actions that do not involve any particular kind of moral reasoning. By adapting this argument about culpability to the specific case of criminal intent, it follows that the nature of criminal intent should be reconsidered by revising its descriptive and rationalist substance - which can not grasp

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<sup>43</sup> See Chapter Two, Section V; Chapter III, Section IV.

the nature of the actions to which it refers- and should thus take on a more moralistic dimension.

To illustrate, let us compare Jim's conscious and deliberate decision to go food shopping, by virtue of which he goes food shopping, and Jim's conscious and deliberate decision to stab Paul, by virtue of which he stabs Paul. The descriptions of the psychological processes that characterize both of Jim's actions appear to be equal. In both cases, Jim is aware of the intended goal, in both cases Jim intends to pursue his goal, and acts because of both the consciousness and intentionality of his goal.

Yet can we really say that the deliberative processes underlying Jim's two actions are equal? Of course not. In fact, what differentiates Jim while deciding to go food shopping and Jim while deciding to stab Paul, is precisely the different type of action Jim is about to perform in the two situations. Only in the latter situation does Jim find himself confronted with a type of action that involves a moral evaluation of the conduct he might engage in, and the result he might achieve.

If we adapt the above mentioned definition of crime as an essentially moral type of action to Jim's case, we can readily notice that the act of stabbing Paul requires that Jim make a moral judgment whereas food shopping does not. Recalling the neuroscientific insights illustrated in Chapter Two, this kind of moral judgment critically requires Jim to make use of his emotions and feelings to orient his decision, and to act accordingly. As a result, Jim should be liable for stabbing Paul, *not only* because he factually and consciously intended to kill Paul, but also because his act was motivated by and reflected his strong feeling of disregard for the legal value in question, i.e. Paul's life.

That the notion of intent should consider the moral dimension of criminal actions is also consistent with the view held by some commentators, who maintain that intent - and, more generally, the *mens rea* doctrine- should be reconsidered by also embracing more subjectivist aspects of decision-making in order to individualize, as much as possible, the defendant's actual blameworthiness at the time of the crime. On the European side, one of the most prominent exponents who argued for a moral understanding of intent - at odds with the prevailing rationalist-descriptive approach- was the eminent Italian scholar Giuseppe Bettiol. In the name of greater humanization of criminal law - the aim of which should be the protection of the individual against the

“opaque objectivism which made criminal law a mere conceptualistic machinery”-<sup>44</sup> Bettiol held that criminal responsibility cannot only be grounded in descriptive-psychological requirements, but it also needs to encompass the actor’s feeling about whether the action he is about to engage in is good/right or bad/wrong.<sup>45</sup> As a result, if criminal law understands wrongdoers primarily as moral agents, then the principle of personal guilt becomes reflected in the notion of intent by only including the conscience to be acting *in re illicita*<sup>46</sup> in the substance of this legal mental state. Likewise, the American scholar Samuel Pillsbury acknowledges that the current “analytic forms of *mens rea*, whose definitions rest on states of awareness or desire, often prove underinclusive, that is, too narrow”.<sup>47</sup> The *mens rea* doctrine, Pillsbury objects, is too dispassionate, for it is denuded of emotions, motives and morals.

These subjectivist and morally-oriented views of criminal intent, and *mens rea*, appear to be legally desirable, for they seem to better grasp the essence of the principle of personal guilt. As said, the principle of personal guilt requires that there be a blameworthy psychological link between the act and the wrongdoer. This blameworthy psychological link cannot be expressed through morally neutral descriptive states of mind. On the contrary, the substance of the legally relevant states of mind can truly be expressive of the blameworthy psychological link between the offence and the agent provided that it also comprehends the agent’s inner moral attitude to act in violation of legally protected values.<sup>48</sup>

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<sup>44</sup> Giuseppe Bettiol, ‘Il diritto penale dell’atteggiamento interiore’ (1971) *Rivista Italiana di Diritto e Procedura Penale* 3.

<sup>45</sup> *id.* 7. See also Giuseppe Bettiol, ‘Dolo e responsabilità penale’ in *Scritti Giuridici 1966-1980* (CEDAM 1980) 87 (“[U]na concezione naturalistica descrittiva del dolo non basta più. Essa [...] è inadeguata a cogliere il significato profondo dell’essere umano al momento del suo agire. [...] L’uomo quando opera s’impegna. Non è una semplice macchina fotografica, ma è un essere che vede, comprende, e s’impegna nell’azione. Questo impegno all’azione non può risolversi in una pura rappresentazione del fatto perpetrato perché anche nell’animale questi momenti possono, sia pure in termini rudimentali, essere presenti. Ma l’uomo è [...] impegnato all’azione, vale a dire che egli ha la coscienza del valore o del disvalore del suo comportamento sotto il profilo morale e giuridico.”).

<sup>46</sup> *ibid.* (“[I]l concetto di personalità della responsabilità penale non p[uò] non riflettersi sulla nozione del dolo inserendo nella stessa un momento di valore, vale a dire la coscienza di essere impegnato *in re illicita*”).

<sup>47</sup> Samuel J. Pillsbury, *Judging evil: Rethinking the law of murder and manslaughter* (New York University Press 1998), 80.

<sup>48</sup> See Ferrando Mantonavi, ‘Il personalismo e la personalità del reo nel pensiero di Giuseppe Bettiol’ (2007) *Criminalia: Annuario di scienze penalistiche* 135.

In line with this perspective, the newly developed notion of culpability uses emotions to bridge the gap between *mens rea*, actual blameworthiness, and personal guilt. More specifically, the newly conceived notion of culpability draws upon a view that emotions and feelings critically influence the moral quality of our decisions and actions. In particular, the developed emotion-oriented notion of culpability relies upon a view that emotions play a crucial motivational role for our moral choices and behaviors, thereby influencing our cognitive states and triggering our volitional processes.

In view of this, a notion of criminal intent that is consistent with the reconceptualized notion of culpability can no longer be limited to the mere conscious will to engage in given conduct to do harm. Rather, criminal intent should also include affective states that move an individual to consciously and deliberately opt for engaging in given conduct to inflict harm.

The adoption of a broader legal-psychological set of criminal intent, i.e. the inclusion of affective states in its psychological substance, implies an expansion of its conceptual structure, i.e. a moral feeling of disregard for the protected legal value must be added as a further component.<sup>49</sup> As criminal intent expresses an individual's most intense mental participation in the commission of a criminal act, it must be characterized by a moral

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<sup>49</sup> Interestingly, the prioritization of emotional processes which undergird and guide our decisions has recently been sustained in criminal law. In contrast to the prevailing view, it has been argued that the essence of intent cannot be understood without taking into consideration the teachings of psychodynamic and criminological theories of antisocial behavior. As a consequence, the essence of intent needs to be found in the individual's emotional distortion through which his adhesion to his antisocial impulses are reflected. The main exponent of this account is Elio Morselli, a criminal law professor and criminologist, who proposes the so called 'psychodynamic theory of intent'. See Elio Morselli, 'Coscienza e volontà nella teoria del dolo' (1966) I Archivio Penale 406; Elio Morselli, *Il ruolo dell'atteggiamento interiore nella struttura del reato* (CEDAM 1989); Elio Morselli, 'L'elemento soggettivo del reato nella prospettiva criminologica' (1991) I Rivista Italiana di Diritto e Procedura Penale 87. This means that even in premeditated crimes, such as murder, where it seems that the agent acts in a cold and nonaffective manner, there is a deeper emotional motivation, that goes beyond mere jealousy, or obsession, etc. By adopting this psychodynamic approach, Morselli has extensively argued that the essence of intent is not cognitive-rational, but affective-emotional. More precisely, intent is to be considered as the product of the adhesion of the Id to the antisocial Ego, and hence consists of an intrapsychic emotional distortion that reflects what the Romans called *animus nocendi*. For Morselli, intent should be conceptualized as just described. Despite the extremism of this approach, it is interesting to note that the teachings of psychodynamics and those of neuroscience largely match. As Graziano notes, 'Today the psychodynamic intrapsychic conflict between the Id and the Es is typically visualized through functional neuroimaging in the activity of the frontal cortex, or cognitive neocortex, in combination with the activity of emotional paleo-cortex'; see Graziano Angelo, 'Neuroscienze, Psicoanalisi, diritto penale e modelli della mente' in O. Di Giovine (ed), *Diritto Penale e Neuroetica* (CEDAM 2013) 362. For an explanation on the psychodynamic approach to crime, see Benjamin Karpman, 'Criminal Psychodynamics - A platform' (1956) 47(1) Journal of Criminal Law and Criminology 8, 11 (explaining that, under the psychodynamic approach, "criminal acts result from emotional states which find an outlet in antisocial acts which are symbols of unconscious motivations, often having the same psychic significance as neurotic symptoms").

feeling that expresses the highest intensity of disregard for legally protected values. To put it more specifically, the inclusion of emotion in criminal intent would imply that intent be reconceived as *an individual's conscious will to do harm by virtue of a feeling of malicious disregard for a relevant protected value*. Therefore, a person will meet the criteria for criminal intent not only when it is demonstrated that he was aware and willing to do harm, but also that his decision was motivated by reprehensible feelings expressive of a sense of malice for another individual or community values.

Critics may object that said emotional component is significantly difficult to prove empirically in a legal setting. This possible - and reasonable - objection points to a further implication, i.e. the attribution of relevance to the *quality* of an individual's motive(s) for engaging in criminal conduct within the assessment of intent. Put differently, it is only by looking at the motivation to commit a crime that one can assess the quality of an individual's moral feeling of disregard for a certain legally protected value. Talking about murder, for example, Pillsbury claims that motive is relevant for "it reveals the depth and nature of the offender's attack on value. The worst motives for killing are those that demonstrate the greatest commitment to individual or community disregard".<sup>50</sup>

Motives should not be ignored, for they go to the morality of the act. As Gardner notes, consideration of motive becomes necessary to avoid the criminal law from becoming "a sterile exercise hinging guilt on descriptive states of mind without regard to claims of absent or mitigated moral blame".<sup>51</sup> Whereas motives cannot make a difference to the wrongfulness of the act, they do make a difference to the blameworthiness of the wrongdoer.<sup>52</sup> Therefore, the "inclusions of intrinsic motives to do an act which is evil in the relevant set of psychological states is a *prima facie* reason to take the set to be reprehensible, [and] constitutes a positive connection between an agent's intentions and the agent-evaluation aspect of blameworthiness."<sup>53</sup> In so doing,

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<sup>50</sup> Pillsbury n. 47, 112.

<sup>51</sup> Gardner n. 9, 742

<sup>52</sup> Husak n. 36, 59 ("Why should the criminal law merely describe illegal conduct? It must be conceded that many factors that are relevant to a defendant's blameworthiness are excluded from a description of his conduct. Why should these factors be pertinent only to sentencing and not to liability? A deeper justification is required to support treating variables that describe conduct as relevant only to liability, while treating variables that explain conduct as material only to punishment").

<sup>53</sup> John W. Carroll, 'Intending and blameworthiness' (1987) 17(4) *Philosophia* 393.

motive would become central to the evaluation of blame and liability, not only to sentencing.<sup>54</sup>

Of course, the evaluation of motive within the assessment of criminal intent makes the evaluation of crimes more difficult, in that it requires to look further in the offender and in his conduct. However, and more importantly, understanding motive as a relevant element to evaluate intent would inevitably lead to a more individualized appreciation of a person's blameworthiness, thereby resulting in a more accurate assessment of criminal liability. In order to make this argument more solid, I shall analyze and compare two cases in light of both traditional and alternative conceptions of intent:

C1) A woman is refilling her car with gas at a gas station. In order to steal her car, Leo forcefully threatens the woman to give him the keys. He does not have a gun. Ralph, the gas station clerk, witnesses the scene from his office. He is close enough to see that John does not have a gun. However, Ralph decides to save the woman's life and shoots Leo once in his abdomen. Leo dies some hours later. [Emotions: *FEAR-COMPASSION*]

C2) Carl is notoriously disgusted by transsexuals. One night, Carl walks into a bar, where he sees Tom, a man with ambiguous physical traits. Believing that Tom is a transsexual, Carl takes out the gun he usually carries in his jacket, and shoots Tom in his abdomen. Tom dies some hours later. [Emotions: *DISGUST-HATE*]

Of course, the two cases describe voluntary homicide. The range of available punishments for a voluntary homicide varies substantially, and of course, the two cases would be sentenced differently. The source of the problem is that, at the level of criminal responsibility, Ralph and Carl would be guilty of the same offence committed with the same mental state. Indeed, both agents knew what they were doing, knew - in probable terms at least - that their action would cause the victim's death, intended to cause the victim's death, and caused the victim's death upon this knowledge and intention. In C1, the required conditions to find a justification (like self-defense, or

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<sup>54</sup> Of course, from a strictly practical point of view this does not make any concrete difference, as whether the judge considers motives to liability or to sentencing, the only concrete implication would be for the *quantum* of punishment in any case.

necessity - as they are generally provided) are not necessarily met,<sup>55</sup> and Ralph's cognition that Leo has a gun is arguably unreasonable. The emotional feelings that motivated the perpetrators' actions would be considered as nothing more nor less than either extenuating (in case of Ralph) or exacerbating (in case of Carl) circumstances, influencing the seriousness of the offences, and thus the severity of sentencing.

To illustrate this point, let us imagine the two cases according to the traditional notion of intent by adopting a Cartesian plane. Let us assume to place the knowledge requirement on the x-axis and will on the y-axis. As *indicators* (i.e. relevant and observable elements from which the psychological element can be plausibly inferred) of both requirements, we use: (i) the risk of the offense; (ii) the dynamics of the crime; (iii) the modalities of conduct. As we can easily deduce, both components of intent appear to be equally integrated in all three cases. Indeed, from a descriptive/psychological standpoint, the three agents knowingly and willingly engaged in an unlawful conduct and caused a relevant harm. As a result, the act is clearly and equally committed with intent in both situations.

Now, let us assume to adopt the same Cartesian plane, but change its variables. Let us put the agent's mastery of crime - including both knowledge and will understood as cognitive and regulatory states - on the x-axis, and the moral quality of the agent's emotional feeling - understood as the moral quality of the agent's motivation - on the y-axis. As indicators of the "mastery of crime" variable, we can use (i) mastery of crime with respect to the victim, (ii) the awareness of the occurrence of the offence, and (iii) the intentionality of the result. As indicators of "motivational feeling", we can use: (i) value or disvalue of the achieved purpose; (ii) moral quality of motivation; (iii) relationship with the victim.

In this second Cartesian plane, the two cases would be evaluated differently. Following the provided indicators, we can infer that the two perpetrators have more or less the same mastery of crime. They are aware of what they are doing, they are aware of the risks they are imposing on the victim, and they deliberately decide to commit the killing. Cognitively speaking, they appear to be equally blameworthy. Yet the *discrimen*

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<sup>55</sup> Depending on how single jurisdictions define and interpret each justification, i.e. by attributing more weight either to the actor's subjective beliefs about a specific situation or to objective circumstances existing in that specific situation.

between the two cases is given precisely by the emotional process - expressed in the moral quality of the motivation - that moved each perpetrator to commit the killing. In other words, the emotions and motivational feelings moving Ralph [Fear and Compassion] to kill Leo did not show the same quality and intensity of disregard, or disdain, against the legally protected value - Leo's life- while Carl's emotions and motivational feelings [Disgust and Hate] clearly did.

By applying an alternative conception of criminal intent, in which emotion forms the third *essential* component (in addition to knowledge and will), only Carl's killing would be qualified as a killing committed with criminal intent. Ideally, Ralph would be acquitted of the charge of intentional killing (due to a lack of the relevant subjective element). While it is true that Ralph had some time to see that Leo did not have a gun, he was moved to act as he did by emotional feelings that may understandably have influenced his cognitive state, and thus made him judge it necessary to react the way he did to sacrifice one's interest to save another in danger.<sup>56</sup>

Ralph's killing was guided by fear and compassion. Recalling my discussion on emotions and feelings conducted in Part One, fear, particularly where it is generated by a sudden emergency, involves giving priority to the immediate satisfaction of the desire for safety. Ralph, therefore, acted under the influence of a desire associated with an emotion that creates the kind of imperative for immediate action that may understandably lead people to do wrong. Also, Ralph was moved to act out of a spontaneous and altruistic desire to alleviate what he took to be another's suffering or another's life in danger. In other words, the experience of both fear and compassion gave rise to the kind of desire that may, for the duration of the emotion, lead one to go wrong in the way that Ralph did.

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<sup>56</sup> Admittedly, one may object that Ralph's conduct would meet the criteria for justifications (e.g. self-defense, or necessity), and therefore his conduct would be acquitted in any case under traditional criminal law concepts. Furthermore, even if Ralph's conduct would not be justified, it might still meet the criteria for justification-excess (as is provided in civil law systems, for example). The point is precisely this. The inclusion of an emotional variable in the substance of *mens rea* states, and thus different conceptualizations of *mens rea* states, might lead to qualify differently an individual's *prima facie* intentional conduct, without resorting to justifications or excuses. This raises further and crucial issues that an emotion-oriented conceptualization of *mens rea* might imply. For instance, whether emotion-oriented conceptualizations of *mens rea* states might provoke a shift in the boundaries between culpability and defenses, as well as lead to an expansion of existing defenses – notably, justifications and excuses. While I acknowledge the crucial relevance of these issues, at the same time I consider them as an autonomous subject matter that I shall explore in depth in the future research steps of this long-term project.

These examples roughly show how the idea of intent might concretely change were its substance complemented with other relevant mental factors. As has been observed, a broader notion of intent would allow for a better evaluation of the effective blameworthiness of an individual's state of mind at the time of the crime, thereby detaching this evaluation from descriptive parameters that do not allow a differentiation between radically different situations. The argument here thus suggests that an analysis of the way in which defendants express desires associated with emotions would play an important role as an analysis of the way that they exercised powers of cognition. Emotions critically influence rationalistic considerations in practical reasoning, leading to wrongdoing even in ethically well-disposed agents.

In summary, the emotion-oriented conception of intent would imply that intent be expanded on three levels. First, with regard to its legal-psychological set, intent would be expanded to include an emotional component, in addition to the current cognitive and volitional ones. Second, as the result of its broader psychological scope, the conceptual structure of intent would be composed of the individual's feeling of malicious disregard for a legally protected value, in addition to his conscious will to engage in criminal conduct. Third, these additional emotional and moral elements would be measured by examining the quality of the agent's motivation to engage in a given type of criminal conduct. The result would be that motivational analysis would come to be included as part of the determination of whether an accused possessed the *mens rea* necessary for *prima facie* criminal liability.

## V. CONCLUDING THOUGHTS

The Chapter sought to demonstrate how the implementation of an emotion-oriented conception of culpability might affect the substance of *mens rea* states. First, the implementation of an emotion-oriented conception of culpability implies the expansion of the essential set of *mens rea* states. In fact, each *mens rea* state - thought in different degrees- would come to be composed of cognitive, conative, and emotional prongs. While cognitive and conative prongs keep their respective meanings of knowledge/awareness (for cognition) and willingness (for volition), emotion in *mens*

*rea* would be expressed *quo* feeling moving an individual to act against legally protected values. Put differently, *the quality of the feeling moving an actor to act against relevant legally protected value* would be included in the essential set of *mens rea* states in addition to cognitive and volitional elements. It follows that *mens rea* assessments would not only require if, or how much, an actor was aware and/or willing to engage in unlawful conduct - and, possibly, do harm - but also what kind of emotional feeling moved, and thus motivated, his decision.

In this Chapter I have analyzed more in detail a different conceptualization of the *mens rea* state of criminal intent in light of the new, alternative conception of culpability. By measuring the ordinary notion of criminal intent against the new understanding of culpability, I highlighted that depicting criminal intent as the conscious will to commit an offence is limited and superficial. Rather, a better conceptualization of criminal intent mandates that its notion also includes the emotional processes moving and motivating an individual to deliberately decide to harm socially protected values.

Criminal intent forms the most severe form of *mens rea*, and is expressive of a strong disregard for legally protected values. As such, the evaluation of intent requires that the feeling moving an individual to act against protected values express a sense of malice to harm individual or community values. In a nutshell, a notion of intent that is in line with the new notion of culpability should also include a moral feeling of malicious disregard for legally protected values that moved an individual to engage in criminal conduct and do harm.

A corollary of the inclusion of this emotional component is the reconsideration of the role of motivation. In fact, the assessment of the third emotional component of intent requires an inquiry into an individual's motive that led him to offend. As a consequence, motive would no longer be considered as something external to criminal intent, while it is only considered for sentencing purposes. Rather, motive would become something internal to criminal intent, to be evaluated for responsibility purposes.

Admittedly, the argument offered here does not imply a radical change in the commonsense-based language used in the everyday legal practice, but rather for a rethinking of criminal intent from a theoretical standpoint. If brain (and behavioral) sciences are able to clarify what is the actual substrate of moral and antisocial decision

making, and therefore can tell something more about the dynamics that lead an individual to choose to act antisocially and unlawfully, then criminal law cannot ignore this knowledge, nor can it be content neither with limited concepts nor with superficial definitions.

In line with the principle of personal guilt, a far-reaching understanding of criminal intent would be able to more adequately comprehend and incorporate the relevant aspects of what constitutes a blameworthy state of mind. In other words, a scientifically sound understanding of intent would certainly enable criminal law to better grasp the real sense of when a person is actually morally and legally worthy of blame for the crime he committed. If responsibility and punishment are to be based on - and proportionate to - actual blameworthiness and deserts, then criminal law should cease to rely upon an excessive formalization of human thought, and implement a truly personalist conception of criminal responsibility.

## Chapter Five

### New Models of Legal Insanity (and Diminished Capacity)<sup>1</sup>

*“How [does one] translate, psychosis, psychopathy,  
or dementia precox, or even sociopathy or neurosis  
into a judgment of what is right and what is wrong?”*  
Judge R. J. Gerber<sup>2</sup>

#### I. INTRODUCTION: THE CONFLICTING RELATIONSHIP BETWEEN NEUROSCIENCE AND INSANITY

The relationship between neuroscientific disciplines and insanity has never been easy. Many books and articles have been written, many conferences held, many contrasting views proposed, but the debate is still ongoing. While neurolaw has always been surrounded by a slew of legends, misconceptions and speculation, the impact of neurosciences on insanity defense has undoubtedly given rise to the most heated debate. On the one (extreme) side, there have been scientists calling for Neurological defense on the grounds that brain diseases settle the issue of insanity.<sup>3</sup> At the other end of the spectrum, criminal scholars have expressed the concern that brain images and scans can actually mislead juries and judges, giving the impression that the brain, not the person, is the subject of excuse. At least three different positions within the controversy regarding neurosciences and insanity have their roots in the aforesaid extreme and contrasting views:

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<sup>1</sup> The discussion on diminished capacity follows the one on insanity only in respect of common law systems, notably the US system that I shall analyze and compare with the Italian system.

<sup>2</sup> Rudolph Joseph Gerber, *The insanity defense* (Academy Press Inc. 1984), 33.

<sup>3</sup> See Richard Restak, *The Brain has a Mind of Its Own* (Crown Publishers 1991).

- Criminals have diseased brains. As the brain is the only cause of human behavior, an insane brain *causes* an insane person. Neuroscience completely disavows the insanity doctrine (Determinist position).
- The brain is not the only cause of human behavior, however, it is its principal source. Nevertheless, there is still a margin of liberty in which a person can freely choose a course of action based on his desires and beliefs. Dysfunctional brains do not automatically generate irrational people in the legal sense. Neuroscience does not have any bearing on insanity. (Compatibilist position).
- Holding that a defendant was suffering from a brain disease at the time of the crime does not challenge insanity in any wise. Neuroscience does not add anything more or less to insanity than other sciences, such as psychiatry, psychology or even sociology, already do. (Compatibilist position).

The disputed role played by neurosciences within the insanity doctrine easily becomes intertwined with the much older debate about the meaning and substance of insanity standards, regardless of discoveries arising from study of the brain. As is well known, the insanity defense – and, in particular, the formulation of its standards – has been the object of long and heated controversy among legal scholars and practitioners. The difficulty of successfully combining science with insanity is certainly exacerbated by preexisting uncertainties about the exact legal meaning and substance of mental (in)capacity.

This Chapter's exact intention is to contribute to both sides of this ongoing debate. It shall do so by proposing an emotionally-oriented model of insanity, as seen through the lens of neuroscientific research into moral decision-making processes, and thus in the light of the new, alternative conception of culpability that has been developed in Chapter III, Part One. It will do so by proposing alternative understandings of insanity, as viewed in light of neuroscientific teachings regarding the role of emotions in decision-making processes. For the task at hand, I shall make an in-depth analysis of the concept of insanity, in order to highlight the rationalist vein that characterizes this legal doctrine.

The Chapter begins with a preliminary caveat section discussing insanity and what it means in a legal context. Little has changed in the last 150 years since the

insanity doctrine was introduced into legal systems. The concept of insanity has remained largely identical, despite the evolution and discoveries made in the sphere of mental health sciences – both behavioral and neurological. As will be made plain, criminal law has been indifferent to scientific advances, preferring to remain tied up with an idea of insanity that is presumed to better fulfill the needs of social control.

After illustrating the hybrid meaning of insanity held in the fields of law and science (Section II), the Chapter moves on to analyze positive laws dealing with insanity defense (Section III) both in Europe (with particular focus on the Italian system) (Section III.A) and in Anglo-American systems (with particular focus on the United States) (Section III.B). The Chapter takes an in-depth look at the rationalist understanding of the human mind that underlies insanity tests (Section IV). The central claim here is that insanity tests are only, or at least mostly, focused on the lack of cognitive or intellectual capacity, as cognitive capacity is considered the only mental source of moral behavior.

In confirmation of this, I will address the difficult issue of moral insanity (Section V). This encompasses those forms of socio-affective personality disorders characterized by a pathological lack or defect of emotional and moral feelings, despite intact intellectual faculties. Emotional insanity is not recognized by current tests, precisely because emotional capacity is not considered to be a fundamental mental factor for moral rational capacity. Therefore, when asked whether people suffering from psychopathy or any other kind of antisocial personality disorders are “mad” or “bad”, the law is firm in choosing the latter option.

The Chapter also highlights the irrelevance of emotions in insanity defense with respect to the volitional prong of insanity tests. Volitional incapacity only comes into play when it is connected to a defect of intellectual faculties (Section VI). Although rules and standards do sometimes recognize volitional capacity as an autonomous prong of insanity defense, its relevance is still always linked to cognitive defects. Interestingly, while volitional impairments that are linked to cognitive defects can lead to insanity rulings, volitional impairments arising from emotional disturbances are not considered in insanity standards (Section VII). Self-control impairments arising from emotional disturbances might be taken into

account – depending on jurisdictions- as mitigating circumstances, to be considered in the sentencing phase or as limited diminished capacity conditions. I contend that the reason for this distinction lies in the criminal law’s acceptance of the view that emotions play a limited or negligible role in morally rational decision-making processes.

The Chapter then proceeds to measure the rationalist model of insanity defense against the emotionally-oriented paradigm of the Legally Relevant Mind, and thus of culpability, developed in Part One. More specifically, I will highlight the significant mismatch between the current intellect-based model of insanity and the teachings of behavioral and brain sciences regarding what really forms our moral capacity (Section VIII). In light of scientific data, the Chapter then draws up and proposes a new model for legal insanity, one that takes into account the relevance of emotional factors (Section VIII.A).

The Chapter goes on to, firstly, advocate the recognition of emotional capacity as an autonomous prong of insanity tests (Section VIII.A.1). Second, it argues for the recognition of volitional incapacity not only when it arises from cognitive defects, but also when it is the result of pathological emotional disturbances (Section VIII.A.2).

