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A new legal treatment for psychopaths? Perplexities for legal thinkers

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ABSTRACT

Public perception, fueled not only by popular and news media but also by expert claims that psychopaths are archetypes of evil: incorrigible, remorseless, cold-blooded criminals, whose crimes manifest in the most extreme levels of violence. But is there empirical evidence that psychopaths truly are what they are portrayed to be? If so, should the law respond, and adjust its treatment of psychopaths in court — permitting psychopathy to be admitted under an insanity defense and/or resulting in mitigation? In this paper, we demonstrate that fundamental questions from the law to science remain unanswered and must be addressed before any alternative treatment of psychopathy can be considered. As it stands, psychopaths cannot be reliably defined or diagnosed and, as we will demonstrate, even the presumed link with criminal dangerousness is problematic. We conclude that the current legal approach should not be modified, however, if preliminary findings regarding impairments in impulsivity/self-control are confirmed, some, but not all individuals who fall under one definition of psychopathy may merit different treatment in future.

Contents

1. Introduction

The public has increasingly been given the message that 'psychopaths are threatening, expensive and untreatable'. For example, in 2006, Babiak and Hare wrote (p. 17–18): "We now know that both male and female psychopaths commit a greater number and variety of crimes than do other criminals. Their crimes tend to be more violent… and their general behavior more controlling, aggressive, threatening, and abusive. Further, their aggression and violence tend to be predatory in nature - cold-blooded… *instrumental*… and seldom followed by anything even approaching normal concern for the pain and suffering inflicted on others… Psychopathic criminals *recidivate* at a much higher

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rate, do so much earlier…and make up 15 percent of the prison population. They are responsible for at least half of the persistent serious and violent crimes committed in North America. Yet… not all psychopaths turn to a life of crime, and not all criminals are psychopaths. Psychopaths can be just 'snakes in suits'."

These alarming claims, presented to the public by key experts in the field as facts, are representative of the unsettling picture of psychopathy currently developing in society. Fueled by increasing negative media attention, these messages, along with mounting evidence for supposed neurobiological markers of psychopathy, may influence, or may have already begun to influence, decisions made by policy makers and courts. The question is: Is the concept of psychopathy clear enough and is there currently sufficient empirical evidence to support these assumptions and to justify this influence?

In contrast to its treatment of individuals with diagnosable mental health problems, based on official classification systems, criminal law does not currently excuse or mitigate 'psychopaths'. To date, the traditional view that psychopathy is not a mental disorder but a 'way of being', a specific type of personality, persists in the majority of courts. Thus, in the eyes of the law, psychopaths are 'bad' not 'mad'. Psychopathy is treated either as irrelevant, or as an aggravating factor due to the very high level of criminal dangerousness traditionally associated with it (see e.g., Rice & Harris, 2013).

In recent years, voices questioning the current legal treatment of psychopathy have appeared in the literature (e.g., Gillett & Huang, 2013; Godman & Jefferson, 2014; Nadelhoffer & Sinnott-Armstrong, 2012). They criticize the current legal system on the grounds that advances in behavioral neuroscience and genetics have not been incorporated; they advocate a different approach to criminal responsibility for psychopaths based on biosocial impairments. This would most likely result in more severe legal treatment through 'selective incapacitation' and potential lifelong commitment (Morse, 2008b) commensurate with their greater dangerousness (Coid & Maden, 2003; Luna, 2013), their difficulty engaging in and responding to traditional psychotherapeutic or psychopharmacological approaches, and the subsequent lack of successful treatment outcomes (Polaschek, 2014; Salekin, Worley, & Grimes, 2010).

Psychopathy is a challenge for our socio-liberal, free-will and culpability-based Criminal Law systems, because it represents archetypes of 'evil', of incorrigible criminals, for whom a retributive culpability-based punishment is not enough and a consequentialist 'dangerousness-based' legal response would be required. Whether under the name of 'psychopathy' or another name, this is an old and well-known problem for Criminal Law (at least since Lombroso, 1896; Ferri, 1881(1929); Garófalo, 1885(2005); or von Liszt, 1883). However, the scientific context is new, and forces us to look at what the Law can learn from it. If neuroscience and genetics have new information to offer, the Law should not be indifferent, but open to considering pertinent developments and adapting where necessary. In this paper we address this issue and, in so doing, we also hope to contribute to elucidating any discrepancies between the current 'status quo' (in terms of advances in research) and the information distributed to the public.