The expansion of the substance of insanity with emotions produces important consequences also on partial insanity (as understood in continental European systems) and diminished capacity standards (as understood in Anglo-American systems, and notably on the Heat of Passion and the Extreme Emotional Disturbance doctrines)<sup>4</sup> (Section VIII.B). While the substance of partial insanity would change inasmuch as the substance of total insanity – as the two doctrines differ only in terms of degrees of mental illness and incapacity-, the consequences

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<sup>4</sup> A caveat on legal definitions is needed here to avoid confusion: in continental European systems, insanity is generally both total and partial. It is total when a given mental illness is so serious that it totally or severely compromises one’s capacities for understanding and self-control. It is partial when the mental illness reduces one’s capacities for understanding and self-control. That is, partial insanity is a milder form of total insanity. The notion of partial insanity is not to be confused with that of diminished capacity, as currently understood in Anglo-American systems. Unlike continental European systems, where diminished capacity can be understood as synonym with partial insanity – in Anglo-American systems, diminished capacity is by definition unrelated to insanity. Notwithstanding diminished capacity is a type of partial affirmative defense or excuse, the current Anglo-American diminished capacity doctrine is based on different mental requirements compared to insanity, and it can only be plead to lessen the degree of homicide from murder to manslaughter, not one’s general blame.

for diminished capacity are much more significant. In fact, accepting that emotional dysfunctions are part of the relevant mental substance that makes volitional incapacity in insanity tests, the plausibility of the present doctrinal distinction between insanity and diminished capacity is greatly put into question to the extent that the legal nature of diminished capacity must be reconsidered.

Last but not least, an emotion-oriented model of insanity might result in an updated notion of mental illness, expanding it to include a host of conditions that have been historically omitted (Section IX). In other words, a tripartite test of insanity would inevitably lead to the broadening of the category of people eligible for this sort of defense. In particular, I shall discuss the new status of people suffering from mental diseases and personality disorders characterized by emotional impairments. This does not, of course, mean that all antisocial or emotionally flat mental diseases should exculpate. Rather, criminal law should turn to a different kind of assessment of mental illness, one that draws upon an emotionally-informed understanding of moral capacity, and therefore of insanity.

The Chapter concludes (Section X) with the observation that, despite its potential to broaden the pool of beneficiaries, a new model for insanity defense should be implemented, model that would better reflect our actual moral capacities and would therefore be more consistent with the new paradigm of culpability.

## II. AT THE CROSSROADS OF LAW AND SCIENCE: THE HYBRID MEANING OF INSANITY

According to the most largely accepted view, insanity defense is an affirmative defense, whereby a criminal defendant seeks to be excused from criminal liability on the grounds that, at the time of the crime, a mental illness has deprived him from his relevant capacities required for criminal responsibility - namely, rationality and self-control. Although this definition appears to be clear and concise, the nature of insanity has always been a source of confusion and great controversy among psychiatrists and criminal law theorists.

In theoretical terms, insanity is a legal concept, not a medical one. In other words, a mental illness (disease, defect, or disorder, depending on the terminology

adopted), in the clinical sense, generally constitutes the “but for” condition of legal insanity. However, for insanity to exist, it ultimately needs to satisfy predetermined legal criteria, not medical ones. The law is therefore never really interested in mental illness as such. There must be mental illness, yes, but there is always a second requirement, i.e. that the illness be of such form or degree as to meet certain legal criterion. As Fingarette puts it, “When criminal law asks questions concerning mental disease and insanity, it is concerned with the defendant’s mental capacities *with respect to the law*”.<sup>5</sup>

It is not a mental illness *per se* that provides grounds for excuse. What provides grounds for an excuse is, rather, whether a given mental illness is capable of totally or substantially compromising the defendant’s mental capacities the defendant is required to possess in order to be held criminally responsible. Locating the relevant boundary within the domain of mental illness is not ultimately a matter of psychiatric science. Rather, it is determined by the individual’s awareness of the moral and legal conditions of responsibility. In other words, the determination rests not on the nature of a person’s mental disease, but on whether or not that disease compromised the person’s capacity to be and act as a moral – and thus potentially culpable- agent. Causation by a mental illness is not sufficient to count as an excuse.<sup>6</sup> Therefore, when a defendant claims to be schizophrenic, the real issue at stake is not only whether he was suffering from schizophrenia at the time of the crime, but also, and most importantly, whether schizophrenia deprived him of his capacities to act as a moral agent, according to the criteria set by the law.

It follows that any assessment of insanity requires a twofold test. The first part is clinical, and falls within the domain of science/mental health professionals, i.e. “Was the defendant mentally ill?”. The second is normative, and falls within the domain of the law/court, i.e. “If so, was the illness such as to compromise the defendant’s capacity as a would-be culpable agent?”. This means that what might prove to be clinically mentally ill would not necessarily be proven to be legally insane.

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<sup>5</sup> Herbert Fingarette, *The meaning of criminal insanity* (University of California Press 1972), 45.

<sup>6</sup> Belief to the contrary risks giving rise to what Stephen Morse has defined as the “fundamental psycholegal error”. See Stephen J. Morse, ‘Brain Overclaim Syndrome and criminal responsibility: a diagnostic note’ (2006) 3 Ohio State Journal of Criminal Law 397.

The reason why the meaning of legal insanity and that of medical mental illness do not necessarily correspond is an intuitive one: law and medical science pursue different purposes.<sup>7</sup> While medical science's purposes tend to be chiefly diagnostic and therapeutic, the purposes of criminal law tend to be those of attributing blame and responsibility. As a result of its normative function, criminal law views mental illness from a different perspective – namely, that of an agent's actual capacity to behave as a normative (moral, social, legal) agent. The law does not seek to identify and excuse those persons who are mentally ill, nor is there any reason that it should. In fact, the rationale for insanity defense goes back to the heart of retributivism and moral desert. As Dressler simply puts it, punishment depends on moral desert; moral desert depends on moral responsibility for one's actions; and moral responsibility for one's action depends on "the essential attributes of personhood, namely rationality and self-control. Insane people [...] lack essential attributes of personhood".<sup>8</sup> It therefore follows that it makes no sense to punish insane people, seeing as that they would not even be able to appreciate the retributive significance of punishment.

Although acceptable in theory, the dichotomy between insanity in the eyes of the law and mental illness according to science risks creating confusion and error when an insanity plea is at stake. A legal defense whose foundations rest on a medical conception is inevitably difficult to administer in everyday practice. Given that the law construes mental illness in terms of degree of criminal responsibility, no diagnostic parameters have been set. It follows that the legal boundaries of mental (ab)normality do not correspond to those set by the psychiatric sciences.

Moreover, the contrast between law and psychiatry is also emphasized by the different languages - empirical/scientific vs. normative/legal- that the two disciplines adopt when discussing matters of mental illness. The psychiatrist is justifiably critical of legal language and concepts, regarding them as incorporating obsolete and often discredited medical theories relating to the mind. However, the

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<sup>7</sup> See Arval Morris, 'Criminal insanity' (1967-1968) 43 Washington Law Review 583, 587 ("A psychiatrist's task is to relieve, or cure, defects of the mind, and not to draw a sharp legal line through various mental ailments separating the "insane" from the rest. True, he may classify a patient as paranoid, schizophrenic, manic-depressive, senile psychotic or paretic; however, he need not draw a sharp line between sanity and insanity. But the law draws such a line when it distinguishes between conviction and acquittal.").

<sup>8</sup> Joshua Dressler, *Understanding Criminal Law* (7th edn, LexisNexis 2015), 477.

legal professional is likewise justified in his criticism of scientific language and diagnoses - criticism rooted in the fact that science cannot provide an answer to normative questions of culpability, morality, and responsibility. Consequently, while mental health professionals might have significant conceptual problems delivering their opinion to the court, the courts might likewise experience considerable problems understanding a psychiatrist's diagnosis and correctly translating it into a judgment of sanity/insanity.

More importantly, as we have already observed, even in those cases where a defendant's psychiatric diagnosis is one of mental illness, his condition might nonetheless prove insufficient to meet the legal criteria of insanity, and he would therefore still be considered entirely criminally responsible. The practical - and paradoxical- result is that he would be sentenced to a given penalty (let us assume prison) without actually being able, due to his mental illness, to perceive, appreciate or follow the retributive or re-educative path that punishment is meant to pursue. In fact, punishing these categories of subjects can only have worsening effects on their vulnerable personalities.<sup>9</sup> In addition, it undermines their successful reentry into the community and social reintegration subsequent to serving a (prison) sentence.<sup>10</sup>

The conceptual confusion between empirical and normative languages, combined with the scientific inaccuracies and oddities emerging from the doctrine of insanity, have led many commentators to call for its abolition.<sup>11</sup> Although I do

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<sup>9</sup> For an excellent empirical and normative analysis of the actual negative impact and the concrete risks of imprisonment when dealing with prisoners with mental disorders, see E. Lea Johnston, 'Vulnerability and just desert: A theory of sentencing and mental illness' (2013) 103(1) *The Journal of Criminal Law and Criminology* 147.

<sup>10</sup> See Arthur Lurigio et al., 'The effects of serious mental illness on offender reentry' (2004) 68(2) *Federal Probation* 45, URL= <[http://canatx.org/rrt\\_new/professionals/articles/LURIGIO-MENTAL%20ILLNESS%20AND%20REENTRY.pdf](http://canatx.org/rrt_new/professionals/articles/LURIGIO-MENTAL%20ILLNESS%20AND%20REENTRY.pdf)> accessed 18 April 2016.

<sup>11</sup> Among these, see Abraham Goldstein & Leo Katz, 'Abolish the insanity defense - Why not?' (1993) 72 *Yale Law Journal* 853; Paul Robinson, 'Criminal Law Defenses: A systematic Analysis' (1982) 82 *Columbia Law Review* 199; William French Smith, 'Limiting the insanity defense: A rational approach to irrational crimes' (1982) 47(4) *Missouri Law Review* 605. Furthermore, in response to criticisms of the insanity defense, some states have adopted an alternative verdict "Guilty but Mentally Ill" (GBMI). See Dressler, n. 8, 496. A strong argument against the legal scholars calling for the abolition of the insanity defense is offered by Stephen J. Morse & Richard Bonnie, 'Abolition of the insanity defense violates due process' (2013) 41(4) *Journal of American Academy of Psychiatry Law* 488. Moving from the American to the European side - where the call for the abolition of the insanity defense is much more limited - see Gianluigi Ponti & Isabella Merzagora Betsos, *Psichiatria e giustizia* (Cortina 1993), 107; Romina Enna, 'L'imputabilità' in Fiore-Moccia-Cavaliere (eds), *Quale riforma del codice penale?* (Edizioni Scientifiche Italiane 2009).

not share the abolitionist position, I do endorse the view that the substance of legal insanity should be characterized by greater scientific precision and plausibility.<sup>12</sup> Indeed, while I do believe that insanity defense is, and should ultimately be, a purely legal matter, at the same time I am of the opinion that the law's conception and practical evaluation of insanity cannot heavily ignore science and should be more open to reconsidering its own views.

Behavioral and neuroscientific findings have been advancing at an impressive pace, with the result that the notion of mental illness has changed and expanded significantly over the past fifty years. However, as will be made plain, the law - and therefore insanity doctrine- have simply disregarded these discoveries, remaining tied up in an outdated understanding of mental illness. In particular, the current notion of insanity completely ignores the discoveries made by brain sciences with regard to the dynamics that underpin moral and criminal behavior. It instead remains mired in outdated assumptions that are the product of erroneous intellectualistic intuitions. By so doing, the current notion of insanity does not take into account those which are the true - and scientifically sound- "essential attributes"<sup>13</sup> of moral and legal personhood. It therefore follows that the currently accepted grounds for criminal (ir)responsibility are based on a fictitious and unrealistic idea of mental (ab)normality.

The erroneous legal understanding of the mental makeup underpinning insanity forms the starting point of the argument I shall develop in this Chapter. In the following sections, I will precisely highlight and discuss the flawed nature of the rationalist assumptions underlying current insanity tests. I shall measure them against the advances made in neuroscientific research focusing on the crucial role of emotions in the decision-making processes and in moral judgments. For the task at hand, it is primarily crucial to conduct a detailed normative analysis of the legal formulations and interpretations of insanity (and diminished capacity) standards as they currently stand. In doing so, we will be able to shed light on possible contradictions, gaps, and inadequacies in view of scientific advances regarding the (dys)functioning of moral behavior.

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<sup>12</sup> Henry Weihofen, *Insanity as a defense in criminal law* (Commonwealth Fund 1993), 1.

<sup>13</sup> Quoting Dressel, n. 8.

### III. LEGAL FORMULATIONS AND INTERPRETATIONS OF INSANITY STANDARDS: A COMPARATIVE ANALYSIS

This Section illustrates and discusses different insanity tests that have been adopted in both civil law systems (the main focus will be Italy) and common law systems (the main focus will be the United States). My purpose, as will be made plain, is not to conduct an in-depth analysis of insanity standards (the literature is already overabundant). Rather, I will simply highlight the main normative aspects that will allow us to deduce the rationalist assumptions underlying this doctrine, which I will discuss in detail in Section IV.

#### A. Traditional insanity tests (total and partial) in Italy

This subsection examines the current standards of insanity adopted by the Italian system. It starts with a brief analysis of the Italian Penal Code's provisions on *imputabilità*, and then continues with an analysis of provisions on total insanity and partial insanity. It then provides an overview of the 2005 Italian *Corte di Cassazione*'s (Court of Cassation's) famous decision stating that personality disorders must be included in the range of the possible causes of insanity, thereby expanding the conception of legally-relevant mental illness.

##### 1. *Imputabilità, Total Insanity, and Partial Insanity*

The analysis of the *insanity* defense in Italy cannot but stem from the understanding of the concept of *imputabilità*. Recalling once again what has been explained in Chapter One,<sup>14</sup> *imputabilità* refers to the mental conditions that make an individual potentially culpable for a crime. *Imputabilità* consists of the capacities to be accountable for a crime, i.e. the necessary capacities an agent must possess in order to be considered responsible for a crime and bear the social

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<sup>14</sup> See Part One, Chapter One, Section II.

and legal consequences that may result from its commission. These conditions are grounded in the individual's free decisional power.<sup>15</sup>

The substance of *imputabilità* is twofold: psychological-naturalistic and legal-formalistic. In descriptive (psychological-naturalistic) terms, *imputabilità* constitutes an individual's mental capacity to be considered capable of bearing blame and responsibility. This mental capacity depends on an individual's age and mental sanity. It is these two factors that make human actions truly conscious and free within the domain of law. In normative (legal-formalistic) terms, as we can deduce from the text of Article 85 of the Italian Penal Code,<sup>16</sup> *imputabilità* is synonym with cognitive and volitional capacity.

Cognitive capacity refers to the intellectual capacity to properly understand the factual meaning, social disvalue, and the punitive consequences of one's conduct.<sup>17</sup> That is, it consists of the defendant's ability to act by virtue of a correct perception of reality.<sup>18</sup> It is worth noting that it is not necessary for the individual to be aware of the unlawfulness of his conduct. It is sufficient that he is able to grasp its social (dis)value. In other words, he must be aware of how the society he lives in perceives that conduct. Moreover, cognitive capacity does not extend to encompass a moral appreciation of the value of a given act or behavior.<sup>19</sup> Therefore, if an individual is unable to perceive the antisocial nature of a certain type of misconduct based on his own personal morality, but is nonetheless capable of understanding the objective factual and social implications of said misconduct, then he will be considered perfectly *imputabile* for his criminal behavior. As Ferrando Mantovani observed, cognitive capacity does not require either moral feeling or moral acceptance of what the law prescribes. Therefore, those who lack

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<sup>15</sup> By "free decisional power" I do not mean metaphysical free will. The understanding of freedom that lies at the basis of *imputabilità* is better defined as the capacity to make free choices according to society morals.

<sup>16</sup> Article 85 CP [Ita]: "No one shall be punished for an act defined by law as a crime if he was not '*imputabile*' at the time he committed the act. A person is "*imputabile*" (adj.) if he possesses *la capacità di intendere e volere* [cognitive and volitional capacities. The original text of Art. 85 CP [Ita] reads, "Nessuno può essere punito per un fatto preveduto dalla legge come reato se, al momento della sua commissione, non era imputabile. È imputabile chi ha la capacità di intendere e di volere".

<sup>17</sup> See Alberto Crespi, 'Imputabilità' in *Enciclopedia del Diritto vol. XX* (Giuffrè 1970), 3.

<sup>18</sup> Cass. pen. (1) n. 13202/1990, *unpublished* ("La capacità di intendere è la idoneità del soggetto a comprendere il significato del proprio comportamento e di valutarne le conseguenze secondo una corretta rappresentazione del mondo").

<sup>19</sup> Mauro Ronco & Bartolomeo Romano (eds), *Codice Penale Commentato* (4th edn, UTET Giuridica 2012), 693.

feelings, sentiments, or simply deviate from and do not accept social values nevertheless possess the cognitive capacity to understand the social meaning of their actions. Moreover, as he goes on to say, the failure to perceive the moral disvalue of a certain act or behavior can only have an impact on cognitive capacity when it is the result of a mind being immature due to young age or intellectual defect.<sup>20</sup>

Volitional capacity is defined in various ways. It is described, in some cases, as the capacity for free self-determination, employed for the purpose of achieving a certain goal, in others as having the will to carry out what intellect has judged must be done, and acting accordingly. Sometimes it is defined as opting for one conduct over another, other times as choosing between conflicting reasons in accordance to a certain scale of values or, last but not least, as the ability to resist emotional stimuli.<sup>21</sup> In short, volitional capacity is simply the capacity to conform one's behavior to one's reasons and values – in other words, it is the capacity to control antisocial impulses.<sup>22</sup>

As we shall see, the legal notion of *imputabilità* only takes into account the cognitive and volitional dimensions of the human psyche, while totally ignoring the emotional-affective one, as is, in fact, expressly stated in Article 90 of the Italian Penal Code.<sup>23</sup> As will be discussed and questioned, the exclusion of emotions and affective states derives from the assumption that cognition and volition are the most influential spheres on human behavior, while feelings and emotions are assumed to play a very limited and secondary role in guiding human choices.

Given that *imputabilità* forms the legal paradigm for the basic mental capacity for criminal responsibility, it is precisely from this normative definition that the Italian legislators derive their notion of insanity. Indeed, Article 88 of the Italian Penal Code states that one is not *imputabile* if, at the time of the crime, he or she

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<sup>20</sup> Ferrando Mantovani, *Diritto Penale. Parte Generale* (8th edn, CEDAM 2013), 648 (“Chi è privo di sentimento [...] chi dissente da certi valori [...] non è perciò solo incapace di intendere. Il non sentire il disvalore sociale di un fatto [...] diventa incapacità di intendere [...] solo se deriva da immaturità connessa ad età minore o da infermità di mente o da situazioni equiparate”).

<sup>21</sup> See Crespi n. 17; Ferrando Mantovani, ‘L’imputabilità sotto il profilo giuridico’ in Ferracuti F. (ed), *Trattato di Criminologia, Medicina Criminologica e Psichiatria Forense, vol. 13: Psichiatria forense generale e penale* (Giuffrè 1990), 29.

<sup>22</sup> See *infra* Section VI.

<sup>23</sup> Article 90 CP [Ita]: “Gli stati emotivi e passionali non escludono né diminuiscono l’imputabilità” (transl: “Emotions and passions do not exclude nor diminish *imputabilità*”).

was in a mental condition that excluded/eliminated *either* cognitive *or* volitional capacities. This means that, in order to be considered insane, the defendant must be in such a mentally ill condition that he has, in actuality, lost his capacity to understand and control his conduct.<sup>24</sup>

As will become more plain in the next sub-section, the notion of insanity is a normative one. Even if insanity is measured in light of the biological and psychological conditions of the agent at the time the crime was committed, what really matters is whether those conditions compromised his capacity to be a legal agent, including in consideration of the re-educational purpose of punishment.<sup>25</sup>

The Italian system, like European systems in general, acknowledges that there are varying degrees of criminal responsibility. It therefore recognizes the possibility of partial insanity. As a matter of fact, Article 89 of the Italian Penal Code provides that, should a person's cognitive and volitional capacities be greatly reduced but not entirely lacking at the time of the crime (due to mental illness) then he/she would be deemed accountable for the offence committed, but the penalties would be reduced.<sup>26</sup> According to this provision, the accused may be suffering from some form of mental illness, but with a level of impairment that is not "total" and does not therefore fulfill the requirements for the test of full insanity. The pathology is then considered to be a mitigating factor affecting the degree of responsibility. A defense of partial insanity or diminished capacity does not afford the accused complete exculpation, but may result in a reduced sentence, part of which is served at a psychiatric hospital. In cases where the accused is also found to be socially dangerous, security measures may be applied.

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<sup>24</sup> See Cass. Pen. (2) n. 2774/2008, (2009) CED Cass. Pen. ("In tema di imputabilità, ai fini del riconoscimento della sussistenza del vizio totale o parziale di mente (e ferma restando la necessità dell'accertamento del nesso eziologico fra il disturbo rilevato, che può essere anche temporaneo, e l'azione delittuosa), acquistano rilievo solo quelle turbe della personalità di tale consistenza e gravità da determinare in concreto una situazione psichica incolpevolmente incontrollabile da parte del soggetto che, di conseguenza, non può gestire le proprie azioni e non ne percepisce il disvalore").

<sup>25</sup> Art. 27, par. 3 of the Italian Constitution states that punishment has to be intended primarily to re-educate the convicted person. In order to satisfy this purpose, it is necessary that the defendant be able to comprehend the meaning, function, and "benefits" of the relevant penalty.

<sup>26</sup> Art. 89 CP [Ita]: "Chi, nel momento in cui ha commesso il fatto, era, per infermità, in tale stato di mente da scemare grandemente, senza escluderla, la capacità di intendere o di volere, risponde del reato commesso; ma la pena è diminuita".

2. *The evolution of the notion of legally relevant mental pathology:  
The Raso case (Cass. Pen., Sez. Un., n. 9136/2005)*

The conceptual substance of insanity requirements in Italy has always remained largely undisputed. The national debate surrounding the insanity defense has focused mainly on determining which legally-relevant pathologies might result in total or partial legal insanity. In fact, Italian academics and the courts have long debated which paradigm of mental illness should be used as a benchmark in insanity rulings.

The turning point in the debate was the famous 2005 *Corte di Cassazione*'s decision in the Raso case,<sup>27</sup> which put an end to the long controversy surrounding the interpretation of the notion of legally-relevant mental illness (transl.: *infermità*) - in other words, those illnesses that might constitute a suitable basis for an insanity defense.<sup>28</sup> On that occasion, the Court primarily outlined that the legal concept of mental illness, just like that of *imputabilità*, is at the same time empirical and normative. It is empirical insofar as it is science that is first required (i.e. medical science in the person of the expert witness) to lay out the defendant's biopsychological conditions at the time of the crime. It is normative insofar as it is the law that sets the requirements a certain mental condition must meet in order to be considered as part of an insanity assessment.

This means that the existence of a mental pathology, however serious it may be, is not sufficient *per se* to grant a plea of insanity. Rather, it must totally or

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<sup>27</sup> Cass. pen. Sez. Un. n. 9136/2005, (2005) 1 *Rivista Italiana di Diritto e Procedura Penale* 3.

<sup>28</sup> For a long time, two main contrasting approaches to the notion of "legally-relevant mental illness" have been alternatively adopted by Italian courts. These are the "clinical" approach and the "normative" approach. According to the "clinical" approach, the notion of legally relevant mental illness only encompasses mental diseases *stricto sensu*, that is, those mental diseases with an organic or biological substrate (this approach is also known as the "organicistic-biological model"). In other words, the range of legally relevant mental diseases only encompasses *stricto sensu* mental diseases such as psychoses, which can be subsumed under nosographic classifications created by psychiatrists and forensic psychologists; see Cass. Pen. (4) n. 26614/2003, *unpublished*; Cass. Pen. (1) n. 7523/1991, *unpublished*; Cass. Pen. (5) n. 1078/1997, *unpublished*). This approach has been contrasted by another branch of judicial decisions, which supported a purely legal understanding of insanity (i.e. the "legal model"). According to this approach, mental illness in the legal domain is an entirely legal concept, and therefore its substance must be totally normative, free of any scientific connotation. See Giuseppe Amoroso, 'Giudizio di Imputabilità e Neuroscienze' (2012) 6 *Diritto e Scienza*, *Rivista Telematica* 4, 9 ("In base ad una diversa ricostruzione teorica, che costituisce il c.d. "indirizzo giuridico", l'individuazione delle patologie mentali penalmente rilevanti dovrebbe, invece, avvenire sulla base di un modello funzionale - garantistico che assegni la priorità all'elaborazione normativa del concetto, pur senza negare l'utilità di un riferimento alle nozioni desunte dalla scienza medica. Tale lettura, pertanto, pone l'accento sul profilo giuridico, riservando un ruolo di secondo piano, pur se non secondario, all'aspetto medico.").

partially compromise at least one of the requirements of mental normality as provided by the law – namely, cognitive or volitional capacity. Consequently, the notion of legally-relevant mental illness is not the equivalent of mental illness from the standpoint of medical science. Its substance is broader, in that it encompasses any mental condition that is able to compromise the defendant’s cognitive and volitional capacities at the time of the crime. It is therefore not necessary that a mental condition be potentially ascribable to a specific nosographic category according to psychiatric classifications. What matters is only that the condition affected the defendant’s cognitive or volitional capacity at the time of the crime.

Stemming from this broad understanding of legally relevant mental illness, and adopting a bio-psycho-social model<sup>29</sup> of mental illness (in accordance with the dominant psychiatric approach), the Supreme Court stated that, apart from *stricto sensu* mental diseases, such as psychosis or schizophrenia, personality disorders are also potentially suitable grounds for an insanity ruling - provided that they are of such strength and intensity as to be able, in actual fact, to exclude or seriously compromise an individual’s cognitive capacity to understand the disvalue of his conduct and its punitive consequences, or his volitional capacity for self-control at the time of the crime.<sup>30</sup> Granted, there must be a causal link between the disorder and the relevant crime.<sup>31</sup>

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<sup>29</sup> The biopsychosocial model of mental illness is a framework developed by George L. Engel that states that interactions between biological, psychological, and social factors determine the cause, manifestation, and outcome of mental disease. The biopsychosocial model argues that any one factor is not sufficient; it is the interplay between people’s genetic makeup (biology), mental health and behavior (psychology), and sociocultural environment (social world) that determine mental diseases and disorders. See George L. Engel, ‘The clinical application of the biopsychosocial model’ (1980) 137 *American Journal of Psychiatry* 535; Francesc Borrell-Carrió et al., ‘The biopsychosocial model 25 years later: principles, practice, and scientific inquiry’ (2004) 2 *The Annals of Family Medicine* 576; Kenneth Kendler, ‘Toward a Philosophical Structure for Psychiatry’ (2005) 162 *American Journal of Psychiatry* 433, 434 (“Our current knowledge, although incomplete, strongly suggests that all major psychiatric disorders are complex and multifactorial. What we can best hope for is lots of small explanations, from a variety of explanatory perspectives, each addressing part of the complex etiological processes leading to disorders. It will be particularly challenging to understand how these many different small explanations all fit together”).

<sup>30</sup> Following this approach, the Italian *Corte di Cassazione* acknowledges that mental diseases and disorders are multifactorial, and therefore adopts an “integrated model” of mental illness; see Cass. pen. n. 27, par. 15.0, 417.

<sup>31</sup> Cass. pen., *id.*, par. 17.0, 420 (“[A]nche i “disturbi della personalità” possono rilevare ai fini del riconoscimento del vizio totale o parziale di mente, purchè siano di gravità tali da incidere concretamente sulla capacità di intendere o di volere, escludendola o scemandola grandemente, e a condizione che sussista un nesso eziologico con la specifica condotta criminosa.”).

Furthermore, in partial contrast with previous decisions<sup>32</sup> - according to which, even if emotions and passions may potentially affect the agent's mental alertness or the capacity for self-control, they cannot affect *imputabilità* – the Court here attributes more relevance to socioaffective disorders, such as psychopathies (transl.: *psicopatie*)<sup>33</sup> and neuroses. On the one hand, the Court confirms that, as a rule, these kinds of personality abnormalities, as well as passionate and emotional states (Article 90 C.P.), do not carry any weight with regard to *imputabilità*. On the other hand, the Court acknowledges that they might *exceptionally* affect *imputabilità* if their pathological nature were convincingly demonstrated and, moreover, if said pathological nature excluded or severely compromised the agent's capacity to know what he was doing and control himself at the time of the crime (cognitive and volitional capacities).<sup>34</sup>

As for the type of mental diseases or disorders potentially eligible for a partial insanity plea, the partial insanity doctrine only differs from that of total insanity quantitatively, not qualitatively. In fact, the difference between total insanity and partial insanity is that in the latter the mental disease or disorder has seriously, but

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<sup>32</sup> See Cass. pen. (1) n. 967/1997, (1998) Cassazione Penale 156; Cass. pen. (5) n.8660/1990, *unpublished*; Cass. pen. (5) n.24696/2004, (2005) 10 Cassazione Penale 2985.

<sup>33</sup>It is not clear what the Italian *Corte di Cassazione* means by its plural use of the word “psychopathies.” I assume it refers to antisocial conduct disorders as well as psychopathy. Moreover, it must be noted that, unlike in Anglo-American systems, psychopathy in the European scenario is not always treated as an autonomous psychiatric category, but rather as a subcategory, a trait, or even a synonym of antisocial personality disorder. In Italy, for example, psychopathy is not recognized as a psychiatry category, rather the term psychopathy is usually employed to describe patients suffering from personality disorders in general. See Romy Greco & Antonietta Curci, ‘Regolazione delle Emozioni e Devianza tra Prevenzione e Trattamento’ in G. Gulotta & A. Curci (eds), *Mente, società, diritto* (Giuffrè 2010) ch. 14, 429.

<sup>34</sup> Cass. Pen. n. 27, par. 15.1, 419 (“Ne consegue [...] che non possono avere rilievo, ai fini della imputabilità, altre “anomalie caratteriali”, “disarmonie della personalità”, “alterazioni di tipo caratteriale”, “deviazioni del carattere e del sentimento”, quelle legate “alla indole” del soggetto, che, pur afferendo alla sfera del processo psichico di determinazione e di inibizione, non si rivestano, tuttavia, delle connotazioni testé indicate e non attingano, quindi, a quel rilievo di incisività sulla capacità di autodeterminazione del soggetto agente, nei termini e nella misura voluta dalla norma [...] Né, di norma, possono assumere rilievo alcuno gli stati emotivi e passionali, per la espressa disposizione normativa di cui all’art. 90 c.p. [...] salvo che essi non si inseriscano, eccezionalmente, per le loro peculiarità specifiche, in un più ampio quadro di “infermità” [...]”). This interpretation has been followed by more recent Supreme Court's decisions. See, *inter alia*, Cass. pen. (6) n. 34089/2013, (2013) 45 Guida al Diritto (“Gli stati emotivi o passionali, per loro stessa natura, sono tali da incidere, in modo più o meno massiccio, sulla lucidità mentale del soggetto agente senza che ciò, tuttavia, per espressa disposizione di legge, possa escludere o diminuire l'imputabilità”, occorrendo a tal fine un ‘quid pluris’ che, associato allo stato emotivo o passionale, si traduca in un fattore determinante un vero e proprio stato patologico, sia pure di natura transeunte e non inquadrabile nell'ambito di una precisa classificazione nosografica”); see also Cass. pen. (5) n. 9843/2013, in Giorgio Lattanzi, *Codice penale annotato con la giurisprudenza* (Giuffrè 2014).

not fully, compromised one's cognitive or volitional capacity.<sup>35</sup> This means that the mental diseases or disorders that could potentially lead to a total insanity verdict could also lead to a partial insanity verdict, depending on their intensity and the degree to which the defendant's cognitive and volitional capacities are compromised.

## B. Traditional insanity tests in the United States

This sub-section focuses on insanity standards adopted by Anglo-American systems. It does so by analyzing the most emblematic and most largely adopted tests, such as the M'Naghten Rule and the American Law Institute's Model Penal Code test. Less commonly used tests, such as the Irresistible Impulse Test, will be briefly considered in Section VI, in relation to the volitional prong of insanity tests.

### 1. *The M'Naghten Rule*

The M'Naghten Rule has already been discussed quite extensively in Chapter One.<sup>36</sup> Nonetheless, it is worth returning to examine this topic, this time with a focus on some of the features that relate to the intellect-based test it contains. As noted earlier, the M'Naghten test relies heavily on the accused's cognitive capacity (intellectual capacity), which may have compromised his or her insights and judgments. The core of the M'Naghten test maintains that:

“[...] To establish a defense of insanity, it must be clearly proved that at the time of the committing the act, the accused was labouring under such *a defect of reason, from a disease of the mind*, so as not to *know the nature and quality of the act he was doing, or if he did know it, that he did not know that he was doing what was wrong.*”<sup>37</sup>

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<sup>35</sup> See Cass. pen. (1) Feb 9 1979, (1980) *Rivista Italiana di Medicina Legale*, 926.

<sup>36</sup> See Part One, Chapter One, Section IV.A.

<sup>37</sup> My emphasis. *Regina v. M'Naghten* [1843] 10 Cl. & Fin.200, 8 Eng. Rep. 718.

As we can derive from the text, the Rule relies upon the defendant's cognitive ability to know right from wrong. The cognitivism upon which the Rule relies emerges from two elements: "know[ledge]" and "defect of reason".

Let us start with the former, knowledge. The first branch of the test requires the accused to be sufficiently capable of knowing the nature and quality of his action. This question probes the agent's comprehension of the factual effects of his act, and prompts him to describe his deliberations leading up to it. In this case - since it is a test meant to assess the accused's normal standard of competence-knowledge is synonymous with the perception and comprehension of ordinary phenomena.<sup>38</sup> In other words, it is a matter of evaluating whether the agent has a normal capacity to understand the principal characteristics and consequences of ordinary action (i.e. factual understanding).

The second branch of the test assumes that the agent knows the nature and quality of his act and asks whether he has the capacity to understand that his act is wrong (this is also known as "the moral prong" of the M'Naghten).<sup>39</sup> The problem here is with the meaning of the word "wrong". There have been differing proposals on this issue.<sup>40</sup> However, the prevailing account holds that "wrong" is to be understood as "legally and morally wrong (according to society's morals)".<sup>41</sup> That is, the defendant must actually (mistakenly) believe that his act is not contrary to socially accepted morality.

Finally, "know" is an ambiguous term. According to Sinnott-Armstrong and Ken Levy, "knowledge" is to be understood as "justified true belief plus some Gettier

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<sup>38</sup> Jerome Hall, 'Responsibility and law. In defense of the McNaghten Rules' (1956) 42 American Bar Association Journal 917, 917.

<sup>39</sup> There are some scholarly controversies about the scope of the moral prong of the M'Naghten test. Susan Rozelle, for instance, builds some criticism toward the prevailing understanding of the moral knowledge prong of the M'Naghten supported by both scholars and courts, according to whom the two knowledge prongs of the test are synonymous. More specifically, the two knowledge prongs stand in a dependence relationship, for one presupposes the other. Therefore, if someone knows that something is wrong, he must necessarily know what he is doing. According to Rozelle, the two prongs are to be understood as independent of one another. One may perfectly know what he is doing, yet still believes that what he is doing is not morally wrong. At the same time, one may be unaware of the factual effects and consequences of his act, although he knows, in abstract, that the act he is doing is wrong. See Susan Rozelle, 'Pure Insanity' (2009) 42 Texas Tech. Law Review 543. *Contra*, Morris n. 7, 600.

<sup>40</sup> See Walter Sinnott-Armstrong & Ken Levy, 'Insanity Defenses' in J. Deigh and D. Dolinko (eds), *The Handbook of Philosophy of Criminal Law* (Oxford University Press 2011) ch. 12, 302-306.

<sup>41</sup> Morris, n. 7, 604. See also Orvill C. Snyder, 'Criminal Responsibility' (1962) Duke Law Journal 204, 208 ("An act is wrong when so adjudged by the moral standards of the community").

conditions”.<sup>42</sup> Orvill Snyder emphasizes instead that the actor must know that what he is doing is wrong in such a way as to be subject to blame, and morally culpable, that his mind is a guilty mind. In other words, Snyder seems to claim that the knowledge requirement is also meant to encompass a sense of personal guilt.<sup>43</sup> Rudolph Gerber, on the other hand, observes that the term “knowledge” traditionally refers to a verbal or purely intellectual assent to a moral proposition,<sup>44</sup> and argues that this requirement should be understood in a broader sense.<sup>45</sup> In the former sense, the verb “know” indicates one’s capacity to be aware, to correctly understand certain objective features of behavior. In other words, the word “known” is to be interpreted as an appreciation of “the significance of cognitive observation, that is, whether the defendant is able to relate what is known to the situation at hand and to govern conduct accordingly”.<sup>46</sup>

Although there are few authors who claim that the verb know should be understood in the second, broader meaning, the most straightforward interpretation of knowledge is as something purely cognitive. Moreover, as Raider notes, courts do not define the verb “to know”, and therefore its interpretation is left largely to juries’ discretionary common sense.<sup>47</sup>

Whichever interpretation of “knowledge” is preferred, the M’Naghten Rule requires a lack of knowledge to be related to a “defect of reason”. It is, indeed, our reason that supposedly gives us the ability to know what is right and what is wrong.<sup>48</sup> We have already discussed this aspect in Part One, Chapter One.<sup>49</sup>

However, it is necessary here to recall that the expression “defect of reason”

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<sup>42</sup> Sinnott-Armstrong & Levy n. 40, 301 (referring to the further conditions of knowledge by which philosophers have tried to solve the so called ‘Gettier problem’. See Edmund Gettier, ‘Is Justified True Belief Knowledge?’ (1963) 23 *Analysis* 121; see also Johnathan Ichikawa & Matthew Steup, ‘The analysis of Knowledge’ in E. Zalta (ed) *Stanford Encyclopedia of Philosophy* (Winter 2016) <<http://plato.stanford.edu/entries/knowledge-analysis/#GetPro>> accessed 19 April 2016).

<sup>43</sup> Snyder n. 41, 208-210

<sup>44</sup> Rudolph Joseph Gerber, ‘Is the Insanity Test Insane?’ (1975) 20 *The American Journal of Jurisprudence* 111, 120.

<sup>45</sup> *id.* 120-121. *Cf.* Fingarette n. 5, 142-145.

<sup>46</sup> Richard Bonnie et al., *A Case Study in the Insanity Defense. The Trial of John W. Hinckley, Jr.* (3rd edn, Foundation Press 2008), 12. See also Abraham Goldstein, *The Insanity Defense* (Yale University Press 1967), 49-50.

<sup>47</sup> Laura Raider, ‘Toward a new test for insanity defense: Incorporating the discoveries of neuroscience into moral and legal theories’ (1998) 46 *UCLA Law Review* 289, 306.

<sup>48</sup> See Jerome Hall, ‘Mental Disease and criminal responsibility - M’Naghten versus Durham and the American Law Institute’s tentative draft’ (1958) 33(2) *Indiana Law Journal* 212, 213.

(“[...] please do not lose sight of the fact that the M’Naghten Rule is the rule of reason.”).

<sup>49</sup> See Part One, Chapter One, Section III & Section IV.A.

clearly refers to a defect of intellect, and does not consider other aspects of mental functioning, namely affective (emotional) and conative (volitional) functioning. As a result, the defense cannot be raised if the offence was committed because of a lack of emotions such as empathy. Equally, it is not possible to raise the defense of insanity in cases where the accused has committed an alleged offence as the result of poor self-control, such as in the case of an “irresistible impulse”.

The test contained in the M’Naghten has given rise to different controversies. On the one hand, there are those criminal law specialists who are staunch defenders of the test, maintaining that it is fundamental to the notion of moral blame and retribution, being the main purposes of criminal law.<sup>50</sup> On the other hand, mental health specialists, supported by some legal scholars and practitioners, strongly believe that the M’Naghten test is “obsolete and unscientific”<sup>51</sup> or “not only bad science but unsound law”.<sup>52</sup> Critics holding this view rely upon the fact that cognitive or intellectual integrity is not sufficient to account for a person’s knowledge of the wrongfulness of the act he or she is about to perform and ability to control him/herself. In other words, the intellectual test contained in the Rule is too narrow to encompass the entire scope of legal insanity.

It is easy to infer the meaning of the notion of “disease of mind” from the cognitive test contained in the M’Naghten Rule. As it stands today, the courts have never defined the concept of disease of the mind.<sup>53</sup> However, if the Rule requires a defendant who pleads insanity to be incapable of knowing right from wrong due to a defect of intellect, it follows that a legally relevant disease of the mind cannot but be a cognitive disease - in other words, pure psychosis (e.g. delusional beliefs or hallucinations) or mental retardation.

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<sup>50</sup> See, *inter alia*, Jerome Hall, ‘In defense of the McNaghten Rules’ (1956) 42 American Bar Association Journal 917.

<sup>51</sup> See the argument made by Justice Simon Sobeloff, following the critiques advanced by Dr. Isaac Ray and his followers against the M’Naghten test: Simon Sobeloff, ‘From M’Naghten to Durham, and beyond – a discussion of insanity and the criminal law’ (1955) 15(2) Maryland Law Review 93.

<sup>52</sup> Richard Kuh, ‘The insanity defense – An effort to combine law and reason’ (1962) 110(6) University of Pennsylvania Law Review 771, 782.

<sup>53</sup> *id.* 785. (“Although the standards in theory require that the inability to know the nature and quality of one’s acts or to distinguish right from wrong stem from “a defect of reason, from disease of the mind,” a finding of such disease or defect follows almost automatically when it is found that a defendant was in such a state that he did not know the nature, quality, or wrongfulness of his actions. Hence, under McNaughton, no emphasis need be placed on the medical question of illness”).

Consequently, only purely cognitive defects are considered capable of giving rise to irrational behavior. As Gerber more precisely puts it, it is only “when cognition is defective that the personality as a whole is so impaired that the accused cannot ‘know’ the wrongfulness of his actions”.<sup>54</sup> Noncognitive mental disorders are, therefore, not diseases of the mind. In theory, defendants who are shown to possess some degree of intellectual or verbal knowledge of what they were doing at the time of the crime will arguably be considered to be entirely legally sane.

## 2. American Law Institute’s Model Penal Code

The American Law Institute (ALI)’s Model Penal Code (MPC) test was created specifically “to clarify, modernize, and otherwise improve the law across all jurisdiction of the USA”.<sup>55</sup> After the M’Naghten test, the ALI model is the test most frequently used in the US jurisdictions. The MPC’s formulation is based on the assumption that insanity should be grounded in a broader understanding of cognition, “and a reference to volitional incapacity should be achieved directly in the formulation of the defense”.<sup>56</sup> The greatest merit of the ALI test is that it combines the attributes of the M’Naghten Rule and the Irresistible Impulse test. Section 4.01 (1) of the MPC reads:

“A person is not responsible for criminal conduct if at the time of such conduct as a result of of *mental disease or defect* he lacks *substantial* capacity either to *appreciate* the criminality of his conduct or to *conform* his conduct to the requirements of the law”<sup>57</sup>

First and foremost, unlike precedent tests, the MPC test does not ground insanity in a complete impairment of ability to know or to control, but in the “substantial” lack of these abilities. The expression “substantial lack” is to be understood as an

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<sup>54</sup> Gerber, n. 44, 119.

<sup>55</sup> ALI Overview, ‘The American Law Institute’, URL= < <https://www.ali.org/about-ali/> > accessed on 10 April 2016.

<sup>56</sup> *id.*

<sup>57</sup> Model Penal Code Section 4.01 (1962).

“incapacity of some appreciable magnitude when measured by the standard of humanity in general. [Therefore] substantial is an open-ended concept”.<sup>58</sup> Whereas the M’Naghten rule was criticized for unrealistically requiring complete incapacitation, the ALI test accepts an understanding that “mental disease” is not an all-or-nothing concept, but rather has numerous shades of gray in which one’s abilities might still be seriously compromised. In confirmation of this, the addition of the word “defect” broadens the test to include those conditions that cannot be regarded as either a disease or an illness, such as mental retardation.

As stated above, from a more substantive standpoint, the ALI test combines and updates elements of the M’Naghten cognitive test and the Irresistible Impulse control test. As for the cognitive prong, the ALI test dismisses the verb “know,” and instead adopts the broader term, “appreciate”. According to some authors, the term “appreciate” was introduced so as to include emotional trauma within the rule—in other words, to also allow it to encompass the emotional capacity to perceive the wrongfulness of one’s conduct.<sup>59</sup> Others hold that this broader understanding of the verb “appreciate” is merely ostensible, and that it still refers to a purely cognitive capacity to verbally understand the meaning of one’s conduct.<sup>60</sup>

This stricter cognition-based interpretation is confirmed by the so called “caveat paragraph” of the test, which explicitly rules out “any abnormality manifested only by repeated criminal or otherwise antisocial conduct from the notion of mental disease or defect”.<sup>61</sup> The reference, as has been claimed, is to those categories of subjects whose conditions, even when pathological, are only characterized by moral emotional impairments, as in the case of psychopaths.<sup>62</sup>

Despite being undeniably more flexible and far-reaching in scope (when the MPC test was promulgated, 34 states dismissed older tests and adopted the ALI “substantial capacity” insanity test), today the ALI test has been largely

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<sup>58</sup> See n. 55.

<sup>59</sup> Rita J. Simon & David Aaronson, *The Insanity Defense: A Critical Assessment of Law and Policy in the Post-Hinckley Era* (Praeger 1988).

<sup>60</sup> Goldstein n. 46, 88.

<sup>61</sup> Model Penal Code Section 4.01(b) (1962).

<sup>62</sup> See Ralph Slovenko, *Psychiatry in Law/Law in Psychiatry* (2nd edn, Taylor&Francis 2009), 197.

abandoned. Following John Hinckley's acquittal,<sup>63</sup> members of Congress responded to the public outrage by introducing twenty-six separate pieces of legislation designed to abolish or modify the insanity defense. The insanity defense was not abolished, but the ALI test was discarded in favor of a stricter version which more closely resembled M'Naghten. Congress passed revisions in the defense embodied in the Insanity Defense Reform Act (IDRA) of 1984, which reads:

"It is an affirmative defense to a prosecution under any federal statute that, at the time of the commission of the acts constituting the offense, the defendant as a result of a severe mental disease or defect, was unable to appreciate the nature and quality or the wrongfulness of his acts. Mental disease or defect does not otherwise constitute a defense."<sup>64</sup>

Firstly, the legislation changed the former approach by requiring a "severe" mental disease or defect.<sup>65</sup> The Act also reshaped the cognitive aspect of the insanity defense by replacing "lacks substantial capacity" with "unable to appreciate," so as to delineate the clear separation between a total lack of understanding and partial comprehension. As for the volitional prong, the test responds in particular to the American Psychiatric Association's opinion about the uncertainties surrounding that prong of the insanity defense. As it is written in the APA's statement on insanity,

"The line between an irresistible impulse and an impulse not resisted is probably no sharper than that between twilight and dusk...The concept of volition is the subject of some disagreement among psychiatrists. Many psychiatrists therefore believe that psychiatric testimony (particularly that of a conclusory nature) about

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<sup>63</sup> For a full and detailed analysis of Hinckley's trial in relation to the ALI test, see Bonnie et al. n. 46.

<sup>64</sup> Stephen J. Morse, 'Insanity Defense Reform Act (IDRA)' in B. L. Cutler (ed) *Encyclopedia of Psychology and Law* (Thousand Oaks: Sage Publications Inc. 2013) 374.

<sup>65</sup> This change follows the APA Statement on Insanity Defense. In discussing the definition of mental disease or defect in relation to personality disorders, such as antisocial personality disorder, the APA stated that these people should be held accountable for their behavior, since there is nothing in the psychiatric domain that demonstrates that they are unable to control their behavior. Therefore, the APA suggested, mental disorders leading to insanity verdicts must be as *serious* as psychoses. See American Psychiatric Association, 'Statement on insanity defense' (1983) 140(6) *The American Journal of Psychiatry* 681.

volition is more likely to produce confusion for jurors than is psychiatric testimony relevant to a defendant's appreciation or understanding".<sup>66</sup>

The volitional prong of the test, which excused a defendant who lacked the capacity to control his behavior, was therefore eliminated.

#### IV. THE RATIONALISM BEHIND INSANITY<sup>67</sup>

Insanity tests, as is incontrovertibly evinced by the history of insanity up to its current formulations, are mostly cognition-based. In fact, there is one common element that cuts across virtually all insanity standards. Namely, for a mental disease or disorder to be legally relevant, it must have compromised an agent's intellectual capacity to verbally or instrumentally know or understand the factual, social and moral significance of his conduct, and *therefore* (in some cases, at least) to control his impulses.

That insanity is an intellect-based doctrine can be easily deduced from the traditional model of the culpable agent assumed by criminal law. In Chapter One, we discussed at great length the rationalist traits characterizing the legal paradigm of rationality, which, in its turn, provides the grounding for culpability, and thus criminal responsibility.<sup>68</sup> As we noted earlier, criminal law sees intellect or intellectual powers as the only source of rational decision-making, and behavior. It is the power of intellect that enables us to understand the moral significance of our actions, and to act in accordance with that understanding. It is intellect that makes a person rational. Conversely, a lack or defect of intellect corresponds to a lack or defect of rationality. Therefore, as one commentator noted, insanity exists only in the presence of a lack or defect of rationality.<sup>69</sup>

Put differently, let us assume that, in order to be potentially culpable, a person must possess a degree of intellectual capacity sufficient to know and be influenced

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<sup>66</sup> *Id.*, 685. See also Richard Bonnie, 'The moral basis of the insanity defense' (1983) 69:2 American Bar Association Journal 194, 196-197.

<sup>67</sup> In this Section, I will implicitly refer to a broader understanding of insanity that also encompasses partial insanity, in the sense in which it has been adopted in civil law systems, like that of Italy.

<sup>68</sup> See Part One, Chapter One, Sections III and IV.

<sup>69</sup> Fingarette n. 5, 175-176 ("We say of a person who is insane that he is irrational [...] An insane person has 'lost his reason'").

by the factual and moral meaning of his actions in a given social context and determine his actions accordingly. It then follows that a lack or defect of this capacity, caused by a mental disease or disorder, eliminates or seriously compromises the fundamental feature that makes one able to be held criminally responsible. Considering that, for the law, the only capacity an agent must possess in order to be held criminally responsible is the cognitive one, it follows that legally-relevant pathologies are mostly limited to cognitive diseases and disorders - provided that said conditions are capable of fully or substantially compromising, firstly, the agent's capacity to know or understand what he is doing, secondly, to know or understand that what he is doing is wrong and, lastly, as a possible consequence, the capacity to control his impulses.

The M'Naghten Rule, as one of the most emblematic examples, has largely been qualified as the product of rationalist psychology, in that it relies wholly on the defendant's cognition.<sup>70</sup> It was created in order to draw a distinction between man, a creature endowed with intelligence and whose conduct is determined thereby, and animal behavior.

Let us once again recall Gerber's thought:

“[At the time of the M'Naughten] cognition was seen as the highest function of the personality. Philosophers searching for the Cartesian dregs of the period expressed the notion that the mind [i.e., the location of Reason] controlled bodily behavior like an angel driving a machine”.<sup>71</sup>

The rationalism behind the legal conception of insanity derives from the Post-Enlightenment process of rationalization and objectification of criminal law, which came to be more “act-based” than “guilt-based”, and therefore gradually put aside the more subjectivist aspects of criminal responsibility.<sup>72</sup> Since the Post-

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<sup>70</sup> St. John's Law Review, 'Criminal responsibility and proposed revisions of the M'Naughten Rule' (2013) 32:2(8) St. John's Law Review 247, 250 (“M'Naghten, it is claimed, is a product of a rationalist era, acknowledging only the cognitive or intellectual faculty and does not allow for the incapacity of the will or the influence of the emotions.”).

<sup>71</sup> Gerber n. 1, 30. See also Gerard Gordon, *The criminal law of Scotland* (2nd ed, Edinburgh, W.H. Green & son Ltd. 1978), 348 (quoting Erskin in the 1800 trial of Handfield: “It is agreed by all jurists, and is established by the law of this and every country, that it is the reason of man which makes him accountable for his actions; and that the deprivation of reason acquits him of crime. This principle is indisputable [...]”).

<sup>72</sup> See Part One, Chapter One, Section III.

Enlightenment, criminal law has, indeed, increasingly become a system of norms focused on the evaluation of choices. According to the criteria thereby established, an emblematic criminal agent is one who is able to make an instrumental rational choice based on an evaluation of the costs and benefits to be derived from engaging or not engaging in criminal behavior.

It is worth noting that, despite the fact that both (neuro)psychiatry and the (neuro)behavioral sciences in general have adopted a far-reaching understanding of mental disease, one that also encompasses affective and volitional disorders,<sup>73</sup> criminal law has remained mired in an intellectualist model of mental normalcy, and therefore also of mental abnormality.<sup>74</sup> The rationale underlying this position is purely one of criminal justice policy.<sup>75</sup> Indeed, the current dominant intellectualistic conception of insanity is meant to meet the retributive, deterrent, social control and social security needs of criminal justice.

Starting from social control and security, the histories of legal insanity and psychiatry show that medical and scientific developments surrounding the notion of mental illness have been largely disregarded by the law. Legal thinking has preferred to keep a narrow conception of insanity - and consequently of legally relevant mental illness- precisely because it assumes that only a narrow understanding of insanity can preserve and assure social protection. As Reznek notes, “When M’Naghten was found NGRI in 1843, there was a public outcry. [...] The House of Lords was moved to draw up the M’Naghten Rules defining insanity”.<sup>76</sup> In 1981, Hinckley’s acquittal thanks to the formulation of the ALI’s insanity standard provoked public outcry as well. On that occasion, “President Reagan instructed the Attorney General to propose new legislation to reform the

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<sup>73</sup> See Alan Norrie, *Crime, reason, and history: A critical introduction to criminal law* (Cambridge University Press 1993), 176 (“As the nineteenth century progressed [...] psychiatry increasingly drew upon a natural scientific methodology and a medical model of mental illness in order to explain the incidence and etiology of insanity. Insanity came increasingly to be seen as a product of disease located in the brain which caused the mad behavior. [...] If the ultimate locus of insanity was not in its psychological manifestation but in underlying organic causes, it became possible to conceive of forms of insanity which left the ‘surface’ areas of the psyche, for example the reasoning faculty, relatively unaffected while attaching the ‘deeper’ elements of the will or of the emotions. A lack of reason became one, but only one, symptom of an underlying, causal, mental illness. A man could as a result appear quite rational but still be insane.”).

<sup>74</sup> *ibid.*

<sup>75</sup> *ibid.*

<sup>76</sup> Lawrie Reznek, *Evil or Ill? Justifying the insanity defense* (Routledge 1997), 15.

insanity defence”.<sup>77</sup> These reforms provoked an ill-concealed return to the M’Naghten Rule.

An intellect-based conception of legal insanity is, furthermore, consistent with retributivist and deterrent goals of punishment. Under retributivism, “[t]he criminal law exists to [...] punish those who would or who do choose to do wrong”.<sup>78</sup> The precise intention of punishment is, therefore, to reform a wrongdoer and prepare him to rejoin society whose core values he consciously violated.<sup>79</sup> It follows that only an individual with a solid intellectual capacity is able to make a conscious decision to engage in conduct that rejects his community’s moral norms and, consequently, to appreciate the retributive force of the punishment for his misconduct and ultimately be reformed. Therefore, under a rationalist normative conception of culpability, it makes no sense to punish someone who is not able to comprehend the retributive path of punishment and thus learn from his past wrongs.