As we will demonstrate, key questions from the law to science regarding psychopathy remain unanswered, arising in particular from fundamental disagreements and contradictions in the basic definition of the concept itself, which map onto two different profiles. In fact, depending on whom one asks, psychopathy is (or is not) synonymous with sociopathy and antisocial personality disorder (ASPD; Walsh & Bolen, 2012). Moreover, parallel gaps and contradictions can be found in the literature examining the biological markers of psychopathy. For legal thinkers, this scenario leads to a genuine perplexity, where even the dangerousness component of psychopathy needs to be clarified, particularly because of the recognition of 'successful psychopaths' (who do not tend to be criminally dangerous) as a category.

We will conclude, that the current legal treatment, at least for 'primary psychopaths', should not be modified; the accepted presence of 'successful' psychopaths rules out any relevant mental alteration and precludes a direct correlation with criminal behavior. We will also conclude that 'secondary psychopaths' might receive, in individual cases, different legal treatment in the future, if the preliminary findings pointing to impairments in self-control/impulsivity are confirmed.

Finally, it is important to highlight that this is a legal paper. Its aim is to review the key scientific findings available to date, as well as identify the outstanding questions from law to science to consider its findings and to potentially inform normative solutions. It is not the goal of this paper to provide an exhaustive review of the literature, make any new proposals or theorize about the psychological concept of psychopathy nor the proposed biological markers attributed to it by the literature. Our purpose is, then, to assess whether the current legal treatment of psychopathy is adequate or not; whether it takes into consideration the findings of the contemporary scientific literature; and whether any changes are warranted.

2. The concept of psychopathy

Before we discuss the legal requirements or criteria that 'psychopathy' would have to meet in order to be considered in sentencing, it is necessary to establish what the concept of psychopathy actually is. The definition of psychopathy poses the first important difficulty. Psychopathy is far from being a clear and generally shared concept, and there is a lack of consensus regarding its distinctive features, or the underlying psychological or neurobiological profiles. However, a clear definition is essential for the Law, in order to properly apply the legal requirements with respect to psychopathy or any other psychological disorder or condition.

The most commonly used definition of a psychopath has been: a self-centered, callous, remorseless individual, lacking empathy and the ability to form close relationships; and a person who acts without the restrictions of a conscience, linked to a limited capacity to experience emotions, such as fear and anxiety. Their only goal is the satisfaction of their own needs, often through engagement in criminal behavior (Hare, 1991). Psychopaths are also described as having intact cognitive capacity, being able to distinguish between right and wrong, but lacking emotional empathy and having diminished inhibitory control (Blair, 2005).

There is general consensus that the key personality traits of psychopaths are lack of emotional empathy and lack of a sense of responsibility, often referred to as Callous and Unemotional traits (CU). There is also some agreement that antisocial behavior (not necessarily criminal) is, at least, a behavioral outcome or recurrent manifestation of psychopathy (see Skeem, Polaschek, Patrick & Lilienfeld, 2011, for a review). These traits also manifest through severe deficits in the ability to recognize and experience social emotions; that is, positive or negative emotions felt in relation to others, including shame, embarrassment, guilt, empathy, and love, in addition to fear and sadness (e.g. Dawel, O'Kearney, McKone, & Palermo, 2012). Experience of emotions seems to focus and modify brain activity, leading us to choose cooperative, long-term reward responses over cheating/manipulation and immediate rewards. It is this aspect which makes them crucial for regulating and maintaining the balance between self-interest and group interest (see Walsh & Bolen, 2012:156). As we will discuss later, this perspective of psychopathy is relevant for a consequentialist criminal law, because social emotions, and the ability to experience them, are essential in preventive strategies incorporated into the criminal justice system. These rely primarily on the internalization of moral norms, through socialization and motivation, as well as deterrence through the use of punishment, as a threat to deter people from engaging in criminal activity (von Hirsch, Bottoms, Burney, & Wikström, 1999, for all). According to Lykken (2000) and others (e.g., Mealey, 1995), lack of socialization in 'primary psychopaths' would arise from their inherent impairments, whereas in 'secondary psychopaths' (for Lykken — 'sociopaths'), from a maladaptive early socialization environment, inconsistent parenting and family violence in particular.