By narrowing the insanity defense to encompass only the intellectual domain, we also presumably achieve the utilitarian aim of deterrence and general prevention. From a utilitarian perspective, it is only worth deterring someone who is able to be deterred by the threat of criminal punishment - in other words, one who is able to appreciate the meaning of criminal conduct, weigh the potential punitive consequences of criminal conduct, and therefore, because of this understanding, refrain from engaging in antisocial behavior.<sup>80</sup> This means that only people possessing some intelligential capacities are assumed to be capable of understanding the deterrent intention behind the rules imposed by criminal law, and therefore to fully abide by their dictates. In other words, only intelligent people who are able to be deterred by criminal law rules can find a good reason not to act unlawfully. It goes without saying that insane people are those who are

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<sup>77</sup> *id.*, 16.

<sup>78</sup> Norval Morris, ‘The criminal responsibility of the mentally ill’ in Thomas W. Simon (ed), *Law & Philosophy: An Introduction with Readings* (McGraw-Hill 2001), 443.

<sup>79</sup> Michel Foucault, *Discipline and punish: The birth of the prison* (Vintage Books, A Division of Random House, Inc. 1977) 16 (quoting Mably: “Punishment [...] should strike the soul rather than the body”).

<sup>80</sup> Melinda Carrido, ‘Revisiting the Insanity defense: A case for resurrecting the volitional prong of insanity defense in light of neuroscientific advances’ (2012) 41 *Southwestern Law Review* 309, 314 (“The basis for the M’Naghten Rule stems from the traditional understandings of the retributivist and deterrence goals of criminal punishment”).

unable to be deterred by criminal law rules, because they are unable to grasp those rules' deterrent significance, and therefore cannot be guided by the law.

On the other hand, as we will see in the next Section, a defendant who demonstrates some understanding and knowledge of the factual and social meaning of his misconduct, but who has a morally deviant personality – however pathological- is considered to be totally capable of being influenced and guided by the retributive and deterrent forces of punishment. In other words, an intelligent but emotionally cool defendant is capable of knowing what conduct is required under social, moral and legal rules, and is therefore able to be affected by the deterrent force of legal rules. If he consciously chooses to engage in criminal conduct, it is assumed that he will also be able to understand why his misconduct deserves punishment. It follows that, if he becomes “morally straight,” he will therefore refrain from committing further crimes in the future.

#### V. THE MADNESS OF DEVIANT EMOTIONS: THE CASE OF MORAL INSANITY

Central to the debate on insanity is the difficult issue of moral insanity - a form of insanity affecting subjects suffering from mental diseases or disorders characterized by emotional and affective impairments. The category of moral insanity is difficult for criminal law to qualify and accept. As we will see shortly, criminal law adheres to the most intuitive, commonsense-based view, which tends to qualify emotional impairment as a mere character flaw. As a result, since “morally insane” subjects are seen as consciously deviating from social and moral rules with an evil intent, they can hardly be excused, regardless of whether they are emotionally flawed. To exclude such subjects from responsibility by viewing them as a sort of victims of their own pathologically evil mind would appear utterly socially outrageous.

The first physician to describe moral insanity as a disorder of the moral affections and propensities, without any impairment to the intellectual faculties, was Dr. James Cowles Prichard in the first half of the 19<sup>th</sup> century. According to Prichard's description:

“This form of mental derangement [consists of] a morbid perversion of the feelings, affections, and active powers without any illusion or erroneous conviction impressed upon the understanding: it sometimes co-exists with an apparently unimpaired state of intellectual faculties. [...] Persons suffering under this disorder are capable of reasoning or supporting an argument upon any subject within their sphere of knowledge [...]”.<sup>81</sup>

Prichard’s description suggests a view of people suffering from moral insanity as impaired in their inclinations, temper, habits, moral dispositions and natural impulses, but without any remarkable disorder or defect of the intellect and reasoning faculties, and particularly without any illusion or hallucination.

Elsewhere, Prichard explored the relationship between moral insanity and criminal responsibility:

“It seems [...] to have been the prevalent judgement both of medical and legal writers in this country, that delusion, or as medical writers express themselves, illusion and hallucination constitutes the essential character of insanity, and hence, unless the existence of this characteristic phenomenon should be proved, it would be very difficult to maintain a plea on the ground of insanity in this country, with a view to the removing culpability [*sic*] in a criminal accusation. It would be doubtless of advantage to have an opportunity of resorting at once to a criterion so decisive and intelligible, and in general so easily brought into evidence, if it were only true in point of fact that insanity always involves that particular circumstance which is supposed to be characteristic of it. Unfortunately, the reality is otherwise. I am fully persuaded that the time is not far distant when the existence of mental disorder unaccompanied by illusion or any lesion whatever of intellect, will be generally recognised”.<sup>82</sup>

Pritchard’s prediction has so far proved to be quite wrong. As we have seen, insanity tests do take moral deviancy into account unless it is accompanied by a defect of intellect that makes it impossible to understand and know the moral

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<sup>81</sup> James Cowles Prichard, *A Treatise on Insanity and Other Disorders Affecting the Mind* (Sherwood, Gilbert, and Piper 1835) 12 - 14. Also Cesare Lombroso adhered to Prichard’s theory of moral insanity to complete his theory of the criminal man. Moral insanity, along with atavism and epilepsy, forms a universal trait of criminal subjects. See Cesare Lombroso, *Criminal Man*, Mary Gibson & Nicole Rafter (transl) ( 3rd edn first published in 1884, Duke University Press 2006).

<sup>82</sup> Prichard, *id.* 382.

character of one's action. The concept of moral insanity has now become synonymous with socio-affective disorders, such as Antisocial Personality Disorders (ASPD), narcissistic personality disorders (NPD) and, above all, psychopathy,<sup>83</sup> all of which share the lack or disturbance of the moral emotions and feelings, like regret, affect, remorse, guilt, etc., as well as emotion-related capacities, like empathy. With particular regard to psychopaths, given the uncertainties and controversies that still surround this psychiatric category, it is perhaps unsurprising that there is a long-standing debate concerning whether individuals with psychopathy are "mad" or "bad" – i.e. whether these individuals are mentally ill rather than merely immoral.

The motivation for keeping morally deviant subjects within the scope of criminal responsibility (apart from the controversies surrounding the seriousness of their pathological nature) is threefold. The first reason is social security. Moral deviancy is considered symptomatic only of particularly dangerous personalities, the kind that are very likely to harm society repeatedly. There is consequently a tendency - in criminal law as well as in common understanding- to qualify patients suffering from socio-affective disorders as iconic wrongdoers, as the 'truly' evil individuals who constantly and willingly reject and break the rules of societal coexistence. They are the scapegoats for all of society's ills, the sort of persons from whom we need to be protected.

Moving beyond social security, the second reason for keeping these subjects within the scope of criminal responsibility is that they are presumed to be

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<sup>83</sup> According to the nosographic description contained in the DSM-V, Antisocial Personality Disorder is characterized by a *pervasive pattern* of disregard for the rights of other people, which often manifests as hostility and/or aggression. Deceit and manipulation are also central features. People with Narcissistic Personality Disorder have significant problems with their sense of self-worth, stemming from a powerful sense of entitlement. This leads them to believe that they deserve special treatment and to assume that they have special powers, are uniquely talented, or are especially brilliant or attractive. Their sense of entitlement can lead them to act in ways that fundamentally disregard and disrespect the worth of those around them. As discussed in Chapter Two, psychopathy, on the other hand, is not officially recognized as a personality disorder. It is not even included in the DSM-V, nor is there a unanimous opinion among psychiatrists and psychologists as to whether psychopathy should be qualified as a personality disorder at all. Attempts to define psychopathy as an autonomous kind of personality disorder and provide specific items to identify it have been made primarily by Dr. Robert Hare, who authored the Psychopathy Checklist Revised in 1990. As described in the checklist, psychopathy would encompass traits typical to both ASPD (e.g. lack of impulse control) and NPD (e.g. grandiose sense of self-worth). See Robert Hare et al., 'The Revised Psychopathy Checklist: Reliability and factor structure' (1990) 2(3) *Psychological Assessment: A Journal of Consulting and Clinical Psychology* 338.

perfectly responsive to the deterrent and retributive purposes of punishment.<sup>84</sup> As noted earlier, retributivist theories argue that we should punish wrongdoers because they freely and consciously choose to do wrong. People suffering from moral insanity know that what they are doing is wrong, and they are able to do otherwise (if it suits them). Moreover, their instrumental intellectual capabilities enable them to be influenced by deterrents. They are therefore presumed to refrain from wrongdoing under the threat of imprisonment.<sup>85</sup>

The third and most important reason is that moral deviancy, though pathological, does not meet traditional insanity standards, which are based on a deep-rooted (folk) psychological rationalism that allows criminal law doctrines to admit no relevance for emotional capacity. The tendency to hold morally deviant subjects fully criminally responsible is based on the assumption that emotions and feelings carry little weight in (the ordinary conception of) rational decision-making in moral and social contexts, because their role is obscured by that of cognition.<sup>86</sup>

As we saw in Chapter One, criminal law does not attribute any significant relevance to emotional capacity, since emotions are viewed solely as being the opposite of - and in conflict with- cognition, and therefore rationality. Consequently, if a defendant possesses an intact verbal knowledge of the social and moral significance of his conduct, as well as of its punitive consequences, the fact of whether he also does or does not possess the emotional capacity to feel the moral significance of that conduct does not exclude or diminish his responsibility in any way. Quite the contrary, it might actually form an exacerbating factor that aggravates sentencing.<sup>87</sup>

That emotions and feelings are not considered part of the relevant psychological set of insanity can be easily deduced from the formulations of the insanity tests

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<sup>84</sup> Reznick n. 76, 197.

<sup>85</sup> Psychopaths and, especially, people suffering from ASPD form the highest percentage of prison populations (Psychopaths: 15-25%; ASPD: 60-80 %). See Kent Kiehl & Morris Hoffman, 'The criminal psychopath: History, neuroscience, treatment, and economics' (2011) 51 *Jurimetrics* 355; Henry J. Steadman & Bonita Veysey, 'Providing services for jail inmates with mental disorders' (1997) National Institute of Justice, Research in Brief <<https://www.ncjrs.gov/pdffiles/162207.pdf>> accessed 11 April 2016; Donald Black et al., 'Antisocial personality disorder in incarcerated offenders: Psychiatric comorbidity and quality of life' (2010) 22(2) *Annals of Clinical Psychiatry* 113.

<sup>86</sup> See Fingarette n. 5, 144 (referring to the M'Naghten Rule: "The test deals with only one of the mind's tripartite functions- cognition, volition and affect-, i.e. the cognitive functions").

<sup>87</sup> See Stephen J. Morse, 'Psychopathy and criminal responsibility' (2008) 8:1 *Neuroethics* 207, 207-208.

examined above. As for the Italian - as well as other European - systems, a lack of emotional capacity is not even minimally taken into account in the wording of insanity standards, which only include cognitive and volitional prongs. In the Italian system, the irrelevance of emotions and feelings is further confirmed by the provision contained in Article 90 of the Italian Penal Code, which, as previously mentioned, expressly rules out any relevance of emotions and passions as part of an assessment of *imputabilità*.<sup>88</sup> As we shall see in the next section, Article 90 was introduced to keep crimes committed in the heat of passion within the scope of criminal responsibility. However, it ended up going beyond that purpose, establishing the total exclusion of the relevance of *any* kind of emotional state.<sup>89</sup> Therefore, neither the presence *nor the absence* of emotions are considered as part of an assessment of insanity.

As noted earlier, Italian courts do now seem to attribute some relevance to psychopathies and socio-affective disorders in general as part of (total or partial) insanity defense.<sup>90</sup> However, this recognition is only theoretical. On the one hand, all personality disorders (“psychopathies”)<sup>91</sup> *are* now indicated as suitable conditions for insanity pleas, the same as mental diseases *stricto sensu*.<sup>92</sup> On the other hand, personality disorders are only able to lead to insanity verdicts provided that they eliminate or seriously compromise a defendant’s cognitive or volitional capacity (as described above). Therefore, since socio-affective disorders are characterized by integrity of intellectual faculties (patients belonging to these categories are sometimes even smarter than average and are often able to control their behavior), they perfectly meet the mental requirements for criminal responsibility. It follows that, since socio-affective disorders do not necessarily

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<sup>88</sup> N. 23.

<sup>89</sup> The rationale of Article 90 is entirely grounded in a mechanistic conception of emotions and passions, for which emotions and passions are able to override reason and control. See *infra* n.114.

<sup>90</sup> See Section III.A.2.

<sup>91</sup> See n. 33.

<sup>92</sup> Admittedly, even if the *Corte di Cassazione* has recognized that all personality disorders are potential eligible conditions for a partial or total insanity defense, the category of ASPD still raises great controversy among psychiatrists. Those who take a stricter position state that people with ASPD are entirely accountable for their actions, or that, at the most, they might meet the requirements for a partial insanity defense. See, for example, Ugo Fornari, *Trattato di psichiatria forense* (UTET 2008), 309-310. According to others, instead, they could even be considered as totally insane. See Lucio Bini & Tullio Bazzi, *Trattato di Psichiatria, Psichiatria clinica Vol. II* (Vallardi 1974).

compromise intellectual faculties but only emotional ones, they are *de facto* incapable of functioning as an insanity defense.<sup>93</sup>

As for the U.S. system, while standards like the M’Naghten rule do not take emotional/ moral insanity into consideration at all, the MPC seems to grant some relevance to the lack of emotional capacity. As noted above, however, this acceptance is purely ostensible. As Laura Raider observes,

“while the notion of appreciation of criminal conduct is distinguishable from the more narrow conception of knowing right from wrong contemplated by the M’Naughten Rule, the ALI model still emphasizes the offenders’ cognition of the criminality of their acts. In practice, the ALI model continues to rely upon instrumental reasoning capacities without fully incorporating the critical role that emotions play in the context of decision-making and judgments. The formulation of this model rests on a limited understanding of how emotions figure into the decision-making process”.<sup>94</sup>

All in all, the determination of criminal responsibility, in both criminal law theory and actual practice, turns on the actor’s solely cognitive capacity for rationality. As Schopp observes:

“Th[e] requirement [of emotional awareness], however, would seem to exculpate the cold or vicious criminal who victimizes innocent people without experiencing sympathy or remorse. Yet, the insanity defense certainly is not intended to exculpate such criminals. Rather, these are just the people that the criminal law – and the prison system – are designed to deter”.<sup>95</sup>

The reference to psychopaths and, more generally speaking, to subjects suffering from socio-affective disorders is crystal clear. This is precisely the rationale that moved the drafters of the MPC to add a second paragraph to Section 4.01 on insanity (“the caveat paragraph”), specifying that the notion of mental disease or

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<sup>93</sup> See Maria Teresa Collica, *Vizio di mente: Nozione, Accertamento, e Prospettive* (Giappichelli Editore 2007), 79 (“In genere, l’ASPD e’ considerato irrilevante ai fini del riconoscimento della capacita’ di intendere e di volere, salvo che sopravvenga in [un] contest psicotico”). See also Cass. pen. (1) n. 52530/2014.

<sup>94</sup> Raider n. 47, 289-381.

<sup>95</sup> Robert Schopp, *Automatism, insanity, and the psychology of criminal responsibility* (Cambridge University Press 1991) 33.

defect does not include repeated manifestations of criminal or otherwise antisocial conduct. As noted earlier, this provision was introduced with the explicit purpose of excluding psychopaths and, according to some authors, also patients suffering from socio-affective disorders in general from the range of eligible candidates for insanity defense.

Bearing these theoretical insights in mind, let us now consider the following fictitious example based on a notorious murder occurred in Italy in recent times.<sup>96</sup> Toby and Karl, two graduate students at one of the country's most highly regarded universities, are friends. They have known each other for a while. They hang out together, go to parties, night clubs, and so on. Both of them come from wealthy families and neither lacks anything in life. One day, Toby invites Karl to his apartment for a drink. When Karl gets to Toby's place, he sees that there are many bottles and a video camera on the table. They drink for hours, until they both get quite, but not completely, drunk. All of a sudden, Toby goes to the kitchen with the excuse of getting another bottle of wine. When he comes back into the living room, he is actually holding a hammer. Without any plausible reason, he begins to violently strike Karl on the head. Karl is on the floor, struggling. The torture goes on for two hours. Incredibly, Karl is in agony, yet still alive. He begs Toby to stop, but Toby is dedicated to his task, and all he can say is, "You have to die, you have to die!" As Karl is refusing to die, despite all the torture he is undergoing, Toby goes back to the kitchen and gets a knife. He returns to the living room and stabs Karl once, straight in the heart. Karl is dead. The video camera in the living room has recorded everything, Toby has left it on with the purpose of recording the killing. That night, Toby sleeps with Karl's corpse. The next day, Toby goes to class normally, as if nothing has happened. A couple of days later, Toby gets arrested. After denying his involvement in Toby's homicide for some hours, he finally confesses and narrates, in extreme and careful detail, the dynamics of the homicide. He had planned the homicide some days before, because he had wanted to see how it felt to kill someone.

Toby is perfectly aware of what he did, he can correctly describe the legal

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<sup>96</sup> I am referring to Luca Varani's murder by Manuel Foffo and Marco Prato, committed in Rome in March 2016. See F.Q., 'Luca Varani, uno dei fermati: "Volevamo uccidere per vedere che effetto che fa' *Il Fatto Quotidiano* (7 March 2016), URL=  
< <http://www.ilfattoquotidiano.it/2016/03/07/luca-varani-fermati-per-lomicidio-volevamo-uccidere-per-vedere-che-effetto-fa/2524672/> > accessed 20 April 2016.

proscriptions and the prospect of punishment. He knows what killing a person means. He knows it is socially, morally, and legally wrong. However, he strongly denies any responsibility for what he did, saying he had had no other choice, because Karl had allegedly provoked him. It turns out that Toby suffers from a serious ASPD with psychopathic traits. Despite the fact that Toby's verbal and intellectual knowledge are just perfect, he seems clearly to lack any sort of emotional sense of guilt or remorse for his behavior. In other words, he is emotionally flat. Karl's suffering, in its immediate emotional-moral relevance, is beyond his ken. Toby's emotional/moral capacity is clearly impaired.

Although it appears clear that Toby's conditions were impairing his mental faculties at the time of the crime he would nonetheless, from a legal viewpoint, be held fully responsible for Karl's murder. His capacity for instrumental reasoning was perfect at the time of the murder. He coolly and carefully planned the killing, lured the victim to his apartment on false pretenses, consciously went to the kitchen to get a knife, and repeatedly struck the victim before he died. Moreover, he displayed awareness that his conduct was morally and socially reprehensible. All in all, in the eyes of the law, his complete, cold-blooded disregard for Karl's life is seen as the result of an evil - rather than a pathological- mind. By and large, Toby would be found guilty of first degree murder and sentenced to life imprisonment or, in some jurisdictions, the death penalty.

It does not end there. Apart from being found fully responsible, people like Toby could also be considered socially dangerous. Indeed, moral and emotional deviancy, while it is fully compatible with the current notion of criminal responsibility, is seen rather as a synonym of social danger. Social dangerousness generally leads to the adoption of social defense measures - like psychiatric hospitalization- to keep these subjects away from society until they no longer pose a social danger. While this could be the case in some systems, such as Italy, in the U.S. the legal status of psychopaths and ASPD patients as fully responsible agents does not envisage involuntary civil commitment. Therefore, once they have served their sentences, these subjects might set free to go back out into society.<sup>97</sup>

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<sup>97</sup> See Morse n. 87, 210-211.

## VI. THE DILEMMA OF THE LACK OF SELF-CONTROL

The second major issue regarding the substance of insanity tests concerns the autonomous relevance of the volitional prong, also known as lack of self-control. The volitional prong is certainly more problematic than the cognitive one. Indeed, the cognitive prong is both conceptually and epistemologically sound, in that it only requires possession of the ability to know, understand, and appreciate facts about the world—that is, being in touch with reality - at the time of the crime.

The volitional prong is, on the other hand, both conceptually and epistemologically troublesome. Conceptually speaking, it is not clear what (in)capacity for self-control actually means, nor is there a unanimous consensus about it among philosophers, legal scholars, or even psychiatrists. Unlike cognitive (in)capacity, volitional (in)capacity results in a doubling of the personality, meaning that normality and abnormality co-exist in the same person, and it is incredibly difficult to conceptualize a dividing-line between them.<sup>98</sup> This inevitably leads to conceptual confusion between responsibility and a lack of thereof.

Let us examine the major reasons for the skepticism surrounding the issue of whether lack of self-control should be taken into account as an autonomous prong of insanity from an epistemological perspective. These range from difficulty in assessing and quantifying self-control, to difficulty in differentiating lack of self-control from poorly planned or impulsive acts. Also, the skepticism towards the volitional prong of insanity tests is influenced by society's hesitancy to excuse the types of offenses and psychiatric impairments that might lend themselves to an insanity defense based on of lack of self-control alone.

In terms of the controversy surrounding the volitional prong issue, the laws governing legal insanity differ greatly among Western legal systems. In Continental Europe, all insanity tests include both cognitive *and* volitional components, to be verified independently and autonomously from one another.<sup>99</sup>

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<sup>98</sup> A remarkable attempt has been made by Michael Moore, who tried to provide a folk-psychological account of volitional capacity and excuse; see Michael Moore, 'The neuroscience of volitional Excuse' in D. Patterson (ed), *Law and Neuroscience: State of the Art* (Oxford University Press 2014 - forthcoming).

<sup>99</sup> See, for example, Article 20 CP [Esp]: "El que al tiempo de cometer la infracción penal, a causa de cualquier anomalía o alteración psíquica, no pueda comprender la ilicitud del hecho o actuar

As for the substance of volitional incapacity, there are different interpretations. Some of these view volitional incapacity as an autonomous prong, while others link it to and infer it from the cognitive one.

Focusing on the Italian system, Article 85 of the Italian Penal Code provides that, in order for an agent to be criminally responsible, he must be in possession of *both* cognitive and volitional capacities. The lack of either of the two is potentially apt to lead to a judgment of non-responsibility. This means that, in line with the general tendency in Continental Europe, volitional capacity forms an autonomous prong of insanity. Therefore, as can be derived from Articles 88 and 89 of the Italian Penal Code., insanity (both total and partial) can potentially be pled when it is proven that a defendant could not control himself at the time of the crime.

By definition, volitional capacity signifies the capacity for self-determination in keeping with one's own motivating impulses, as well as the power to control impulses and choose to act for the best reason when faced with conflicting reasons.<sup>100</sup> According to the dominant interpretation, however, volitional capacity is a natural consequence of cognitive capacity. In other words, if cognitive capacity signifies an awareness/ knowledge/appreciation of the social meaning of one's conduct, volitional capacity forms a *quid pluris*, that is, the capacity to make a conscious choice whether or not to engage or not engage in a given conduct in light of its factual and social meaning. According to this interpretation, then, the volitional capacity to control one's own impulses is linked to the prior cognitive capacity to know the meaning of one's actions. As observed earlier, this relationship is usually expressed using the Latin expression *nihil volitum nisi precognitum*.

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conforme a esa comprensión”; Article 122-1[Fr]: “N’est pas pénalement responsable la personne qui était atteinte, au moment des faits, d’un trouble psychique ou neuropsychique ayant aboli son discernement *ou* le contrôle de ses actes”; Article 20 [Port]: “È inimputável quem, por força de uma anomalia psíquica, for incapaz, no momento da prática do facto, de avaliar a ilicitude deste ou de se determinar de acordo com essa avaliação”; Section 20 [StGB]: “Ohne Schuld handelt, wer bei Begehung der Tat wegen einer krankhaften seelischen Störung, wegen einer tiefgreifenden Bewußtseinsstörung oder wegen Schwachsinn oder einer schweren anderen seelischen Abartigkeit unfähig ist, das Unrecht der Tat einzusehen *oder* nach dieser Einsicht zu handeln”. (The emphasis is mine).

<sup>100</sup> Giovanni Fiandaca & Enzo Musco, *Manuale di diritto penale. Parte generale* (5th edn, Giappichelli 2010), 329 (“La capacità di volere consiste nel potere di controllare gli impulsi ad agire e di determinarsi secondo il motivo che appare più ragionevole o preferibile in base ad una concezione di valore”).

The autonomy of the volitional prong has been strongly challenged by both criminal law theorists and forensic psychiatrists. Indeed, some authors, approaching the issue from a *de iure condendo* perspective, call for the elimination of the volitional prong of *imputabilità*, and, as a consequence, of insanity tests as we know them, which would be modified to evaluate only cognitive (in)capacity.<sup>101</sup> The reason for this is that volition, seen as the independent capacity to control one's behavior in total isolation from cognition, is an entirely legal-formalistic, fictitious and artificial concept. The only purpose it serves is that of drawing a line dividing those who are responsible from those who cannot be held responsible. However, volitional capacity, as such, is just empirically indemonstrable.<sup>102</sup>

In the United States, the control test has undergone a quite different process. As noted earlier, the M'Naghten test is solely cognitive, in that it roots the grounds for insanity in the possession of the cognitive capacity to know the nature and quality of one's act, and to know that the act is wrong. Although a volitional prong is not explicitly provided, it is implicitly derived from the cognitive one. As Gerber observes, "[the M'Naghten] rule assumes that if an individual 'knows' right from wrong, his rational powers are intact, and therefore he is capable of governing his conduct".<sup>103</sup> Similarly, Snyder claims: "an offender who knows what he does, knows that it is wrong, and coolly and carefully prepares what he does, can and does control his action right up to the moment of commission".<sup>104</sup>

As discussed above, the M'Naghten rule has been harshly criticized by criminal law scholars and practitioners, who emphasize the extreme narrowness of the cognitive test, which does not take into account further and crucial mental capacities, in particular the volitional one. These critiques have led some U.S. jurisdictions, in an effort to counter the excessive restrictiveness of the

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<sup>101</sup> Francesco Introna, 'Se e come siano da modificare le vigenti norme sull'imputabilità' (1999) *Rivista Italiana di Medicina Legale* 716.

<sup>102</sup> See Luigi Tramontano, *Capacità di intendere e di volere del soggetto agente: Percorso ermeneutico tra dato normativo, dottrina e scienza psichiatrica alla luce della sentenza della Cassazione n. 9136/2005* (Halley 2006), 28.

<sup>103</sup> Gerber n. 1, 30.

<sup>104</sup> Snyder, n. 41, 209. See also Kuh, n. 52, 782 ("As man is an "integrated personality," his knowledge, his will, and his ability to act are all intertwined. The word "know," as used in McNaughton, can be taken to mean not only the ability to perceive by use of the senses and intellect, but the ability to guide or control one's action in the light of this perception.").

M’Naghten Rule, first to the adopt the Irresistible Impulse Test, and later the ALI test.

The Irresistible Impulse Test<sup>105</sup> grounds an insanity defense solely in the capacity for self-control. In other words, the test does not require that a defendant had or did not have the capacity to know that his conduct was wrong. It only takes into account whether he was unable to choose not to act, as the result of an “involuntary bodily act without the concurrence of a mind directing it”.<sup>106</sup> In other words, the governing power of his mind must have been so compromised that resulting actions were beyond his control. Of course, if a defendant does have the capacity for self-control but simply fails to exercise it, he can be suitably punished by criminal law.

The Irresistible Impulse Test has been contested from both sociolegal and scientific perspectives. From a sociolegal standpoint, it poses the risk of vastly expanding the scope of the insanity defense, which could potentially be raised by anybody who simply claims to have lacked the capacity to control his impulses at the time of his crime. From a scientific standpoint, the test has also proven to be quite flawed, for two main reasons. Firstly, it only takes into consideration sudden impairments of volitional capacity, while failing to take into account cases where a loss of volition takes place not suddenly, but gradually,<sup>107</sup> as in schizophrenia. Secondly, it implies a total impairment of volitional capacity, which is impossible to prove. For these reasons, the test has been largely abandoned.

The desire for a better version of the Irresistible Impulse Test, in combination with a major effort to introduce a volitional test in addition to a cognitive one, led to the introduction of the ALI’s insanity test, which defines the capacity for self-control as “the capacity to conform behavior to what the law requires”. Under this new definition, an irresistible impulse occurs when an individual cannot, or finds it impossibly difficult, to do as the law requires he should, regardless of whether or not he knows he should behave as the law prescribes.

As we have observed, however, public outcry after the verdict in *United States v.*

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<sup>105</sup> See *Commonwealth v. Rogers* [1844] 7 Met. 500, 502; *Parsons v. State* [1887] 81 Ala. 577, 2 So. 354; *Davis v. United* [1897] 165 U.S. 373, 41 L. Ed. 750, 378.

<sup>106</sup> *Commonwealth v. Rogers*, 502.

<sup>107</sup> Gerber n. 1, 38.

*Hinckley*<sup>108</sup> led to subsequent legislation that narrowed the insanity defense by removing the volitional defense theory. On that occasion, the American Psychiatric Association's statement argued that volitional tests may be unnecessary, because defendants who meet the exculpatory criteria set forth in a volitional test will usually meet the exculpatory criteria for a cognitive impairment test as well.<sup>109</sup> In the wake of that statement, today only a few U.S. jurisdictions continue to employ the control test. The vast majority of them remain mired in a view that the only viable basis for a plea of insanity is a mental disorder that has led to cognitive impairment, resulting in an incapacity to know, understand, or appreciate the factual, moral, social, or even legal significance of one's conduct. Lack of self-control is assessed indirectly, as a possible further consequence of cognitive or rationality defects. Therefore, if an individual knows right from wrong, his rational powers are intact and it follows that he is capable of governing his own conduct.

The volitional prong of insanity test has also been the subject of severe criticism on the part of American criminal law scholars. According to Fingarette, for example, the volitional test is utterly misleading, given that there is no such a thing as a capacity for self-control independent from the capacity for rationality. Rather, Fingarette explains, the lack of capacity to resist an impulse, and thus conform one's conduct to what the law prescribes, is not a matter of self-control, but rather one of having the "mental capacity to elect rationally which act to perform".<sup>110</sup> In other words, it is a matter of rationality. In brief, the lack-of-control requirement is nothing but an additional and alternative statement of lack of rationality, that is, a lack of cognitive capacity. Fingarette's position is entirely shared by Stephen Morse, who is a firm opponent of control tests. Like Fingarette, Morse also claims that the capacity for self-control is only a matter of rationality. A lack of control is therefore nothing more or less than a rationality defect. As he vigorously claims:

"We have a much less adequate conceptual and empirical understanding of lack of control than of lack of rationality. Control or volitional tests for legal insanity

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<sup>108</sup> *United States v Hinckley, Jr* [1981] 525 F. Supp. 1342. See Section III.B. 2.

<sup>109</sup> American Psychiatric Association n. 65, 685.

<sup>110</sup> Fingarette n. 5, 242.

therefore present a complicated case. If the defendant is sufficiently irrational to satisfy the requirements of a cognitive test, then there is no need to resort to a control test. Consequently, it appears that a control test is necessary only when the disorder does not impair rationality, but instead appears to deprive the defendant of the ability to control his behavior. [...] [I]n virtually all cases in which a defendant presents a plausible claim for a pure control excuse, careful analysis demonstrates that the claim collapses into an irrationality claim and should be adjudicated on that basis. In sum, fair criminal law does not require a control or volitional test for excuse [...]”.<sup>111</sup>

All in all, looking back at the systems we have analyzed, it is apparent that the volitional prong of insanity testing is a topic surrounded by great uncertainty. This is because it is not yet exactly clear what lack of self-control means, especially when lack of self-control is legally relevant in terms of excusing conduct. In other words, it is not clear when a defendant *can't* resist an impulse or simply *won't* resist an impulse. Consequently, many scholars and jurisdictions seem to prefer the view that an incapacity for self-control is purely a product of a rationality defect. Therefore, it is only when the defendant's rationality - in other words, the defendant's cognitive capacity - is so impaired as to make him act in a way that is out of touch with reality at the time of the crime that can he be presumed incapable of controlling his conduct.

## VII. LACK OF CONTROL AND EMOTIONAL IMPAIRMENT

If lack of self-control can ultimately provide grounds for an insanity defense

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<sup>111</sup> Stephen J. Morse, 'Diminished rationality, diminished responsibility' (2003) 1 Ohio State Journal of Criminal Law 289, 296. See also Jerome Hall n. 48, 213 ("The second point that I think we must hold on to is the relationship between intelligence and the control of conduct. If we look about us -and visualize the magnificent structures of science and legal systems and ethics, we attribute these great achievements to man's capacity for thought, to human understanding. Can we then allow psychiatrists or any other specialists to persuade us that human understanding has no effective relationship to the commission of the serious harms that are the concern of criminal law? It seems to me that we should ask for evidence and a great deal of evidence before we accept the irrationalism that one's reason may be unimpaired and that nonetheless it exercises no control over such conduct". *Contra* Michael Corrado, 'The Case for a Purely Volitional Insanity Defense' (2009) 42 Texas Tech. Law Review 481, 502 ("Recent studies have shown that the line between those who can't [...] and those who won't [...] can be very clear indeed. [T]hose who advanced [the contrary claim] should be a little red-faced [...] especially if their argument was that the possibility of abuse was too great").

only when it is attached to a cognitive defect, what, then, is the legal relevance of an incapacity for self-control that is linked to *emotional impairments*? This latter issue is particularly complex, and is also further complicated by the fact that the relationship between emotion and self-control is differently framed in different systems. By and large, the lack of capacity for self-control arising from emotional impairment hardly ever leads to an insanity defense. Instead, it mostly gives rise to mitigating circumstances that lead to milder penalties. To get a better idea of the situation, let us compare how emotion and volition are legally framed in the Italian and the U.S. systems.

As we can derive from Italian provisions, when the lack of self-control is due to an emotional disturbance, this does not affect one's *imputabilità* at all. As we saw above, Article 90 of the Italian Penal Code explicitly states that emotional or passionate states neither exclude nor diminish the substantial mental capacity (*imputabilità*).<sup>112</sup> Article 90 CP contains a presumption of impossibility regarding the fact that emotions and passions could result in a mental disease or disorder, even if they can affect, more or less intensely, one's mental lucidity in terms of impulse control. As commentators note, the criminal/policy rationale for the exclusion of emotional states – as we can read in the preparatory works to the Italian Penal Code – was to avoid that “any oddity of temperament, or any minimum sort of nervousness, could mitigate responsibility”.<sup>113</sup> In other words, Article 90 was introduced in the Italian Penal Code with the specific aim to prioritize the domain of the intellect over that of emotions or passions.<sup>114</sup>

If emotions and passions are generally not relevant grounds for excuse, and thus for criminal (non)responsibility, they still have a bearing on sentencing. In this

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<sup>112</sup> See n. 23. Similarly, for example, the French system rejects so-called “*contrainte morale interne*” (trad: inner moral compulsion), or, in other words, the kind of compulsion caused by irresistible impulses such as emotions, passions, etc., as relevant factors for excluding or diminishing criminal responsibility. The only case in which passions or emotions can be considered as excusing or mitigating factors is when it is proved that the defendant also suffered from a cognitive impairment (“*démence*”). However, in that case, a defendant would raise an insanity plea, not a “*contrainte morale*” plea. See Patrick Canin, *Droit pénal général* (Hachette Education 2015), 107 (“*La contrainte morale interne résulte des passions, émotions ou des convictions philosophiques, religieuses ou politiques. Contrairement à la contrainte morale externe, elle n’est pas juridiquement prise en considération. Elle ne constitue pas une cause d’irresponsabilité pénale [...]*”).

<sup>113</sup> See *Lavori Preparatori del Codice Penale e del Codice di Procedura Penale, Vol.V, Parte I*, (Tipografia delle Mantellate, Roma, Anno VII 1929), 142

<sup>114</sup> See Mantovani n. 21, 17. See also Giovanna Amato, ‘Diritto Penale e Fattore Emotivo: spunti di indagine’ (2013) 2 *Rivista Italiana di Medicina Legale* 662.

respect, Article 133 of the Italian Penal Code provides that, once responsibility has been assessed, the judge must consider a series of elements related to both the crime and the perpetrator in order to determine appropriate sentencing. Among other factors, the judge must consider the “degree of *dolus* and the seriousness of *culpa*”.<sup>115</sup> Depending on whether or not the defendant acted under an emotional influence, the judge determines if he acted with *dolus intentionalis* or *dolus impetus*. The difference between *dolus intentionalis* and *dolus impetus* lies precisely in the time frame between the criminal decision and the criminal act.

*Dolus intentionalis* is generally characterized by a sufficient amount of time between the moment in which the agent decides, deliberately and coolly, to commit the crime and the moment in which he acts accordingly. It is not necessarily synonymous with premeditation, but what counts is that the agent has a sufficient amount of time to make and execute his decision in a cold and rational way. *Dolus impetus*, on the other hand, is characterized by an emotional upheaval which leads the agent to act impulsively. Therefore, the decision to commit a crime arises suddenly and is immediately executed without any time interval between the criminal decision and its execution. Given that criminal law holds the view that a person who commits a crime under the influence of emotion is less culpable than a person who acts calmly and deliberately, crimes committed with *dolus impetus* lead to a sentencing reduction. Furthermore, emotions and passions are considered in the attenuating circumstance provided by Article 62 n. 2 of the Italian Penal Code, i.e. that of having acted upon rage caused by an unfair provocation.

At first glance, one could say that emotions do have an influence on the outcome of a judgment, in that they are considered during the evaluation of the agent’s *mens rea* at the time of the crime. Technically speaking, however, this means that an emotional impairment leading to a lack of self-control is mostly considered as a circumstance to be taken into account for sentencing, but not for the assessment of criminal responsibility. In other words, unlike volitional impairments linked to cognitive defects, when a person lacks control due to an emotional breakdown, this circumstance is barely even considered within the assessment of mental

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<sup>115</sup> Art. 133 CP (Ita): “Nell’ esercizio del potere discrezionale [...] il giudice deve tener conto della gravita’ del reato desunta: [...] 3) dalla intensita’ del dolo o dalla gravita’ della colpa [...]”.

capacity (*imputabilità*) at the time of the crime. Rather, it is evaluated as a factor related to *mens rea*, to be only considered for the purposes of punishment.

In 2005, the Italian *Corte di Cassazione* accepted that, in exceptional circumstances, emotional impairments can influence one's capacity for self-control - and therefore responsibility- but only provided that they are symptomatic of a mental disease or disorder, and result in such total mental derangement as to paralyze one's inhibitory powers.<sup>116</sup> Despite this ruling, subsequent judicial decisions still appear to be *de facto* reluctant to accept such a view, continuing to recognize volitional incapacity only if it is linked to cognitive defects.

Recent *Corte di Cassazione*'s decisions involving insanity and personality disorders that are characterized by problems in emotional and behavioral control (e.g. Disruptive Disorder and Impulse-Control Disorders such as Intermittent Explosive Disorder) still reflect a general tendency to reject insanity pleas in these sorts of cases.<sup>117</sup> Also the courts are reluctant to attribute any relevance to 'acting out' behaviors for the purposes of insanity. This is due to the fact that, despite being transient mental perturbations, they do not have a pathological cause. Instead, they are simply the product of emotional and passionate states, and therefore fall within the range of mental normality.<sup>118</sup> This demonstrate that courts are still mired in the view that when a defendant did not control himself yet was perfectly conscious of what he was doing, this rarely justifies the granting of an insanity defense.

Furthermore, there is still debate among legal scholars about if, and to what

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<sup>116</sup> See Section III.A.2.

<sup>117</sup> See, for example, Cass. pen. (6) n. 43285/2009, CED Cassazione Penale (2009) (“[...] le diagnosi di "personalità borderline" [...] pur avuto riguardo alle manifestazioni di "disturbi misti delle capacità scolastiche", alla "immaturità affettiva, impulsività, scarsa tolleranza alle frustrazioni, difficoltà ad esprimere verbalmente sentimenti ed intenzioni", "difficoltà a leggere in modo equilibrato le diverse situazioni" [...] tale novero di disagi psichici [sono] privi di quella idoneità causale ad incidere radicalmente (ex art. 88 c.p.) o grandemente (ex art. 89 c.p.) sui processi di intelligenza e volontà”); Cass. Pen. (1) n. 17835/2009, CED Cassazione Penale (2009).

<sup>118</sup> See Cass. pen. (3) n. 22834/2003 (2004) 4 *Rivista Italiana di Medicina Legale* 820; Cass. pen. (1) n. 9701/1992, n. 9701, *unpublished*; Cass. Pen. (1) n. 7315/ 1995 (1996) Cassazione Penale 2573 (“Ed è per tale motivo che le cosiddette reazioni “a corto circuito”, siccome ricollegata a condizioni di turbamento psichico transitorio non dipendente da causa patologica bensì emotiva o passionale, non sono da ricomprendere fra quelle che diminuiscono od eliminano la imputabilità”). *Contra, ex plurimis*, Cass. Pen. (1) n. 5585/1997 (1997) C.E.D. Cassazione Penale (“Le reazioni a corto circuito”, in determinate situazioni, possono costituire manifestazioni di una vera e propria malattia che incide «sull'attitudine della persona a determinarsi in modo autonomo, con possibilità di optare per la condotta adatta al motivo più ragionevole di resistere, quindi, agli stimoli degli avvenimenti esterni”).

extent, a lack of self-control due to emotional breakdowns should be considered suitable grounds for an insanity plea. Some scholars do support the *Corte di Cassazione*'s 2005 interpretation of Article 90 in relation to volitional incapacity, according to which control impairments do matter, but only when they are the result of a serious pathological condition.<sup>119</sup> Others maintain that non-pathological episodic emotional impairments - such as acting-out episodes- should also count as grounds for insanity, if it is proven that they completely obscured the person's capacity to control his impulses. According to the latter group, the presence of Article 90 in the Penal Code is in clear contrast with the most recent scientific advances involving the role of affective states in governing and informing self-control. They believe that this Article should be simply eliminated.<sup>120</sup>

The relationship between lack for self-control and emotion does not carry much weight in the U.S. system either. As we have observed, U.S. criminal law is often insensitive to whether a defendant was or was not in control at the time of the crime, unless this lack of control was the result of a cognitive defect. However, there are few cases in which criminal law allows for mitigation due to lack of self-control resulting from an emotional breakdown. Among these cases, the most emblematic ones are the common law's Heat of Passion and the MPC's Extreme Emotional Disturbance (EED) mitigating conditions. Both doctrines constitute specific forms of diminished capacity,<sup>121</sup> in its affirmative partial excuse defense variant,<sup>122</sup> to reduce murder to manslaughter. Therefore, they bring substantially lower penalties.

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<sup>119</sup> See Collica n. 93, 90-95.

<sup>120</sup> *ibid.*

<sup>121</sup> Once again: The diminished capacity defense in Anglo-American systems and, especially, in the United States, takes on a significantly different meaning compared to the one generally adopted by Continental European systems. Indeed, while in continental Europe the diminished capacity defense constitutes a milder version of the insanity defense - it is a partial insanity defense- in common law systems, this doctrine is not related to insanity defense.

<sup>122</sup> See Stephen J. Morse, 'Undiminished confusion in diminished capacity' (1984) 75(1) *The Journal of Criminal Law and Criminology* 1; Stephen J. Morse, 'Diminished Capacity' (2002) *Encyclopedia of Crime and Justice*, URL= <[http://www.encyclopedia.com/topic/Diminished\\_Capacity.aspx](http://www.encyclopedia.com/topic/Diminished_Capacity.aspx)> accessed 13 April 2016. According to a classification made by Morse himself, the other variant of the diminished capacity doctrine is the *mens rea* variant. Under the *mens rea* variant, "mental abnormality can potentially negate *mens rea* primarily in cases in which the abnormality is quite severe and produces a cognitive mistake" - that is a mistake on one of the material elements of the relevant offence. For example, take the modern doctrine of "mental illness negating an element of the offence", as in MPC Section 4.02, which allows the defendant to provide evidence of mental disease or disorder to negate an element of the crime charged- almost always the *mens rea* element- and therefore to ask for exculpation or, far more often, for a conviction of a less serious crime or degree of crime than the one originally charged. *Contra* Paul Robinson, 'Abnormal

Under the Provocation/ Passion partial excuse, the defendant must demonstrate that (a) he was adequately provoked, (b) as a direct result of said provocation, he said provocation, he became emotionally charged such that he lost self-control, (c) not enough time to “cool off” passed between provocation and killing, and (d) he did not, in fact, cool off prior to killing his victim(s).<sup>123</sup> Emotional dysfunction and loss of self-control form the core mental requirements of the Heat of Passion doctrine.

The EED<sup>124</sup> is a codified and expanded version of the Heat of Passion doctrine”,<sup>125</sup> which – despite its greater narrowness – still remains the most largely mitigating doctrine adopted by U.S. jurisdictions.<sup>126</sup> Like the Heat of Passion doctrine, the EED doctrine allows that murder be reduced to voluntary manslaughter if the defendant, due to an extreme emotional breakdown, acted in an uncontrollable rage. Unlike the Heat of Passion, however, the core component of the mitigation is that the killing must have been committed “under the influence of an extreme emotional disturbance for which there is a reasonable explanation and excuse”, *regardless of whether the defendant was provoked or not*.<sup>127</sup> Therefore, “any affective experience sufficient to disable a person’s ‘usual

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Mental State Mitigations of Murder – The U.S. Perspective’ in Alan Reed & Michael Bohlander (eds), *Loss of Control and Diminished Responsibility: Domestic Comparative, and International Perspectives* (Ashgate 2011), 291 (claiming that this mitigation is actually misleadingly referred to as diminished capacity or partial responsibility, in that it only negates the existence of an element of the crime but does not indicate reduced culpability or responsibility).

<sup>123</sup> See Reid Griffith Fontaine, ‘Adequate (non)provocation and heat of passion as excuse not justification’ (2009) 43(1) University of Michigan Journal of Law Reform, URL=< [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1087862](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1087862)> accessed 21 April 2016. I shall not explore the issue of whether heat of passion is a justification or excuse, as it goes beyond the scope of the present work. Also, I shall not make an analysis of the element of provocation, while I shall only focus on the emotional aspect of this doctrine.

<sup>124</sup> See Model Penal Code 210.3 (b) (1962).

<sup>125</sup> *State v. Gounagias* [1915] 88 Wash. 304 153 Pac. 9, 311-312 ( “The doctrine of mitigation is briefly this: That if the act of killing, though intentional, be committed under the influence of sudden, intense anger, or heat of blood, obscuring reason, produced by an adequate or reasonable provocation, and before sufficient time has elapsed for the blood to cool and reason to reassert itself, so that the killing is the result of temporary excitement rather than of wickedness of heart or innate recklessness of disposition, than the law, recognizing the standard of human conduct as that of the ordinary or average man, regards the offense so committed as of less heinous character than premeditated or deliberate murder[...].”).

<sup>126</sup> All states that did not adopt the MPC rely upon some variants of the common law provocation mitigation. Moreover, of the 34 States that have adopted the Model Penal Code, only 11 States apply the EED doctrine without alterations. The remaining 23 states that adopted the MPC retained the provocation formulations.

<sup>127</sup> See *People v. Casassa* [1980] 49 N.Y. 2d 668, 404 N.E. 2d 1310; *Patterson v. New York* [1977] 432 U.S. 197, 206.

intellectual controls' or scrambles 'normal rational thinking' counts as an extreme emotional disturbance".<sup>128</sup>

The second component is that the killing must have "a reasonable explanation or excuse". This is what is usually referred to as the 'partial individualization' of reasonableness made by the MPC, because it "requires that the reasonableness of the explanation or excuse be determined "under the circumstances [as] the actor believes them to be' and 'from a viewpoint of the actor's situation".<sup>129</sup> Moreover, as was maintained in *State v. Elliott*, the EED defense does not require that "the homicidal act occur immediately after the cause of the extreme emotional disturbance [...] An homicidal influenced by an extreme emotional disturbance is not one which is necessarily committed in the 'hot blood' stage, but rather one that was brought about by a significant mental trauma that caused the defendant to brood for a long period of time and the react violently [...]".<sup>130</sup> In other words, the Code postulates that an actor's emotional disturbance does not decrease with the time, but rather it can increase.

Both EED and the Heat of Passion doctrines are based on the old, commonsense-based intuition that persons in extreme emotional conditions generally do not intend very much of anything.<sup>131</sup> Based on this intuition, the law at least grants mitigation through a recognition of the fact that people who kill while in a state of extremely heightened emotion - with or without prior provocation, depending on the doctrine- are less than fully in control of what they are doing.

This picture reflects the folk theory (widely accepted by criminal law) that intelligence or thinking are in contrast with emotion, that emotion deprives individuals of cognition and therefore of volition, and, consequently, that when there is strong emotion there cannot be deliberation. Looking closer at the EED, it can be noted that emotions are treated as psychological entities within the mind, disconnected from any other interpersonal context. As such, they can rear up, at any time and for any reason, reach out into the external world and produce a

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<sup>128</sup> Dan Kahan & Martha Nussbaum, 'Two conceptions of emotions in criminal law' (1996) 96 *Columbia Law Review* 269, 322.

<sup>129</sup> See Robinson n. 122, 295.

<sup>130</sup> *State v. Elliott* [1979] 411 A.2d 3, 7, 8.

<sup>131</sup> See Joshua Dressler, 'Why keep the provocation defense? Some reflections on a difficult subject' (2002) 86 *Minnesota Law Review* 959, Footnote n. 5 ("Provocation law is all about emotions.").

homicide. It would appear, from this perspective, that emotions are isolated from the rest of the psyche, with a will and a ‘mind’ on their own.

Furthermore, in the eyes of the law, the EED does not suffice for exculpation. In other words, although emotions may overturn reason and control, they do not do so to the point of providing grounds for insanity and blamelessness. This view has its foundations in another folk theory accepted by criminal law, which tells us that emotions do not contribute in any way to rationality. Rather, emotions are things that can and should be defeated by rational powers. Put differently, as Finkel and Parrott phrase it, “in the Law’s folk psychology theory as well as in its normative expectations, there is the belief that control over one’s emotions is psychologically possible and normatively expected”.<sup>132</sup>

Last but not least, such mitigation is only available for homicide, but not for any other crime. Thus, if a person commits the crime of assault after an argument, he or she will not be able to raise this kind of defense to obtain a reduction of penalty. According to Yaffe and Moaz, the reason why the law makes the EED mitigation available only for homicide lies in the fact that homicide is “a far less common crime than many others. This indicates the rather stingy attitude in the law towards basing differences in treatment on differences in control”.<sup>133</sup>

We have seen that the law’s general tendency to limit the relationship between emotion and control to the sphere of sentencing or, as is in the U.S. system, to the narrow sphere of diminished capacity for a single type of crime. All in all, this demonstrates significantly unequal treatment, when viewed in comparison to cases of lack of control linked to cognitive defects (which, as we have discussed).

The reason of this disparity is crystal-clear, and it points back to the core argument of this thesis. Namely, cognition is considered to be the only source of rationality. Therefore, when cognition is impaired, a person can lose the capacity to control himself. Emotion, however, is viewed as the opposite of cognition, and thus of rationality. It follows that, when there is no proof of a rationality/cognitive defect, then there is no space for a volitional excuse on the basis of emotional impairment alone. In the absence of a rationality/intellectual defect, this is simply

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<sup>132</sup> Norman Finkel & W. Gerrod Parrott, *Emotions and culpability: How the law is at odds with psychology, jurors, and itself* (America Psychological Association 2006) 137.

<sup>133</sup> Uri Moaz & Gideon Yaffe, ‘What does recent neuroscience tell us about criminal responsibility?’ (2016) 3:1 *Journal of the Law and Biosciences* 120, 136.

not enough to satisfy the law. However, as will be discussed shortly, it is possible to largely discredit the legal-psychological folk theory behind the law's different consideration and treatment of the relationships between the cognition-volition and emotion-volition.

### VIII. TOWARDS NEW MODELS OF INSANITY (AND DIMINISHED CAPACITY)

As illustrated and discussed at length in Chapter Two, psychological, neuroscientific, and neurocriminological studies highlight the crucial role that emotions play in moral judgments and behavior.<sup>134</sup> As a correct understanding of moral decision-making cannot but include emotion, I concluded that the Legally Relevant Mind is to be composed of three - instead of one - independent yet interacting mental spheres: emotional, cognitive, and volitional. Based on this model, I reconceptualized the notion of culpability by including further, affective factors in its relevant substance, as a way to better evaluate the agent's actual blameworthiness - understood as disregard, or lack of concern for the interests of other individuals - at the time of the crime.<sup>135</sup>

An emotionally-informed understanding of culpability might certainly lead to a rethinking of the formulation of rules and standards that comprise the legal doctrine of insanity (both total and partial, where the latter is provided), as well as of the doctrinal nature of diminished capacity (in the meaning adopted by Anglo-American systems). In fact, if emotions are also viewed as essential attributes of moral behavior (that is, of moral and legal personhood) then emotional dysfunctions cannot but be considered, alongside cognitive and volitional impairments, as part of any assessment of insanity. In this part of the Chapter, I shall attempt to introduce the emotional factor as part of the insanity standards we examined above.<sup>136</sup>

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<sup>134</sup> See Part One, Chapter Two.

<sup>135</sup> See Part One, Chapter Three.

<sup>136</sup> Admittedly, the impact of an emotion-oriented understanding of the Legally Relevant Mind on insanity standards would differ from legal system to legal system. In this Chapter, and in general in this thesis, I have focused chiefly on the Italian and the U.S. systems, using them as emblematic benchmarks to test the potential effects that brain and behavioral sciences teachings regarding moral decision-making processes on culpability doctrines.

Looking back at what was discussed previously, the questions I shall address now will be the following. How would an emotion-oriented model of culpability affect the provision contained in Article 90 of the Italian Penal Code establishing that emotions and passions are irrelevant to an assessment of *imputabilità*? Would the single cognitive/instrumental test contained in the U.S. insanity standards still be sufficient, in light of a scientific explanation of the fundamental evaluative role of emotions in decision-making processes? What might the implications be for the conceptualization of volitional incapacity?

After answering these questions, I will draw up a new model of insanity defense by shifting from the current intellect-based standards described in Section III to more comprehensive standards that take into account also the emotional factor. The inclusion of emotions in the legally relevant mental makeup would have significant repercussions for the insanity doctrine. Firstly, insanity would consist of an explicit tripartite test. In particular, insanity standards would include - in addition to existing cognitive tests - an autonomous emotional capacity test. Moreover, volitional incapacity would be measured by also looking at emotional dysfunctions, not only cognitive ones. Secondly, a different understanding of insanity would also have repercussions on partial insanity and diminished capacity doctrines, as respectively provided by continental European and Anglo-American systems. While partial insanity would change in the same extent as total insanity, the diminished capacity doctrine would change its doctrinal nature and become a generic partial responsibility doctrine. Last but not least, not only would the insanity (both total and partial) and diminished capacity tests themselves change, but the category of people potentially eligible for these defenses would be broadened. All these implications deserve careful examination.

#### A. Insanity defense should consist of an explicit tripartite test

Outdated rationalist, folk perspectives are at odds with contemporary studies on the brain. The latter are increasingly showing that moral behavior is to be seen as an integrated core of intertwined functions rather than compartmentalized elements. To keep the view that higher cognition is the sole - or even simply the

principal- controlling function of morally rational decision-making and behavior is flawed and unrealistic.<sup>137</sup> In fact, emotions and emotional processes significantly contribute to the mental equilibrium that makes human beings able to behave in accordance with social, moral, and legal rules.

Let us briefly summarize what was discussed in Part One, Chapter Two. Brain (and behavioral) studies show that emotions serve an evaluative role in moral decision-making. By attaching value-laden information to external environmental stimuli, emotions inform our perception of those stimuli and shape our behavioral reaction *before the intellect comes into play*. Firstly, emotions help us appraise, perceive and feel the moral significance of a certain action in a given social context, and thereby influence our verbal knowledge of it. Secondly, emotions modulate our behavioral responses by appropriately tuning our verbal or instrumental knowledge to the demands or opportunities offered by the environment, thus allowing us to effectively apply that knowledge to action. This means, as a logical consequence, that dysfunctions in the emotional system might well lead to both cognitive (knowledge/understanding) and volitional (choice/self-control) impairments and, therefore, to abnormal behavioral responses.

Translating these scientific insights into legal language produces two significant consequences for insanity tests. The first is that the existence of an emotional incapacity to perceive the moral significance of one's own actions might well form an autonomous prong of insanity tests, independent from the cognitive one. The second is that volitional incapacity should also be measured in light of emotional dysfunctions, regardless of the integrity of the cognitive faculties to verbally and instrumentally know or understand the meaning of one's actions.

All in all, a reexamination of the role of emotions within moral decisions, based on psychological and neuroscientific studies, entails an expansion of the relevant mental substance lying behind insanity. This would lead to the introduction of tripartite tests: cognitive (intellect/knowledge/understanding), emotional (emotion/moral perception or feeling), volitional (balance between cognitive and emotional processes/control). Let us now examine how the introduction of

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<sup>137</sup> See Dillard Gardner, 'Insanity as a Defense in the North Carolina Criminal Law' (1951) 30 North Carolina Law Review 4, 7 ("For example, the notion that intelligence may be separated from the volitional and emotional life of an individual appears absurd and fantastic to most scientists, but appears to be taken for granted in legal theory.").

tripartite insanity tests might actually affect and change current insanity standards in the legal systems discussed above.

1. *Emotional capacity as an autonomous prong of insanity tests*

The empirical sciences reveal that moral rationality is the product of inextricably intertwined emotional and cognitive/intellectual capacities. According to the scientific perspective, a person appreciates the significance of what he is doing and, especially, that what he is doing is – socially and/or morally– wrong not only by virtue of his cognitive awareness that the act is wrong, but also – and especially– of his experience of the usual moral sentiments (either emotions or feelings) associated with that act. Emotional appreciation, not only intellectual awareness, must be a part of the issue.

Once again, as discussed at length in Chapter Two, neuroscientific (and psychological) studies unanimously claim and demonstrate that possessing a verbal or instrumental knowledge of something is not synonymous with moral rationality (and therefore with sanity) if the relevant emotions are lacking. On the contrary, the existence of the former in the absence of the latter is a potential description of abnormal or even pathological conditions.<sup>138</sup> If emotions are also crucial components of what makes one a legal agent, it follows that the mostly cognitive emphasis of the various insanity tests should be recalibrated to give more weight to emotions. That is, emotional incapacity must be taken into account as part of an insanity ruling.<sup>139</sup>

From a purely normative/legislative point of view, a model of moral rationality that includes the emotional factor could potentially lead to a rethinking of the various formulations of standards and rules on insanity tests. To make these claims more solid, let us now look at what tangible effects an acceptance of

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<sup>138</sup> See Ralph Slovenko, 'Psychiatry, Criminal Law, and the Role of the Psychiatrist' (1963) 3 Duke Law Journal 395, 397 (discussing the cognitive test contained in the M'Naghten Rule, he observes that the dictum, "Cogito, ergo sum," "I think, therefore I am," is, however, the formula for the schizoid intellectual's struggle to possess an ego. A healthy human being would be more likely to start from "I feel, therefore I am").

<sup>139</sup> St. John's Law Review n. 70, 250 ("[w]hile an individual may understand both the nature of his act and its wrongfulness (cognition), he may nevertheless, due to mental illness [...] be so emotionally deranged (affection) as to be irresponsible.").

emotional incapacity as part of insanity tests could have on current insanity standards.

Let us first focus on the Italian model, described in Section III.A.<sup>140</sup> The first part of Article 88 of the Italian Penal Code, (which deals with the substance of *imputabilità*, as described by Article 85), establishes that total insanity exists when, at the time of the crime, the defendant was in such a mental state (due to mental illness) that his capacity to understand what he was doing was entirely lacking. As previously discussed, the legal meaning of “capacity to understand” (*capacità di intendere*) is purely cognitive. It indicates the defendant’s intellectual capacity to be aware of - and therefore appreciate - the meaning of his conduct, as well as of its social and punitive consequences. Furthermore, and more importantly, the cognitive prong of insanity testing does not cover any moral aspect of behavior. In other words, it is not necessary for the actor to have any perception of the moral significance of the act he is about to commit. It suffices merely that he possesses some awareness of its factual meaning in the given social context. As can be noted, keeping the determination of insanity within a factual domain is perfectly consistent with a solely cognitive test, which is limited to assessing the individual’s verbal and instrumental understanding and knowledge of what he was doing at the time of the crime.

The cognitive test contained in Article 88 proves to be inaccurate in two main respects. Let us start from the limitation of cognitive capacity to the factual dimension of the unlawful act. When measured against neuroscientific findings about how our minds actually work when we make moral types of decisions, such as choosing whether to commit an antisocial act, the assumption that the only thing one must be capable of is knowing the factual meaning of one’s act - an assumption that totally disregards the moral dimension - proves to be largely mistaken.

Once we accept that the cognitive test should also encompass the moral dimension of the act, we can proceed to point out that the cognitive test contained in Article 88 is too narrow to grasp what it really means to appreciate the moral meaning of one’s conduct. Again, as we have abundantly argued, it is not only cognition that helps us know the moral and social meaning of our actions. Rather,

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<sup>140</sup> See Section III.A.1.

it is emotion that makes us attribute a certain value to a certain action, before intellect even comes into play.

Italian criminal law should accept, once and for all, that emotions provide a crucial contribution to our decisions, notably in moral and social contexts. Consequently, while leaving the substance of the cognitive prong of the test the way it is, the insanity test contained in Article 88 should add an emotional prong. More specifically, the test should also require the establishment of whether, at the time of the crime, the person was in such a mental state (due to mental illness) that his emotional capacity to feel the moral significance of his conduct was severely/totally impaired.

Admittedly, the introduction of an emotional prong to the insanity test contained in Article 88 has been already advocated - though without any concrete or in-depth argument - by some Italian commentators. Giovanna Amato, for instance, acknowledges the cognitive dimension of emotions, as underlined by cognitive psychologists, and calls for the inclusion of emotional apathy or emotional indifference as potential sources of insanity, alongside cognitive and volitional defects.<sup>141</sup> Moreover, the introduction of an emotional test is also in line with the opinion of those Italian scholars who strongly advocate for the elimination of Article 90 from the Penal Code.<sup>142</sup>

Last but not least, the inclusion of an emotional prong in the insanity test would certainly rectify the contradictions of the Italian *Corte di Cassazione*'s recent approach to insanity, personality disorders, and emotional and affective states. As noted earlier, the *Corte di Cassazione* has stated that all types of personality disorder - in addition to mental diseases *stricto sensu*- can potentially give rise to insanity, provided that they substantially compromise one's cognitive and volitional capacities at the time of the crime. At the same time, the *Corte* offered an expanded interpretation of Article 90 and accepted that emotions and passions can actually affect one's *imputabilità*, provided that they give rise to a

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<sup>141</sup> Amato n. 114 (“[S]i potrebbe considerare il riconoscimento di un ruolo in punto di non imputabilità anche all’emozione assente, all’indifferenza emotiva, all’apatia del sentimento e della morale”).

<sup>142</sup> Fabrizia Fierro Cenderelli, ‘Sulla rilevanza degli stati emotivi e passionali nell’ambito del giudizio di colpevolezza e di imputabilità’ (1975) *Rivista Italiana di Diritto e Procedura Penale* 1349; Marco Boscarelli, ‘Verso l’abrogazione dell’art. 90 c.p.’ in F. Andreni & M. Cesa-Bianchi (eds), *Il discontrollo omicida* (Franco Angeli 1981) 139-140; Alberto Crespi, ‘Sub Art. 90’ in A. Crespi, F. Stella, G. Zuccalà (eds), *Commentario Breve al Codice Penale* (CEDAM 2003) 321.

pathological condition capable of seriously compromising one's capacity to understand one's own conduct and to control one's own behavioral responses.<sup>143</sup>

As emphasized, this reasoning suffers from a significant shortcoming, in that it fails to consider the fact that emotional impairments or affective disorders do not necessarily compromise one's ability to verbally or instrumentally understand or be aware of the meaning of one's conduct. Rather, and notably, personality disorders characterized by emotional impairments undermine one's ability to perceive the moral significance of one's conduct. They therefore can produce an implicit altered, misguided, or deviant understanding of the factual meaning of said conduct, even if intellectual understanding appears to be (or perhaps is) perfectly "normal." So, while in theory these kinds of personality disorders are recognized as potentially feasible grounds for an insanity ruling, in practice, because they do not affect the relevant mental capacities established by the law as essential to criminal responsibility, they do not actually meet the requirements to warrant insanity. The inclusion of an emotional prong would certainly remedy this shortcoming. It would also legitimize the personality disorders that only compromise moral and emotional spheres of the mind within the range of mental conditions that could potentially lead to an insanity ruling. The result would certainly provide the *Corte di Cassazione's* reasoning with more coherence and practical applicability.

As for the American system, the inclusion of an emotional (in)capacity test would have equally interesting and significant implications for current insanity standards. Unlike Italy, the manner in which emotions might affect existing insanity standards in the U.S. system cannot be generalized. It must instead be measured against the various insanity standards that have been adopted over the years. As this analysis has only considered the M'Naghten and ALI tests,<sup>144</sup> I shall keep my focus on them. By and large, the only implication is that the mostly cognitive emphasis of the M'Naghten test or the ALI model should be recalibrated to give more weight to emotions. In other words, both tests should provide an explicit emotional capacity test alongside the cognitive one.

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<sup>143</sup> See Section III.A.2

<sup>144</sup> See Section III.B

Turning first to M’Naghten, we find that the intellectual test contained therein requires only that a “defect of reason” arising from a “disease of [the] mind”, has to have impaired the defendant’s ability to know the nature and quality of the act he was committing, as well as his capacity to know that the act was wrong. The inclusion of emotions in the formulation and the substance of the M’Naghten rule would therefore have an impact on three different levels: first, the meaning of “reason”; second, the meaning of “disease of [the] mind”; third, the meaning of “know”.

Let us begin with “reason”. In his seminal work on the insanity defense, Herbert Fingarette urges his readers to consider the offender's rationality at the time of the relevant behavior. He argues that the concept of rationality has, for the most part, fallen by the wayside during debate on the insanity defense, due to the fact that the M’Naghten test's "defect of reason" phrase "has not been understood."<sup>145</sup> As a result, "it has commonly been dropped from the legal language actually used".<sup>146</sup> Fingarette holds that this is a "profound mistake", because "the defect-of-reason clause tells us that "know the nature and quality of the act' and "know that is wrong' must be taken to apply with reference to the person's reason, his capacity for rational conduct."<sup>147</sup> The word “reason” is to be understood as the offender’s source of the capacity for moral rationality. Contrary to traditional rationalistic understanding, according to which the word “reason” is usually interpreted as “intellect” or “intellectuality”, we now know that our capacity for moral rationality is the product of the proper balance between cognition and emotion and, furthermore, that emotion is an intrinsic component of moral judgments. It follows that the notion of “defect of reason” is no longer to be understood as “defect of intellect”, but it has to encompass the emotional factor as well. A “defect of reason” should therefore be more correctly understood as defect of “cognitive intellect or emotion, or both”.

If the scope of the word “reason” expands to also include emotions, it follows that the concept of the sort of “disease of [the] mind” that can cause such a defect of reason has to change and be expanded accordingly. As we saw earlier, courts have rarely made any headway in defining the concept of “disease of [the]

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<sup>145</sup> Fingarette n. 5, 198.

<sup>146</sup> *ibid.*

<sup>147</sup> *ibid.*

mind”.<sup>148</sup> However, if we interpret this requirement in combination with those of “defect of reason” and “knowledge”, we can easily deduce that the concept of “disease of [the] mind” envisaged by the M’Naghten test refers only to cognitive defects, such as severe mental retardation, or psychosis. However, if the benchmark of the entire test – namely, the defect of reason – were also to embrace an emotional component, then emotional diseases or disorders would be included in the relevant range of the diseases of the mind. A broadening of both notions (“defect of reason” and “disease of [the] mind”) would inevitably lead to an expansion of the scope of the word “know”. Some authors have already suggested that the word “know” should be interpreted broadly, so as to include emotional appreciation.<sup>149</sup>

The existence of simple cognition - a thin version of instrumental rationality- should be an insufficient criterion, standing alone, for finding sanity. Lack of emotions may produce insane conduct and insane crimes even when some modest form of cognition - the ability to effectuate a simple syllogism, for example- is apparent. If this is the case, then a more correct and precise formulation of the test should leave the knowledge requirement as an indicator in the cognitive test, but also add an explicit emotional prong, which would require proof of the person’s lack of feeling or perception of the moral significance of his criminal act. Put this way, there would be an emotional capacity test in addition to the cognitive one, so as to avoid conceptual and practical interpretive confusion.

As a consequence, a potential reformulation of the M’Naghten test, one that takes into consideration the emotional prong, would read as follows:

“To establish a defense on the grounds of insanity, it must be clearly proven that, at the time of committing the act, the party accused was laboring under such a defect of rationality, from cognitive and emotional diseases, *of such a significance that it seriously affected his capacity to know the nature and quality of the act he was doing, to feel that the act was wrong* [...]”.

As for the ALI test, the current formulation seems to be more consistent with an emotionally-informed understanding of the relevant capacities for moral

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<sup>148</sup> See Section III.B.1.

<sup>149</sup> See Gerber n. 44.

rationality. In fact, the verb “appreciate” seems to contain already an emotional test. However, as we noted above, the word “appreciate” has raised a lot of controversies and interpretive confusion, in that it is not clear how much broadly it should be understood.<sup>150</sup>

Regardless of whether the verb “appreciate” would be better interpreted more narrowly (as solely cognitive) or more broadly (as encompassing the emotional), it is undeniable that it can generate confusion. In other words, by attributing to the word “appreciate” both a cognitive and emotional meaning, it could make the line between the two spheres too blurred. In the end, a risk would remain that relevance might continue to be attributed solely to cognitive defects, without significant consideration being given to the emotional ones. Moreover, if we accept that emotional (in)capacity does play a definite and autonomous role in moral judgments, then it would appear to be more correct to split the word “appreciate” into two different requirements, such as *knowing and feeling the criminality of one’s conduct*.

The provision of Section 4.01 Par. 1 would therefore read:

“A person is not responsible for criminal conduct if at the time of such conduct as a result of a mental disease or disorder, *causing cognitive and/or emotional impairments*, he lacked substantial capacity either *to understand the factual meaning of his conduct, or to feel the criminality of his conduct, or to control his conduct in the circumstances, and thus to conform his conduct to the requirements of the law*”

Admittedly, introducing an explicit emotional prong in the first paragraph of the ALI test certainly poses serious challenges for the caveat paragraph contained Section 4.01 (2). Specifically, if we accept that emotional capacity is to become a definite and autonomous prong of the insanity test, then the rationale of the second paragraph is rendered meaningless, since the categories of people to which the paragraph actually refers, meaning psychopaths and patients suffering from socio-affective disorders, would become potentially eligible for an insanity plea

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<sup>150</sup> See Kuh n. 52, 797-798.

by virtue of the newly introduced emotional prong of the test. The caveat paragraph could therefore reasonably be eliminated.

All in all, the acceptance of emotional capacity as an autonomous prong of insanity tests would certainly lead to a rethinking of the formulation of current standards, insofar as it would explicitly add an emotional requirement to the preexisting cognitive one. Thus, while cognitive prongs would clearly refer to the defendant's capacity to know and comprehend the factual and the antisocial character of his act, the newly introduced emotional prong would refer to the defendant's capacity to feel or perceive its moral significance. Of course, not all emotional impairments are eligible conditions for an insanity plea. It is judges and juries - with the help of expert witnesses - who would evaluate and assess, case by case, the pathological seriousness of emotional derangements within the domain of criminal responsibility. That is nothing new compared to what has been done to date. The introduction of an emotional prong would simply reinforce the substance of insanity tests, in that it would extend their application to include all the capacities that help guide our reasoning to make the appropriate choices. With this expanded formula of the insanity test, criminal law would surely be able to more adequately capture the relevant aspects of what constitutes morally rational behavior.

## *2. Integrating emotions in the relevant substance of volitional capacity*

The second important repercussion of an emotion-oriented conception of insanity concerns its volitional prong (i.e. the capacity to choose what sort of conduct to engage in, and therefore to exert self-control). As we observed above, the volitional prong in insanity tests plays a secondary role in comparison to the cognitive one. Indeed, some insanity standards (e.g. the M'Naghten test) do not include a control test at all, thereby placing the burden of insanity entirely on cognition. Other tests, however, do require that the agent be capable of controlling his impulses at the time of the crime, and therefore able to choose what conduct to engage in when faced with conflicting choices (according to the Italian model, for

example) or, otherwise, be able to conform his behavior to what the law prescribes (according to the MPC model).

There are two ways in which the autonomy of the volitional prong is understood, both of which ultimately prove to be purely theoretical. Under the first, volition is considered to be an autonomous prong, but only on paper. In truth, it is viewed as a ‘parasitic’ companion to cognition. In other words, despite volitional incapacity being established as an autonomous requirement of the insanity defense, its existence is still viewed as deriving from the person’s knowledge or understanding of the factual and social meaning of his criminal conduct.

The second way in which volitional incapacity is understood as an autonomous prong of insanity stems from a libertarian understanding of volition as an independent mental faculty which depends solely on one’s freedom of choice, freedom of decision, and freedom of self-determination to action. As outlined above, many scholars harshly criticize this understanding of volition, for both conceptual and practical reasons.<sup>151</sup>

As discussed previously, neither of these two conceptualizations of volitional incapacity takes the emotional factor into consideration. Rather, only on those rare occasions when volitional control is impaired due to emotional breakdown is it considered for the purposes of insanity. The reason, as we have seen, is that emotions are not considered to be part of the substance that makes up the capacity for rationality—quite the opposite. Therefore, by and large, even when emotions are impaired and provoke a lack of self-control, the law does not understand this to be a lack of rationality which could serve as grounds for an excuse. Put simply, the law views it as a “can’t control oneself” versus a “won’t control oneself” situation. In other words, when a lack of control or inability to choose what conduct to engage in is the result of cognitive defects, the law views this as a “can’t” situation.

On the other hand, when the lack of control or incapacity to choose what conduct to engage in is caused by emotional impairment, the law mostly sees this as a “won’t” situation. *Ergo*, when the lack of self-control depends on a cognitive defect (i.e. a rationality defect, according to the traditional account) – that is, when a subject is not able to control his impulses (or choose to conform his

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<sup>151</sup> See Section VI.

behavior to a given moral context) because he has an altered perception of reality- this constitutes feasible grounds for an insanity defense. However, when the lack of self-control is due to an emotional defect - in other words, when a subject does not control his antisocial impulses because of an emotional disturbance- this is not considered acceptable grounds for an insanity defense.

This distinction, as we have also noted, is clearly reflected in various legal provisions. Generally, a lack of self-control due to emotional impairments alone is either not considered sufficient to satisfy an insanity test or, at best, constitutes a mitigating factor only - one that could lead to recognizing a lesser degree of culpability in terms of degree of crime, as in the EED defense provided by the MPC.

The “Volition/Cognition = insanity” and “Volition/ Emotion = non-insanity” dichotomy proves flawed when measured against the emotion-based model of the Legally Relevant Mind developed in Part One. As has been claimed, if we accept that emotions and cognition contribute equally to behavioral control, then limiting the relevance of volitional incapacity to the presence of cognitive defects, excluding any excusing role for emotions, proves to be mistaken.

Integrating emotions into volition leads to significant consequences on the normative level, since accepting that volitional capacity is also a matter of emotionality would have a substantial impact on the law’s ordinary way of conceiving of the volitional prong of insanity tests. If insanity standards were based on a definition that accepted this broader vision of volitional capacity, then lack of volition would always be allotted the same amount of relevance regardless of whether it was the result of emotional or cognitive defects. In other words, the substance of volitional incapacity could be reconceptualized as a lack of capacity to choose what conduct to engage in, resulting from both/either cognitive and/or emotional impairments.

Certainly, the precise impact of an expanded understanding of volitional incapacity cannot be generalized, as it would vary from legal system to legal system. Any analysis must therefore adopt a comparative approach. Let us start, once again, with the Italian system. In this system, volitional capacity is defined, in theory, as an independent prong of the insanity test from the cognitive one. However, as we noted earlier, the current dominant opinion among legal scholars

is that volitional capacity derives from cognitive capacity. Whichever understanding of volition is preferred, emotions are never included in its substance. This is further confirmed by the proviso contained in Article 90 of the Penal Code, which provides that emotions and passions do not affect *imputabilità*, or, therefore, cognitive and volitional capacities. Focusing on the relationship between Article 90 and volitional incapacity, we find that, when a subject acts out of control under the effect of emotional and passionate states, he is *presumed* to be able to *choose* the conduct in which to engage in a given conflicted situation, but simply does not *wish* to control his antisocial impulses.

In contrast with this view, we have seen that emotions are an integral part of volitional processes, to the same extent as cognition. Consequently, as has been correctly noted, emotions do alter the volitional force that moves the agent to choose between alternative options. They therefore do affect the volitional prong of *imputabilità* and, hence, of insanity.<sup>152</sup> It is for this reason that emotions should be integrated into the volitional prong of the insanity test contained in Article 88. Therefore, while the formulation of the volitional prong would remain the same, its conceptual substance would change, with more significant repercussions actually falling on the provision contained in Article 90. Let us take a step further, and admit that, once we accept that emotions and passions might well affect the capacity to choose the conduct in which to engage in a moral context, and therefore to control antisocial impulses, there is not much sense in keeping a provision that states the exact opposite.<sup>153</sup>

Emotional impairments would, of course, have to be particularly serious in order to compromise volitional capacity. Eliminating the provision contained in Article 90 would not mean limitlessly expanding the notion of volitional incapacity to include any lack of self-control due to an emotional alteration. It goes without saying that the emotional impairment would have to be of such seriousness that it

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<sup>152</sup> Amato n. 114 ("[L]e emozioni sono in grado di incidere sull'imputabilità, sul suo profilo cognitivo, adulterando la spinta volitiva del soggetto agente e la sua scelta tra opzioni alternative.").

<sup>153</sup> Admittedly, there have been proposals for projects to reform the insanity defense for the elimination of Article 90. The consequent expansion of the concept of insanity would take into consideration the emotional factor as one of the sources of the sort of "serious conscience disturbances" that lead one to cease to be a moral - and therefore culpable- agent. See Collica no. 93, 139-142.

totally or substantially impaired the individual's capacity to control his or her antisocial behavior at the time of the crime.

Providing volitional incapacity with an emotion-based substance would make it possible to detach the volitional prong of insanity from the cognitive one. In other words, if we acknowledge that emotions - fundamental components of moral behavior- are also sources of volitional capacity, it then follows that volitional incapacity can be a consequence of a serious emotional disorder. This, in turn, makes it possible to detach the assessment of volitional incapacity from the cognitive/understanding requirement. As a result, the capacity for self-control would no longer be parasitic on the capacity to intellectually understand the moral, factual, and social meaning of conduct, since the law would recognize that the two are actually often unrelated.

In a nutshell, in the Italian system, the effect of the acceptance of an emotion-based notion of volitional (in)capacity would be to bring about a revision of the substance of the volitional prong of insanity to include the emotional factor. While the text of Article 88 would remain unchanged, Article 90 would inevitably become meaningless, and therefore be eliminated.

The consequences for the U.S. system would be even more significant. Recognizing an understanding of moral rationality and self-control that took the emotional factor into consideration would have considerable implications for both insanity and diminished capacity tests. Indeed, if we accept that the capacity for self-control depends on a balanced interaction between emotion and cognition, what is the sense of perpetuating the above-mentioned dichotomy between cognition and emotion in relation to volition?<sup>154</sup> Why, then, continue to limit the role of emotional disturbances to that of grounds for diminished capacity? This last issue will be explored in greater depth in the next section. Let us now limit our analysis to how this different understanding of the emotion/self-control relationship affects current insanity standards.

Let us begin with the M'Naghten Rule. As previously discussed, the traditional formulation of the M'Naghten test does not encompass a volitional component. The reason, as has been abundantly explained, lies in the fact that the test presumes cognition to be the only relevant mental sphere responsible for moral

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<sup>154</sup> See Section VI and VII.

behavior. In other words, cognition (intellect) produces the knowledge of the nature and quality of an act, and tells us if that act is wrong. If one is in possession of this knowledge, then he is presumed able to control any antisocial impulses. The emotion-oriented description of volitional (in)capacity tends to confute this presumption.

Accepting that emotions are an integral part of moral decision-making processes and behavior implies that the narrow cognitive test contained in the M’Naghten must be expanded in two respects. The first, explored in the previous subsection, involves the inclusion of an emotional capacity test. The second is the creation of a volitional test that takes into account the emotional factor. An expanded version of the M’Naghten test would therefore be enriched to include an emotional capacity test and a volitional test that took the emotional factor into consideration, in addition to the pre-existing cognitive one.

A potential re-formulation of the test with the introduction of a volitional prong, in addition to a cognitive and an emotional one, would read as follows:

“To establish a defense on the grounds of insanity, it must be clearly proved that, at the time of committing the act, the party accused was laboring under a defect of rationality, from cognitive and emotional diseases, *of such significance that it seriously affected his capacity to know the nature and quality of his act, to feel that the act was wrong, and to conform his behavior to his knowledge and his perception/feeling.*”

The same mechanism can be applied to the ALI test. Let us reconsider the control test contained in section 4.01 of the U.S. Model Penal Code from the perspective of an understanding of volitional capacity which also depends on emotional factors. This provision might be reformulated as follow:

“A person is not responsible for criminal conduct if at the time of such conduct as a result of a mental disease or disorder, *causing cognitive and/or emotional impairments*, he lacked substantial capacity [...] *to control his conduct in the circumstances and thus to conform his conduct to the requirements of the law*”.

As we can easily see, the introduction of an emotion-oriented notion of

volitional (in)capacity would have no substantial impact on the ALI test, in the sense that it would simply specify the substance of the control test, but without significantly altering the test's original formulation. Admittedly, the ALI test is, by definition, the test most compatible with psychological and scientific accounts of morally rational decision-making processes. This is due to the fact that, since it also acknowledges the autonomy of volitional incapacity, it already takes into consideration a broader understanding of rationality - unlike the excessively narrow cognitive test contained in the M'Naghten test. The new formulation proposed here would simply make the test more specific and precise, so as to overcome the conceptual imprecisions the current text contains, as well as ensure there would be no space for interpretive uncertainties.

The introduction of an emotion-oriented notion of volitional capacity, especially in the ALI test of the MPC, would create even greater challenges for the Extreme Emotional Disturbance (EED) diminished capacity doctrine. As we shall see, if volitional incapacity arising from emotional impairment becomes an element of insanity tests, how would the meaning of the EED mitigator and its relationship with the doctrine of insanity then change? Put differently, would the current doctrinal distinction between Cognition/Volition and Emotion/Volition still have a *raison d'être*? How would the legal nature of the EED mitigator and, more in general, of diminished capacity (in the partial excuse variant) change? This is a particularly complex issue, one which merits detailed examination.

## B. Effects on partial insanity and diminished capacity

Apart from affecting the meaning of insanity, an emotion-oriented model of moral rationality might produce significant consequences for the doctrines of partial insanity and diminished capacity. As for partial insanity, the consequences deriving from an emotion-oriented paradigm of the Legally Relevant Mind, and thus a revised conception of culpability, are just the same as those that fall back total insanity. As noted in Section III.A.1, partial insanity is based on the same requirements as total insanity, though in a lesser degree. Therefore, if the updated notion of total insanity requires the total lack of cognitive, or emotional, or

volitional capacity, it logically follows that partial insanity would exist in case of reduced emotional, or cognitive, or volitional capacity.

So, for example, a revised version of Article 89 of the Italian Penal Code in light of the new understanding of the Legally Relevant Mind and insanity would read:

*“A defendant who, at the time of the crime, was in a mental condition such that either his emotional, his cognitive or his volitional capacity was seriously compromised, without being totally impaired, he would be considered to be responsible, but his sentencing would be reduced”.*

The consequences for the Anglo-American diminished capacity - such as the Anglo-American common law’s “Heat of Passion”, or provocation/passion doctrine, and the Extreme Emotional Disturbance (EED) doctrine adopted by the MPC, as well as by some single statutes in the US - are, instead, much more significant.

Let us briefly recap both the provocation/ passion and the EED doctrines. These doctrines are both substantially characterized by a lack of control due to an emotional breakdown at the time of the crime, the former being due to a provocation, the latter to an extreme emotional disturbance regardless of whether or not there was any previous provocation. As discussed in Section VII, both doctrines are limited to reducing murder to manslaughter, and cannot be applied to crimes in general. More importantly, both doctrines emphasize a clear mechanistic conception of emotions, according to which emotions are the opposite of intellect and rationality, and therefore capable only of distorting rational reasoning. Indeed, since the lack of control is dependent on an emotional, as opposed to a cognitive, defect, the law does not actually treat the substance of these doctrines as a real defect of rationality (even if it is claimed to do otherwise). In fact, both of the aforesaid mitigators are meant only to lessen the degree of the crime, not the perpetrator’s overall culpability.

The Heat of Passion and the EED doctrines appear worthy of criticism in two respects when measured against the emotion-oriented model of the Legally Relevant Mind, as well as that of insanity. First and foremost, we have seen that emotions are crucial components of both morally rational decision-making and

self-control. Building on this updated understanding of rationality and control in moral contexts, we established that volitional incapacity arising from emotional defects – now understood to be another sort of rationality defect - should also be part of control tests in insanity standards. Consequently, there is no reason to maintain a distinction between “extreme cognitive dysfunction/lack of volition = insanity” and “extreme emotional dysfunction/lack of volition = diminished capacity,” especially considering that lack of volition due to severe emotional dysfunctions has now also become a component of insanity tests.

At first sight, it might seem that I am suggesting the elimination of the Heat of Passion and EED doctrines, but that is not the case. In fact, I am of the opinion that the net distinction between the kind of mental impairments necessary to warrant insanity and those needed to warrant diminished capacity prove meaningless once we recognize that emotions play a role in both moral rationality and self-control. It logically follows that diminished capacity would become an *in continuum* concept with insanity. In other words, once emotions are included in the mental substance of moral rationality and self-control - which form the benchmark of legal insanity- there will no longer be any reason for them to continue to play a “minor” role (in which they are limited to being potential sources for diminished capacity for lessening the degree of homicide, as is currently the case in the vast majority of U.S. jurisdictions).

If diminished capacity is to be understood as a doctrine based on a reduced degree of rationality and self-control at the time of the crime, and if, in turn, the mental makeup of rationality and self-control is also provided by proper emotional functioning, then it would be much more logical - and legally desirable- to change the nature of the diminished capacity doctrine, transforming it into a generic partial excuse. As a consequence, both the Heat of Passion and EED mitigators would be included, alongside cognitive defects, in the range of rationality defects that might potentially serve as a basis for a diminished capacity defense.

In support of my view, I shall recall Professor Stephen Morse’s theory of diminished capacity. Morse vigorously affirms that diminished capacity should take on broader connotations. In his compelling argument, he acknowledges that, contrary to the “all-or-nothing doctrines” adopted by current U.S. criminal law,

the capacity for rationality, self-control etc. are continuum concepts.<sup>155</sup> In view of the fact that people display a wide range of rational and control capacities, a truly fair judgment of culpability and responsibility, as well as a fair determination of punishment, cannot but take into consideration the kinds of impairments that affect one's rationality to some significant degree, even if they do not totally compromise it. Furthermore, Morse rightly points out that limiting the diminished capacity doctrine to homicide alone is pointless, if we consider that any crime can be committed by a defendant whose rational capacities are to some degree impaired.<sup>156</sup> The applicability of present EED and Heat of Passion partial excuses should be extended to cover all crimes. With this in mind, Morse proposes the adoption of an additional verdict, i.e. the "Guilty but Partially Responsible" verdict, as a new general affirmative defense that "requires a substantial diminution in rationality because less serious impairments are sufficient to warrant lesser blame and punishment".<sup>157</sup>

Morse's argument remains intentionally vague about the kind of mental impairments that might meet the requirements of the generic partial excuse he proposes.<sup>158</sup> He argues that the generic partial responsibility excuse should apply in cases of substantial - but not total- rationality defects, which implies cognitive and, whether or not they are clearly provided for in the text, self-control defects. These are basically the same kind of defects (though in a lesser degree) that warrant insanity.

Morse also argues that the partial generic excuse he proposes would have the effect of extending the applicability of the Heat of Passion and EED doctrines to all crimes, thereby implying that loss of self-control arising from emotional dysfunctions should also be considered a rationality defect.<sup>159</sup> All in all, Morse implicitly grounds his partial responsibility excuse in a broad understanding of rationality, one that also attributes relevance to the emotional factor.

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<sup>155</sup> Morse n. 111, 295.

<sup>156</sup> *id.*, 296 ("Compromised rationality and its effect on culpability are not limited to homicide. Fairness and proportionality require that doctrinal mitigation should be available in all cases in which culpability is substantially reduced").

<sup>157</sup> *id.*, 299-304.

<sup>158</sup> *id.*, 301 ("I would trust legislative judgment or the common law process to identify which rationality-diminishing factors would be justified").

<sup>159</sup> *id.*, 295 ("Provocation/passion and extreme mental or emotional disturbance as partially excusing mitigating doctrines are best explained by the theory that these conditions non-culpably reduce the capacity for rationality").

If this interpretation is correct, then Morse's theory of diminished capacity largely matches the emotion-oriented descriptions of moral rationality and insanity proposed here. Morse's theory frames diminished capacity within the context of a substantial diminution of rationality arising from both cognitive and emotional impairments. Let us combine this with the updated notion of legal insanity, which requires the total or substantial lack of either cognitive, emotional, or volitional capacity (the latter due to both cognitive and/or emotional defects). The result is that the present diminished capacity doctrine, in the partial excuse variant, naturally proves to be no different from a *generic partial insanity*. In fact, if both doctrines stem from the same notion of rationality, then they would both be based on the same requirements, though in different degrees.

Turning the legal nature of diminished capacity into a generic partial insanity excuse would certainly eliminate the existing artificial doctrinal distinction between cognition-based volitional excuses and emotion-based volitional mitigators. As we noted above, confining lack of control arising from emotional impairments to the domain of diminished capacity, while making lack of control arising from cognitive defects potential grounds for an insanity defense, is mistaken. The two mental spheres cannot be plausibly separated, as they play equal and intertwined roles in rationality and self-control, contributing in equal measure to our behavioral responses.<sup>160</sup> Consequently, either of the two mental spheres can be partially, substantially or totally impaired, thereby compromising rationality in varying degrees and possibly, as a result, warranting either insanity or diminished capacity.

To sum up, an emotion-oriented understanding of moral rationality and insanity produces significant effects on the diminished capacity doctrine (in the form of partial excuse), as currently applied in U.S. jurisdictions. As the separation between cognition and emotion fades, the distinction between cognition-based volitional incapacity and emotion-based volitional diminished capacity proves to be meaningless. Moreover, as has already been emphasized, there is no reason why the diminished capacity doctrine should be limited to homicide. Therefore, consistent with Morse's proposal, diminished capacity should become a generic

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<sup>160</sup> *id.*, 301 ("Perhaps, however, the human mind cannot be compartmentalized as I imply because it is impossible to say that irrationality in one behavioral domain does not subtly affect rationality in another.").

partial excuse based on the substantial diminution of the capacities for rationality and control, which in turn arise from either cognitive and/or emotional impairments. However, as diminished capacity would be based on the same requirements as insanity, it should therefore be more correctly acknowledged as a form of partial insanity.

## IX. BROADENING THE CLASS OF PEOPLE ELIGIBLE FOR INSANITY DEFENSE (TOTAL AND PARTIAL)

The adoption of a tripartite insanity test implies an expansion of the legal notion of mental illness, and hence a broadening of the category of individuals that can potentially fall within its spectrum. Given that, as we have observed, the legal concept of mental illness revolves around the moral and legal conditions of responsibility, it follows that its substance has to be updated to reflect the new model of morality and rationality described above.<sup>161</sup>

The language of the insanity test I propose requires that the agent be either cognitively incapable of understanding the act he is committing, emotionally

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<sup>161</sup> Interestingly, the new emotion-oriented notion of insanity, which is based on an emotionally-oriented understanding of moral and rational behavior, when viewed in light of neuroscientific studies, appears to be consistent with a new diagnostic approach to mental illness and disorders—an approach which involves brain circuits that implicate the specific domains corresponding to cognition, emotion, or behavior. This approach forms the subject of the Research Domain Criteria (RDoC), a revolutionary project, currently underway, that is aimed at developing new diagnostic criteria and treatments for mental diseases and disorders, launched by the National Mental Health Institute (NMHI) in the United States in 2010. In contrast with the DSM, the RDoC framework conceptualizes mental illnesses as brain disorders. Moreover, in contrast to neurological disorders with identifiable lesions, mental disorders can be addressed as disorders of brain circuits. The RDoC does not follow the current disorder categories, as classified in the DSM 5. Rather, it is meant to set the parameters for disorders on the basis of abnormalities as established by basic behavioral neuroscience, as well as other biological parameters involving the patient's reported symptoms. For this reason, research for RDoC can be viewed as a matrix, in which the rows represent various constructs grouped hierarchically into broad domains of function (the five main domains are: 1) negative valence system, i.e. negative emotionality; 2) positive valence system, i.e. positive emotionality; 3) cognitive systems; 4) social processes; 5) arousal/modulatory systems). These domains are studied according to different variables, such as genes, neural circuits, physiology, behaviors, and self-reports. Of course, this project is still in its infancy, but in a decade or two it could mark a turning point in the evolution of psychiatry, as well as have a revolutionary impact on the legal domain. See Thomas Insel et al., 'Research Domain Criteria (RDoC): Toward a new classification framework for research on mental disorders' (2010) 167(7) *American Journal of Psychiatry* 748, URL= <<http://ajp.psychiatryonline.org/doi/pdf/10.1176/appi.ajp.2010.09091379>> accessed 2 May 2016; Nilamadhav Kar, 'Current concerns in psychiatric diagnostic process and the paradigm shift: Research domain criteria' (2015) 20 *Journal of Mental Health and Human Behavior* 12.

incapable of experiencing the usual moral sentiments associated with the criminal act, both cognitively and emotionally incapable of controlling his antisocial impulses, and therefore of conforming his behavior to moral and social standards in a given context. Thus, in light of the mental requirements needed to satisfy an insanity defense, the notion of mental illness would include “any mental disease or personality disorder which substantially affects cognitive or emotional processes and/or substantially impairs behavior control”.<sup>162</sup>

In addition to cognitive diseases - such as psychoses, schizophrenia, or mental retardation, which already fall on the borders of traditional insanity tests - the updated legal notion of mental illness would also include mental diseases or personality disorders (when serious) characterized by a lack of emotions and moral feeling towards other subjects, as well as those characterized by a lack of behavioral control.<sup>163</sup>

First and foremost, the new notion of mental illness, and therefore of insanity, would inevitably encompass the controversial category of disorders which are mainly characterized by moral/emotional indifference and/or deviancy, in other words, the category of socio-affective disorders, and especially psychopathy. At this point, we should recall that neuroscientific and neurocriminological research has in fact proven that these subjects exhibit abnormal and antisocial behaviors

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<sup>162</sup> See *McDonald v. United States* [1962] 312 F.2d, D.C. Cir. 851 (“A mental disease or defect includes any abnormal conditions of the mind which substantially affects mental or emotional processes and substantially impairs behavior controls.”). However, given the artificiality of the distinction between “mental and emotional”, and in keeping with neuroscientific data, I propose replacing the word “mental” with the word “cognitive”. Plus, as Fingarette has correctly noted, the expression “any abnormality” is too vague and imprecise, and would be better avoided; see Fingarette n. 5, 35.

<sup>163</sup> See Bernard Diamond, ‘From M’Naghten to Currens, and beyond’ (1962) 50 *California Law Review* 189, 198 (writing about people with a diagnosis of severe personality disorder, he observed that “[t]heir appearance of normalcy, their apparent ability to exercise free will, choice and decision [and somehow invariably choose the wrong instead of the right] is purely a façade, an artifact that conceals the extent to which they are victims of their own brain pathology”). See also George Palermo, *Severe personality-disordered defendants and the insanity plea in the United States: A proposal for change* (Eleven International Publishing, 2010) quoted by Ralph Slovenko, Commentary: Personality disorders and criminal law’ (2009) 37 *The Journal of the American Academy of Psychiatry and the Law* 182, 183 (“Individuals who have a severe personality disorder should be allowed to enter a plea of total or partial insanity based on evidence of a decompensation into irrational behavior at the time of the alleged crime, and should be allowed to present all exculpatory evidence available to them to prove their claim. The best approach for non-responsibility pleas would be to adopt a more inclusive formulation with less specific terminology, such as disease of the mind, abnormality of the mind, or impairment of the mind. He also points out that neuroimaging of individuals with a diagnosis of antisocial personality has revealed brain scans similar to those of individuals with psychosis.”).

*precisely because* they suffer from a lack of emotions. This not only impairs their ability to feel social emotions, but it also alters their cognitive responses.

Put differently, patients suffering from psychopathy, or socio-affective disorders in general, make immoral decisions because they are unable to generate and process the feelings that guide adaptive decision-making in healthy individuals. Therefore, even if these kinds of antisocial groups are perfectly capable of *verbally* distinguishing right from wrong (i.e. they are capable of *knowing* the moral, social, and legal meaning of an action), their abnormal lack of emotions nonetheless impairs their behavioral response. To put it differently, we might say that, if criminal law is an expression of a community moral conscience, psychopaths are, to use Fingarette's words, "blind to the morally relevant dimension of law, blind to what the law really means"<sup>164</sup>. As Raine and Yang suggest,

"It is predominantly the *feeling* of what is moral that is deficient in antisocial groups, rather than the *knowing* of what is moral. This moral feeling, centered on the PFC and amygdala, is the engine that translates the cognitive recognition that an act is immoral into behavioral inhibition—and it is this engine that functions less well in antisocial individuals"<sup>165</sup>.

In the absence of appropriate emotional responses, psychopaths lack the emotional motivation to behave morally. This means that, while psychopaths acknowledge the meaning of the word "wrong" and know what consequences derive from morally wrong acts, they are pathologically insensitive to them. As Morse puts it, "[t]he psychopath is not responsive to moral reasons, even if they

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<sup>164</sup> Fingarette n. 5, 189.

<sup>165</sup> Adriane Raine & Yaling Yang, 'Neural foundations to moral reasoning and antisocial behavior' (2006) 1:3 *Social Cognitive and Affective Neuroscience*, 202; Andrea Glenn et al., 'Increased DLPFC activity during moral decision-making in psychopathy' (2009) 14 *Molecular Psychiatry*, 909 (giving a compelling explanation concerning the role of the DLPFC in psychopathy. They claim that psychopaths show an increased activation in DLPFC during emotional moral decision-making. This means that psychopathic individuals, who show reduced amygdala activity when processing the emotionally salient moral dilemmas, may use abstract reasoning processes to a greater extent than less psychopathic individuals. This might mean that, even if psychopaths may make use of alternative cognitive strategies to process emotions, they may still lack the motivation to translate their moral judgments into appropriate moral behavior).

are responsive to other [instrumental] reasons”.<sup>166</sup>

Insensitivity to the moral significance of an act implies insensitivity to the punitive consequences that can follow. Just as psychopaths are morally blind to the binding force of law, they are also unable to feel and perceive the significance of the threat of punishment, which by definition deters people from committing crimes. In other words, psychopaths and patients belonging to the class of antisocial and affective disorders alike simply cannot be deterred by the threat of detention. In a nutshell, an updated notion of mental illness, in light of the paradigm of insanity, would therefore have to encompass the mental conditions that typically fall within the category of moral insanity. Consequently, even antisocial personality disorders, when serious, would be included in the range of conditions that are potentially grounds for an insanity verdict.

In addition to diseases and disorders characterized by a lack of emotions and affect, the emotion-oriented legal notion of mental illness would also encompass those forms of personality disorders characterized by a lack of emotional and behavioral control. This includes those that, according to the classification provided by the DSM V, fall under the category of Impulse Control Disorders, such as Bipolar Personality Disorder, Intermittent Explosive Disorder, pyromania, etc. At this point, a caveat is needed. These disorders would matter only when serious, and only when it is sufficiently proven that, as the result of significant emotional and/or cognitive dysfunctions, the defendant was unable to refrain from his antisocial behavior. In other words, it would have to be convincingly proven that these types of mental diseases - and, especially, personality disorders - had a significant disruptive effect on moral agency.

An extreme version of an expanded notion of mental illness encompassing control disorders (*which I do not support*) would extend even further. It would include forms of volitional dyscontrol arising from severe transient decompensation - even when these were not symptoms of a pre-existing psychiatric pathology - provided that they had totally obscured the subject's capacity to control himself when perpetrating the criminal act. An argument in support of this viewpoint could be that, in the end, insanity tests demand that an agent had to have been lacking the relevant mental makeup necessary for

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<sup>166</sup> Morse n. 87, 208.

culpability and responsibility *at the time of the crime*.<sup>167</sup> If we take this detail regarding the time of the crime literally, there would be no reason to exclude that a transient severe volitional breakdown - such as in the case of “acting out”- could disrupt one’s rational capacities, and thus provide sufficient elements of insanity.

Admittedly, many theorists would argue against an expansion of the insanity defense, citing as their main reason the disruption of public order. However, broadening the class of individuals who qualify for the insanity defense would not result in any heightened hysteria or sudden surge in lack of responsibility. Furthermore, the practical results of broadening the insanity test would not be likely to have a dramatic effect on the number of offenders who actually sought the insanity plea. While more offenders might become eligible for the defense, few of them would likely choose to raise it, either for fear of the stigma of insanity, of the commitment to a mental hospital or of the prospect of indeterminate detention.

## X. CONCLUDING THOUGHTS

This analysis, by demonstrating how an emotion-oriented understanding of culpability - based on neuroscientific disciplines- might affect the meaning and the substance of both insanity and diminished capacity doctrines, concludes the analysis conducted with this thesis. As for insanity, the incorporation of the emotional factor into notions of moral rationality and self-control leads to an expansion of the substance of insanity tests in two respects. First, it brings about the introduction of an emotional capacity test, in addition to the pre-existing cognitive and volitional ones. Said emotional test would have to require that the agent be able to feel or affectively perceive the moral and social meaning of his conduct - regardless of whether he is also able to know or understand the factual meaning of his act or that the act is contrary to society’s morals.

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<sup>167</sup> See Slovenko n. 163, 185 (“Depending on the circumstances, even the most stable person can become unhinged. [...] The state of mind at the time of the offense determines criminal responsibility.”).

The second repercussion concerns the substance of volitional incapacity or control tests. The substance of volitional tests is currently quite uncertain, both conceptually and epistemologically. Some understand volitional incapacity to be a logical consequence of cognitive incapacity, while others (with a more libertarian bent) understand it to be an autonomous prong, independent of any other mental faculty. None of these descriptions take into account volitional incapacity arising from emotional dysfunction. On the contrary, loss of control due to emotional breakdown is either considered to be irrelevant in terms of grounds for an excuse (as mostly happens in the Italian system) or it forms the subject of specific diminished capacity doctrines, ones which lead only to recognizing a lesser degree for specific crimes (as in the case of the Heat of Passion or EED doctrines in homicide in the U.S.).

By contrast, if we accept that emotions, alongside cognition, are also crucial components of self-control, and that the two spheres contribute equally to the quality of our behavioral response in a given context, this means that volitional incapacity has to be reconceptualized to also encompass the emotional factor (i.e. emotional dysfunctions). Consequently, the law's different understanding and treatment of volitional incapacity arising from cognitive breakdowns versus volitional incapacity due to emotional breakdowns proves to be meaningless and unrealistic.

An expanded notion of insanity, which takes into account the emotional factor, would also produce significant consequences for partial insanity and diminished capacity doctrines. As for partial insanity, the consequences are the same as those for insanity. In other words, the substance of partial insanity tests would be modeled on that of insanity tests, with any difference between the two doctrines being merely quantitative.

As for diminished capacity doctrine, such as the Heat of Passion and EED doctrines adopted by Anglo-American jurisdictions, the consequences of expanded notions of moral rationality and insanity might be much more significant. One plausible consequence could be acceptance of the proposal made by professor Stephen Morse, which entailed broadening the scope of diminished capacity so that it would become a generic partial excuse covering those cases in which the defendant acted under the effect of a substantial impairment of his

rational capacity (i.e. cognitive and volitional capacities). By combining this proposal with an updated, emotion-oriented notion of moral rationality and self-control, it follows that the requirements upon which a broad understanding of diminished capacity would be based would be the same as those upon which insanity is based. Therefore, the legal nature of diminished capacity would become indistinguishable from that of a generic partial insanity defense.

Expanding the notion of insanity inevitably leads to broadening the class of people potentially eligible for insanity pleas (total or partial). In addition to people suffering from cognitive diseases at the time of the crime (who are already suitable potential candidates for insanity defense as it currently stands), the introduction of an emotional prong would extend the defense to cover the category of people suffering from diseases or disorders characterized by a lack of or significantly deviant emotions, such as patients suffering from socio-affective disorders, e.g. psychopaths.

Moreover, acknowledging the role of emotions in self-control, and therefore including emotional dysfunctions in the relevant psychological set of disorders eligible for volitional incapacity, would also make disorders characterized by impulse control suitable grounds for insanity. The assessment of volitional capacity would thus not only be conducted also on an emotional basis, but would also be separated from the cognitive one. Granted, the fact that these disorders would now fall under the umbrella of the types of conditions that may potentially lead to insanity does not mean that their presence automatically leads to an insanity verdict. It would have to be sufficiently proven that they were so serious that they totally or substantially compromised either the individual's emotional, cognitive or volitional capacity to be a moral agent at the time of the crime.

I shall conclude by saying that the fear of an excessive expansion of the insanity defense, and subsequently of the number of potential eligible candidates, cannot be allowed to form an obstacle to the acknowledgment of a more accurate and realistic notion of insanity. If we now know that moral rationality requires the possession of additional mental factors—ones which criminal law has always disregarded—then it is crucial that criminal law begin taking those mental factors into consideration, *especially* in the insanity doctrine.

In line with the principle of personal guilt, which I firmly support and which strongly inspires my legal thought, it is my opinion that it is only through a far-reaching and neuroscientifically sound understanding of insanity that criminal law will be able to adequately comprehend and incorporate the relevant aspects of what constitutes morally rational behavior. Only then will it be able to grasp the real sense of when a person is actually morally and legally worthy of blame for the crime he has committed. If responsibility and punishment are to be based on—and proportionate to—actual blameworthiness and desert, then it is simply unfair to continue ignoring the capacities that actually make us moral agents.



## APPENDIX

### EXAMPLES OF EMOTION-BASED FORMULATIONS OF INSANITY AND DIMINISHED CAPACITY STANDARDS

#### ITALY

##### ARTICLE 85 CP

##### *IMPUTABILITÀ*

###### ORIGINAL FORMULATION

No one shall be punished if, at the time of the crime, he was not *imputabile*.

One is *imputabile* if he has either cognitive and volitional capacity (*capacità di intendere e di volere*).

###### *NEW FORMULATION*

No one shall be punished if, at the time of the crime, he was not *imputabile*.

One is *imputabile* if he has *either emotional, cognitive, and volitional capacity (capacità di percepire il significato sociale della propria condotta, di intendere, e di volere)*.

##### ARTICLE 88 CP

##### TOTAL INSANITY

###### ORIGINAL FORMULATION

“A defendant who, at the time of the crime, was in a mental condition - due to mental illness- such that either his cognitive, or volitional capacity was totally impaired, is not *imputabile*”.

*NEW FORMULATION*

“A defendant who, at the time of the crime, he was in a mental condition - due to mental illness- such that *either his emotional, or cognitive, or volitional capacity* was totally impaired, is not *imputabile*.”

ARTICLE 89 CP  
PARTIAL INSANITY

ORIGINAL FORMULATION

“A defendant who, at the time of the crime, was in a mental condition such that either his cognitive or volitional capacity (*capacità di intendere o di volere*) was seriously compromised, without being totally impaired, he would be considered to be *imputabile*, but his sentencing would be reduced”.

*NEW FORMULATION*

“A defendant who, at the time of the crime, was in a mental condition such that either *his emotional, or cognitive or volitional capacity (capacità di percepire il significato sociale della propria condotta, o intendere o di volere)* was seriously compromised, without being totally impaired, he would be considered to be *imputabile*, but his sentencing would be reduced”.

ARTICLE 90 CP  
EMOTIONS AND PASSIONS

ORIGINAL FORMULATION

“Emotions and passions do not exclude nor diminish *imputabilità*” (= Do not affect insanity).

*ELIMINATED*

## UNITED STATES

### INSANITY TESTS

#### M'NAGHTEN RULE

##### ORIGINAL FORMULATION

To establish a defense on the grounds of insanity, it must be clearly proved that, at the time of the committing crime, the party accused was laboring under such a *defect of reason, from diseases of mind*, that affected *to know* the nature and quality of the act he was doing; *or, if he did know it, he did not know that he was doing what was wrong.*

##### NEW FORMULATION

To establish a defense on the grounds of insanity, it must be clearly proved that, at the time of committing the act, the party accused was laboring under such a defect of rationality, *from cognitive and/or emotional diseases or disorders, of such a significance that seriously affected his capacity either to know the nature and quality of the act he was doing, or to feel that his act was wrong, or to conform his behavior either to his knowledge, or to his feeling.*

#### AMERICAN LAW INSTITUTE TEST (SECTION 4.01 MODEL PENAL CODE)

##### ORIGINAL FORMULATION

- (1) A person is not responsible for criminal conduct if at the time of such conduct as a result of *mental disease or defect* he lacks *substantial* capacity either to *appreciate* the criminality of his conduct or to *conform* his conduct to the requirements of the law.
- (2) As used in this Article, the terms 'mental disease or defect' do not include an abnormality manifested only by repeated criminal or otherwise anti-social conduct"

##### NEW FORMULATION

- (1) A person is not responsible for criminal conduct if at the time of such conduct

as a result of a mental disease or disorder, *causing cognitive and/or emotional impairments*, he lacked substantial capacity either *to understand the factual meaning of his conduct, or to feel the criminality of his conduct, or to control his conduct in the circumstances, and thus to conform his conduct to the requirements of the law.*

(2) Eliminated

### DIMINISHED CAPACITY TEST

ORIGINAL FORMULATION OF EED DIMINISHED CAPACITY AS A  
SPECIFIC PARTIAL EXCUSE: EXTREME EMOTIONAL DISTURBANCE

SECTION 210.3 (b) MPC

Criminal homicide constitutes manslaughter when:

[...]

(b) a homicide which would otherwise be murder is committed under the influence of extreme [...] emotional disturbance for which there is reasonable explanation or excuse. [...]

*NEW FORMULATION OF DIMINISHED CAPACITY AS A GENERIC PARTIAL EXCUSE*

(Combination of Stephen Morse's 'Guilty but Partially Responsible' verdict and the emotion-based notions of moral rationality and insanity)

*"A defendant is partially insane if, at the time of the crime, he suffered from a mental disease or defect that partly diminished either his cognitive, or emotional or volitional capacity, thereby affecting his criminal conduct."*

# Conclusion

## I. WHAT THIS THESIS *HAS* DEMONSTRATED: SUMMARY AND ILLUSTRATION OF RESEARCH FINDINGS

The research conducted in this thesis led to a proposal for an emotion-oriented general theory of culpability with the aid of the neuroscience of moral decision-making and antisocial behavior. In particular, this thesis has sought to demonstrate how the notion of culpability might change were neuroscientific assumptions about moral and criminal thought integrated in its relevant psychological set, as well as such a revised notion of culpability would be more in line with blameworthiness and the principle of personal guilt. Although the development of this general theory of culpability is still in its preliminary stages - for many aspects and corollaries need further investigation, it still provides useful food for thought for criminal legal scholars. More specifically, it offers a new, alternative way of interpreting the notion of culpability, and culpability doctrines, by using neuroscientific knowledge. This, so far, has never been done.

Let us go back over the steps taken in this research to see what this research has demonstrated. This research began with tracing the essential meaning of culpability. Among the main understandings of this doctrine, this research used Kimberly Ferzan's "holistic" conception of culpability as the building block from which to develop its central argument. According to the holistic account, culpability reflects the relevant mental states that make up the practical reasoning leading an individual to opt for antisocial decisions, and thus unlawful conduct. Importantly, these states of mind must exhibit blameworthiness, i.e. they have to reflect the relevant wrongdoer's lack of concern for legally protected values.

Using this conception of culpability as the fundamental normative benchmark, this research investigated the mental traits that the criminal law considers to be relevant to meet the requirements of the notion of culpability, that is, it investigated the mental foundations of culpability. It did so by depicting the legal ideal of the culpable agent, and of his Legally Relevant Mind. The investigation on the model of the culpable agent, and thus on the paradigm of the Legally Relevant Mind, has brought to light that

(Western) criminal law holds a strong rationalist view of human thought and behavior - moral and criminal alike.

This rationalist view lies at the heart of culpability notions. In fact, legal descriptions and interpretations of legal doctrines pertaining to culpability only comprehend descriptive cognitive and volitional components, both of which - the criminal law assumes- derive from an individual's powers of cognitive intelligence. To put it slightly differently, the analysis of the mental traits that criminal law considers for culpability ascriptions showed that culpability is founded in two mental faculties: the cognitive faculty to know, or understand the significance of one's conduct, and the volitional faculty to choose to act upon this knowledge, or understanding, while willfully not resisting antisocial impulses.

According to the legal perspective, any rational individual knows what he does, he chooses to act based on this knowledge, and he acts accordingly. Criminal law thus views cognitive and volitional faculties as the only essential faculties that make up the relevant practical reasoning leading up to culpable conduct. As a consequence, criminal law uses the syllogism "Knowing, *thus* Choosing, *thus* Acting" to derive the blameworthy character of an individual's choice to act unlawfully. That is, criminal law infers an individual's attitude of disregard for legally protected values on the sole fact that he knows what kind of conduct he is engaging in, he chooses to act upon this knowledge, and he acts accordingly.

Importantly, criminal law ascribes said cognitive and volitional faculties to the powers of cognitive intelligence, which is viewed as the sole relevant mental faculty driving rational (law-abiding and antisocial alike) decision-making and practical reasoning. Therefore, an agent is potentially culpable as long as either he possesses an intact cognitive intelligence that enables him to know, or understand, and thus to choose his course of unlawful conduct, or he makes use of his cognitive intelligence to engage in unlawful conduct both consciously and willfully.

As has been illustrated, the rationale underlying the criminal law's intellectualist view of human thought lies primarily in historical reasons. It is very well known that current criminal laws in the Western tradition have been strongly influenced by the Classical (and Neo-Classical) schools of thought, which were largely inspired by the principles of the Enlightenment. By viewing Reason as the foundation of rational thought, and by

identifying Reason in intellect or intellectual powers, Classical thinkers espoused an intellect-based conception of criminal responsibility. That is, the core presumption underlying criminal responsibility soon became that intellect (*rectius: cognitive intellect*) is the only driving force of rational thought and behavior, law-abiding and criminal alike. According to the Classical (and later Neo-Classical) thought, rational human beings only make rational choices as long as they are guided by their cognitive intelligence. It is cognitive intelligence that makes them aware of the significance of their conduct, and thus drive their choices on the basis of this awareness.

The rationalist tenets of criminal responsibility, as they were supported by (Neo)Classical thought, still form the bedrock of current criminal laws. In line with the Classical perspective, criminal law views *cognitive intellect (quo Reason)* as the sole source of rational behavior. Thus, cognitive intellect forms the only mental sphere of the Legally Relevant Mind.

While cognitive intelligence is thought of as the only mental sphere making up the Legally Relevant Mind, criminal law excludes any role of emotion and affective states. In line with the rationalist perspective, as well as with common sense, criminal law views emotions as nothing more nor less than mental occurrences that disrupt rational thought. Therefore, emotions are not ascribed to the range of the relevant faculties making up practical reasoning resulting neither in law-abiding nor criminal decisions. In a nutshell, criminal law views emotions as antithetical to rational thought. Thus, emotions have a very marginal role in culpability.

Having delineated the essential features of the Legally Relevant Mind underlying the notion of culpability, the thesis moved to measure it against the findings about moral decision-making processes and antisocial behavior offered by behavioral and, notably, neuroscientific studies. The analysis of both behavioral and neuroscientific literature has brought to light a quite different picture of the framework of how rational decision-making works in moral and antisocial contexts, compared to the one traditionally adopted by criminal law.

Most importantly, research in neuroscientific disciplines highlights that emotions - both basic and moral- are fundamental components of our rational thought, moral and antisocial alike. First, neuroscientific literature suggests that our moral judgments - especially *personal* moral judgments (i.e. judgments involving interests of other

individuals) - are also, and significantly, influenced by socio-emotional mechanisms.

Our moral decision-making is significantly informed by our emotions, which, when coupled with cognitive functions, give rise to our rational, and morally appropriate behavior in a given social context. Second, neurocriminological literature about the neural correlates of different kinds of antisocial behavior suggests that a considerable number of antisocial traits, possibly resulting in antisocial conduct, are associated with dysfunctions in the same socio-emotional circuits that are positively correlated with moral judgments and decision-making.

On the whole, the investigation on the neural correlates of moral decision-making processes highlighted that emotion - not only cognition- crucially contributes to our choices, moral and antisocial alike. On the contrary, cognitive intelligence alone cannot produce morally rational decisions, and thus behaviors, without emotional influence.

The inquiry into neuroscientific assumptions about moral decision-making processes and antisocial behavior outlined that the criminal law's intellectualist presumptions about rational thought, which constitutes the essence of culpability, are flawed in many respects. In view of this, the thesis sought to revise criminal law's flawed assumptions about the mental foundations of culpability, and thus rethink the general notion of culpability by including emotions in its relevant psychological set. First, it argued that emotion is a fundamental component of practical moral reasoning and decision-making processes leading up to rational, either law-abiding or antisocial, conduct. Second, it argued that cognition leads to rational, moral behavior only when it is coupled with emotion. Third, it provided a reinterpretation of the legal concept of volition, and thus of the faculties of choice and impulse control.

Notably, the thesis argued that our choice-making, as well as our capacity to control (antisocial) impulses, does not depend on prior knowledge, or understanding, of either the factual or moral significance of our actions. Rather, our volitional faculties of choice-making and impulse control depend on a distinct mechanism of wilful suspension of our short-term gratifications with the concomitant prioritization of long-term outcomes. In this mechanism, both affective and cognitive factors carry equally important roles in motivating and shaping our choices, as well as in inhibiting our impulses. More specifically, our choice-making and impulse control derive first from the way our emotions make us appraise the significance of salient stimuli (thereby

prompting a response to those stimuli) and, second, on the way our cognitive functions modulate and regulate down our emotional responses.

A relevant piece of information for the law is that the faculty to select appropriate behavioral responses, as well as to hold back impulses, actually derives from one's ability to act in accordance with his/her moral judgment (i.e., a judgment on what is right and what is wrong) when faced with morally conflicting temptations or provocations in a given context. Since moral judgments are significantly influenced by our emotions, it follows that one is able to make morally appropriate choices, and retain antisocial impulses, as long as he emotionally cares, i.e. is morally triggered, about the affective consequences of being controlled, and therefore of behaving in socially agreeable fashion. Importantly, this faculty is not related, nor does it depend on, one's verbal understanding, or knowledge, of either the factual or moral significance of his conduct.

After revising flawed legal assumptions in light of neuroscience, the thesis moved to reconsider the substance of the Legally Relevant Mind. This part of investigation resulted in an expansion of the spheres of the Legally Relevant Mind, as well as of the legally relevant faculties that compose the mental foundations of culpability. In particular, the Legally Relevant Mind moved from one-dimension - i.e. cognitive intelligence- to *three-dimension-* emotion, cognitive intelligence, volition.

Under a tripartite structure of the Legally Relevant Mind, emotion would serve as a sphere responsible for one's feeling of the moral significance of engaging in criminal conduct, and possibly doing social harm. Cognitive intelligence would keep its role of enabling one's knowledge, or understanding, of the factual, and moral, significance of engaging in criminal conduct, and possibly doing social harm. Contrary to the traditional version of the Legally Relevant Mind, cognitive intelligence would not be seen as responsible for also enabling one's choice to act upon antisocial impulses, nor for one's capacity for impulse control. Rather, volition (as has been conceptualized above) would be an autonomous sphere of the Legally Relevant Mind, and would be responsible for enabling one's choice to engage in antisocial conduct, and possibly do social harm, as well as for one's capacity for self-control. Based on this new model of the Legally Relevant Mind, the ideal culpable agent should exhibit the following mental traits: first, he should (be able to) feel the moral significance of his actions, he should

(be able to) know, or understand, the factual and moral significance of his actions; he should (be able to) choose his course of conduct, while being able to control his antisocial impulses.

The reconsideration of the mental foundations of culpability eventually led to an argument for revising the general notion of culpability. This argument began with a criticism of the excessive abstractism of the traditional foundations of culpability, as is further confirmed by the analysis of the cerebral dynamics underlying moral decision-making and antisocial behavior. This abstractism proves defective in two respects: first, it does not take into proper consideration the moral nature of criminal actions. As has been argued, criminal actions are not ordinary actions, but involve a type of judgment (i.e., moral judgment) that ultimately expresses a disregard for individual or community values. Second, and consequently, the abstractism featuring culpability is not able to fully depict an individual's actual lack of concern, or disregard, for legally protected values, i.e. his actual blameworthiness.

Therefore, as has been suggested, a notion of culpability that is actually able to grasp the blameworthy mental dimension behind criminal actions should be enriched with all relevant mental factors that contribute to moral and criminal decision-making, and behavior. Only by "situating" the mental foundations of culpability in the processes that undergird and guide moral decision-making and antisocial behavior, can the notion of culpability be really *holistic*. That is, it would truly reflect the blameworthy essence of the states of mind guiding an individual's practical moral reasoning leading up to criminal behavior.

Furthermore, and more importantly, the fundamental rationale underlying the reconsideration of the notion of culpability with the aid of neuroscientific assumptions about emotions, moral decision-making, and antisocial behavior lies in a strict interpretation of the principle of personal guilt, which lies at the heart of culpability. The principle of personal guilt mandates that criminal conduct must fully belong to the mental domain of the wrongdoer. This mental belonging can be translated with an individual's inner approval to harm the interest of other individuals, thereby truly exhibiting a lack of concern, and thus blameworthiness. In view of this, an actual personalist notion of culpability cannot be grounded in abstract reasoning, and descriptive states, but should reflect all mental dynamics that undergird the decision

sequence leading up to criminal conduct. Integrating this understanding of culpability with insights into emotions and moral decision-making definitely meets this need.

After concluding the part of investigation about the reconsideration of the general notion of culpability with the aid neuroscience, Part Two of the thesis tested this alternative theory on selected culpability doctrines, namely *mens rea* (notably, the *mens rea* state of criminal intent), insanity, and the common law's diminished capacity doctrine. This part of analysis was intended to provide concrete examples of how the implementation of an emotion-oriented theory of culpability might affect the substance of said culpability notions.

Beginning with *mens rea*, the research suggested that the implementation of an emotion-oriented understanding of culpability would provoke an expansion of the relevant set of *mens rea* states by including the quality of the feeling that moved and motivated an agent to engage in criminal conduct as a further component of their essential substance - in addition to the pre-existing cognitive and volitional ones. To test this hypothesis, the research explored the impact of the alternative notion of culpability on criminal intent. The traditional notion of intent comprehends two prongs, i.e. the cognitive prong of knowledge to engage in criminal conduct and do harm, and the volitional prong to wilfully choose to act accordingly.

The implementation of an emotion-oriented notion of culpability would provoke an expansion of the substance of criminal intent, by including affective states as a third prong of its structure. As emotion in *mens rea* may be translated as the feelings moving an individual to act unlawfully, the notion of criminal intent - which is the most severe *mens rea* state, and thus expresses an individual's maximal disdain for legal values - embracing this perspective, would be integrated with the feeling of malicious disregard that moves and motivates an individual to act unlawfully, and do harm. Importantly, a corollary of the addition of an emotional component in the substance of criminal intent would be the reconsideration of the role of motives, which would come to be viewed as an integral part of the substance of criminal intent, and would therefore be considered in the evaluation of criminal responsibility - not only for sentencing purposes.

The implications deriving from the implementation of an emotion-oriented theory of culpability on legal doctrines are even more glaring for substantial capacity doctrines, notably the doctrine of insanity and that of diminished capacity. As the analysis

conducted in Chapter Five showed, the adoption of an emotion-oriented notion of culpability, which is grounded in a tripartite model of the Legally Relevant Mind, may produce significant consequences for both the substance of insanity and the requirements of insanity standards. The inquiry into the effects of the developed alternative notion of culpability on insanity took on a comparative note. More specifically, the inquiry compared the effects that an emotion-oriented notion of culpability may produce for the insanity doctrine in Italy -representative of civil law systems - and the USA- representative of common law systems.

Overall, the analysis demonstrated that the implementation of an emotion-oriented notion of culpability would provoke an expansion of insanity tests. More specifically, insanity tests would become tripartite i.e., inclusive of emotional, cognitive, and volitional prongs. The emotional prong would equate to an emotional capacity test - i.e. a test measuring the defendant's capacity to feel the moral significance of his conduct; the cognitive prong would equate to an intellectual capacity test - i.e. a test measuring the defendant's understanding of the factual and moral meaning of his conduct-; the volitional prong would equate to a control test - i.e. a test measuring the defendant's capacity to control his impulses. Importantly, the volitional prong would be reconsidered by including emotion in its relevant substance. Also, the volitional prong would be distinct and autonomous from the cognitive one.

While in the Italian, and more generally in civil law systems, the revision of insanity would be equal for both total and partial insanity (the only difference being merely quantitative), in the US system - and, more generally, in common law systems - the reconsideration of insanity through the inclusion of emotions would provoke a rethinking of the relationship between insanity and the diminished capacity doctrine.

More specifically, stemming from Professor Stephen Morse's argument for reconsidering the nature of diminished capacity and turning it into a generic partial excuse, this research showed that the inclusion of emotion into the substance of legal insanity would precisely put insanity and diminished capacity doctrines in a continuum relationship. In fact, by rethinking the relationship between volition and emotion - that is, by accepting that volitional impairments would meet insanity criteria also when they are due to emotional dysfunctions- the requirements to meet insanity and diminished capacity standards would be just the same. Therefore, the difference between insanity

and diminished capacity would turn out to be purely quantitative, and diminished capacity would be transformed into a generic partial excuse of the same kind as the partial insanity doctrine of civil law systems.

To conclude, this research made initial, yet significant steps towards the development of an alternative theory of culpability based on neuroscientific insights into emotions and moral decision-making. The most significant aspect of this alternative theory of culpability is that it is grounded in more realistic mental foundations that actually undergirds rational decision-making and practical reasoning in moral contexts. As such, this understanding of culpability is assumed to be more empirically accurate, as well more legally desirable than the current understanding. The latter does not take into proper consideration the actual mental processes that underpin decision-making leading up to criminal behavior, and thus appears to be excessively abstract and individualistic.

Although much work is still ahead of me to explore in more depth all the possible corollaries deriving from the implementation of this alternative theory of culpability, the results produced with this research still provide useful insights and a new perspective to reconceive of culpability, and thus offer an adequate basis to consider an emotion-oriented notion of culpability in light of neuroscience as a concrete, valid alternative to the traditional notion of culpability that is currently adopted by criminal law.

## II. WHAT THIS THESIS HAS *NOT* DEMONSTRATED: SETTING THE STAGE FOR HYPOTHETICAL FUTURE STEPS OF RESEARCH

This thesis moved the first steps towards an emotion-oriented conception of culpability through the incorporation of neuroscientific insights into emotion and moral decision-making processes and antisocial behavior in the relevant set of its mental foundations. More specifically, it provided a general alternative definition of culpability, while using selected culpability doctrines to start testing the concrete effects deriving from its implementation. Space and time did not allow me to explore in more depth all possible implications that may derive from this alternative understanding of culpability.

Nevertheless, this thesis may well serve as a starting point to undertake further investigation in the future, and thus deepen all other corollaries of this alternative

conception of culpability that has been developed in this PhD research. In particular, to understand the actual scope of this alternative, neuroscientifically-informed general theory of culpability, further research is needed to measure what implications it may have for further culpability doctrines, as well as for more practical legal contexts. Some examples of future research steps are provided in the following subsections.

A. Analysis of the impact of the developed alternative theory of culpability on all *mens rea* states, as well as other culpability doctrines (e.g., mistake of fact, duress, etc.)

The research conducted in this thesis has provided an initial example of how an alternative emotion-oriented notion of culpability may affect culpability doctrines. Notably, I have tested the impact of said theory on the *mens rea* state of criminal intent, as well as on legal insanity and diminished capacity. While the analysis of the theoretical implications that said theory of culpability might have on insanity and diminished capacity proved quite exhaustive, an investigation on how an alternative notion of culpability might impact further culpability-related doctrines would be necessary.

Notably, it should extend to analyze the implications for all *mens rea* states (recklessness, negligence, etc.). Such research would assess, first, how the incorporation of emotions might change the substance of each *mens rea* state and, second, if different conceptualizations of *mens rea* states, inclusive of emotions, might also provoke a shift of the boundaries of each *mens rea* state. That is, it would assess whether criminal actions traditionally falling within the scope of a given *mens rea* state would fall within the scope of another *mens rea* state according to new conceptualizations inclusive of emotional components.

Moving beyond *mens rea*, further steps of research following up this alternative theory of culpability might involve other culpability-related doctrines. For instance, it would be interesting to investigate whether the influential role of emotions on the cognitive faculties of knowledge and understanding might produce a different interpretation and application of the mistake of fact doctrine.

On the whole, further research is needed to test this alternative general theory of

culpability on all culpability-related doctrines, in order to have a complete picture of how culpability might concretely change in all its respects.

#### B. Analysis of the impact of an emotion-oriented theory of culpability on adjudication and sentencing

Another possible future research step to complete this alternative theory of culpability could be that of testing said theory on adjudication and sentencing in criminal proceedings. As is well known, there have been many attempts worldwide to present and use neuroscientific evidence for responsibility assessments in criminal trials. Aside from forensic issues about the admissibility and reliability of neuroscientific techniques in legal contexts, brain-based evidence has mostly been unsuccessful at helping adjudication and sentencing also for substantive reasons. More specifically, the kind of information provided by neuroscience in criminal trials has often been considered to be irrelevant in proving the “substance” of current legal standards.

I strongly hypothesize that the cause of the alleged substantive irrelevance of neuroscientific evidence to responsibility evaluations lies precisely in persistent conceptual mismatches between material criminal law and neuroscience. For instance, in insanity-defense cases, brain-based evidence has often shown that the defendant was suffering from severe abnormalities in specific brain circuits or areas that are significantly involved in either emotional and/or volitional processes. Nonetheless, courts did not take this evidence into consideration, for the mental impairments that were linked to those brain abnormalities did not meet the legal criteria set by insanity tests. Put differently, the evidence offered by neuroscience did not (cor)respond to existing substantive legal requirements.

By changing the conceptual substance of culpability, and of culpability doctrines, with the aid of moral neuroscience, and thus by creating conceptual matches between material criminal law and neuroscience, practical consequences would inevitably flow. Not only would the boundaries of the subject of responsibility adjudication change, but the use of neuroscientific evidence to help adjudication would be more legitimate, or even necessary. For instance, evidence of traumatic brain injury or abnormalities found

in the structure or function of brain regions associated with emotion processing may offer better insights into the defendant's current mental state, as well as provide additional factors to take into account when exploring his mental state at the time of the crime. Also, by making emotions a further component of culpability and responsibility, perhaps neuroimaging may offer an opportunity for a more therapeutic sentencing framework that takes into account the actual defendant's mental and personality features in relation to the crime committed, as well as to the likelihood of future re-offending.

In summary, further research could investigate how the boundaries of responsibility assessments and sentencing decisions might change were emotions used as a further benchmark for adjudication in criminal trials, and how neuroscience might realistically help. More specifically, it could examine how neuroscientifically informed culpability doctrines might concretely be evaluated in criminal trials, how the outcomes of criminal trials could change, and what kind of evidence neuroscience can offer to help fact-finders.

### C. Analysis of the impact of an alternative notion of culpability on justice and correctional approaches

Another hypothetical future step of research to complete the analysis of an alternative emotion-oriented conception of culpability would be that of applying the developed emotion-oriented theory of culpability to justice and correctional approaches. The premise is that if emotions are the key components of moral decision-making processes and social behavior, then a correctional model that is consistent with this understanding of moral and social behavior could not but aspire to offenders' social functioning through an emotional transformation.

Based on this premise, further investigation could measure said alternative notion of culpability against the dominant approaches to punishment, in order to assess which of them would be most compatible with this alternative understanding of culpability. For example, future research could investigate whether an alternative notion of culpability would be more in line with retributivism, or with general deterrence, or if such an understanding of culpability actually proves more compatible with minor justice approaches, such as rehabilitation and restorative justice.

Furthermore, it would be interesting to investigate the feasibility of a correctional model aiming at the reform of offenders' moral and social attitudes through emotional reshaping. One possible line of research could be that of investigating whether the implementation of an alternative, emotion-oriented understanding of culpability could serve as a valid theoretical background to justify alternative ways of dealing with criminality - other than incarceration-, one which aims at offenders' social and emotional transformation, like restorative and rehabilitative measures.

For instance, research in penology suggests that restorative and rehabilitative measures are likely to elicit emotions like guilt, shame, and remorse in offenders, thereby increasing their capacity for empathy. Penologists (supported by neuroscientists) also hypothesize that these emotions are best created outside of prison or other security facilities, with alternative (or supplementary) justice processes designed to allow a wide range of inclusionary socially rehabilitative strategies. Importantly, the assumption underlying rehabilitative and restorative practices is that different ways of trying to shape offenders' emotions will be effective for different kinds of offenders. Individualized programs, which are tailored to the features of single offenders, are assumed to enable significantly positive transformations in offenders' emotional dimension, and therefore are very likely to reduce future re-offending.

All things considered, a hypothetical future step of research could explore whether an alternative, emotion-oriented notion of culpability might help identify new, and perhaps more efficient ways of dealing with criminality, perhaps with safer and more humane outcomes. On the whole, an emotion-oriented theory of culpability could serve as a basis for a new paradigm of "emotionally intelligent justice", a justice which recognizes and attempts to manage the effects of emotions in influencing and treating the behavior of offenders.

### III. CONCLUSIVE REMARKS

Over the course of my research, I gradually understood that this thesis aimed at achieving two goals: the first goal - that was meant to be achieved since the beginning of this thesis - was neurolegal, thus descriptive; the second goal was purely legal, thus

normative. As with the former, from the beginning this thesis aimed at offering a potential approach through which neuroscience could profitably dialogue with criminal law. In other words, the initial scope of this research was to reinterpret legal notions with neuroscience, and thus fill legal notions with scientific assumptions. While searching for the means to satisfy this goal, and therefore understanding how to make this dialogue possible, I realized that a worthwhile key to connect neuroscience and criminal law was to explore the neuroscientific insights into emotions and moral decision-making processes to re-interpret the mental foundations of culpability. This idea was illuminating and profoundly inspiring.

The more I was reading neuroscientific literature, the more I found contrasts with current legal notions, the more I realized that this was one of the few keys that could allow for a fruitful combination between criminal law and neuroscience. In other words, I understood I could use the neuroscientific literature about the role emotions in moral, and antisocial, behavior to create a bridge between neuroscience and criminal law, and thus offer a way by which these two branches of study could profitably work out together. Although this type of descriptive research would have surely been interesting, yet it could not be satisfying at a normative level. That is, while providing an interesting contribution on how neuroscientific disciplines might potentially change legal concepts, this thesis risked to not have any relevance at a normative level.

This risk got gradually disavowed during the following steps of my research. In fact, while I was seeking to combine culpability notions and the neuroscientific assumptions about moral decision-making, that is, while I was building up my descriptive argument on how criminal law might “look like” were neuroscientific insights incorporated in its formulations, I realized that this thesis could also aim to a further, second goal. That is, a purely legal, normative goal. More specifically, I could use said re-interpretations of legal notions with neuroscientific assumptions to re-write the general meaning of culpability, hence provide an alternative theory of culpability based on a rethinking of the mental foundations of rational moral thought, as seen through the lens of neuroscience.

The actual focus of this research turned out to be a general theory of culpability based on the incorporation of emotional factors in its relevant set. By also implementing this second goal, I figured out that this research would not only contribute to the neurolegal

field by offering a legal theory informed by neuroscience. Rather, this research would also contribute to criminal law scholarship by providing an alternative, emotion-oriented conception of culpability.

The combination of these two goals illuminated my mind also in another respect. I realized that a truly profitable research in neurolaw cannot be limited to a “passive”, or “a-critical”, transposition of neuroscience to the legal domain. Nor it can be reduced to inferring legal conclusions by simply looking at neuroscientific knowledge. A neurolegal research that may be fruitfully used in the legal domain must always offer legal arguments on why the combination of the two disciplines might provide the law with added value, especially at the theoretical level. The law is and remains concerned with reasons, not with causes. Therefore, the incorporation of neuroscientific insights into the law does not provide any significant added value if it is not also coupled with a solid normative argument showing the reason why this incorporation is legally desirable.

To those who maintain that neuroscience is useless in the legal domain, my reply is: this is not true! Neuroscience can make a difference in the law, *provided that* legal scholars make a reasonable and legally valid use of the information it provides. Of course, neuroscience does not have a normative value per se. Any normative implication deriving from the use of neuroscience is not intrinsic in neuroscience. This is obvious. Arguing otherwise is misleading, and profoundly mistaken. Although I call myself a “neuroenthusiast”, I am aware that there are limits between law and neuroscience that cannot be crossed.

But there is a means by which neuroscience can aid the law, that is, by providing useful information about human thought and behavior that a legal scholar might want to carefully use as the basis to develop normative arguments. In other words, legal scholars should critically “exploit” neuroscientific knowledge, that is, they should interpret it, translate it, and adapt it to the legal domain in a way that is able to satisfy normative needs. The law has to embrace neuroscientific discoveries, not slavishly but thoughtfully. Only a thoughtful, and critical, use of neuroscience in the law might make justice rationales more likely to be met.

Admittedly, I have got to this conclusion over the course of the four years of my research, during sleepless nights reading neuroscientific literature, during days spent

exploring the origins of legal concepts, or during weekends spent reasoning on how a legal doctrine could be reinterpreted. I have got to this conclusion when I was attending conferences, seminars, courses on neurolaw, and when I confronted my ideas with other researchers and professors, each of whom was critical to shaping my views, and inspiring my ideas. Also, acknowledging that the dialogue between criminal law and neuroscience is far more complex than I thought in the beginning of my research proved extremely inspiring. It further illuminated my mind with new ideas on many other potential ways to combine these two disciplines. Many other potential bridges between criminal law and neuroscience can be built, and it is my great hope that I will be able to build them in my academic future.

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