However, there are several key points, which illustrate that fundamental disagreements and contradictions need to be considered (see Skeem et al., 2011 for a general review). Two quite contradictory profiles for psychopathy have been described and further conceptual perplexity arises from the variety of terms employed to describe these profiles.

2.1. Cold-blooded-unemotional vs. anxious-emotionally reactive individuals

With the exception of historic records, which are now believed to have been referring to similar concepts (Pinel, 1806 "*manie sans delire*", for example; or Lombroso, 1896, "*delinquente nato*"… see Sass & Felhaus, 2014), the first conceptualization of psychopathy was formulated by Hervey Cleckley, in his seminal work "The mask of sanity", originally published in 1941 (5th ed. 1976). Here, Cleckley described psychopaths as outwardly normally functioning individuals of average to high intelligence, who fail to learn from their personal experiences or to plan ahead. He further described them as individuals who do not seem to experience anxiety, delusions or neuroses, they lack any significant concern about themselves or the impact of their behavior on others, and show little, or superficial consideration for the feelings of others, being consummate liars and having superficial charm. Note that antisocial behavior, including criminal behavior, now commonly associated with psychopathy, is absent from Cleckley's description and only originates much later from the conceptualizations of McCord and McCord (1964) and Robins (1966). The fact that these studies were based on offender samples may be a potential source of the discrepancy where anti-social and criminal behaviors are concerned. The psychopathic individuals observed by these authors had some emotional deficits in common with Cleckley's patients. However, they were also described as hostile, callous, impulsive and aggressive, and exhibited chronic antisocial behavior. Capturing these characteristics under a single clinical diagnosis led to the inclusion of ASPD in the DSM-III (American Psychiatric Association, 2013; Skeem et al., 2011).

Since Cleckley's introduction of the term, several definitions, conceptualizations and categorizations of psychopathy have been proposed. Perhaps the most widely known to date is Robert Hare's (1991, 2003) work. Through his Psychopathy Checklist (PCL; Hare, 1980) and Psychopathy Checklist Revised (PCL-R; Hare, 1991, 2003), Hare initially conceptualized psychopathy using a two factor model; his two factors continue to be used to refer to the key aspects of psychopathy and to delineate different types of psychopaths (described below).

> Factor 1 — *The Interpersonal/Affective* domain includes callous and unemotional traits such as: glibness/superficial charm; grandiose sense of self-worth; cunningness/manipulativeness; lack of remorse or guilt; emotional shallowness; lack of empathy; and failure to accept responsibility for actions.
>
> Factor 2 — *The Antisocial* domain consists mostly of behavioral traits associated with an antisocial lifestyle: a need for stimulation/proneness to boredom; parasitic lifestyle; poor behavioral control; promiscuous sexual behavior; lack of realistic long-term goals; impulsiveness; irresponsibility; juvenile delinquency; early behavioral problems; and revocation of conditional release.

Based on this initial characterization, taking into account the key traits of Factor 2, psychopathy would be a clinical condition defined by a combination of persistent antisocial behavior, marked sensation-seeking, impulsivity and punishment insensitivity that emerges early in life (Hare, 2003; Yang et al., 2015). Thus, PCL-R derived psychopathy, perhaps because it was developed based on criminal samples, is more consistent with the definitions put forward by McCord and McCord (1964) (as mentioned in Skeem et al., 2011:101), than with Cleckley's original conceptualization.

Conversely, others (for example Cooke, Michie, Hart, & Clark, 2004) have posited that it is the underlying personality features which characterize Factor 1 (such as interpersonal grandiosity and deficiencies in affective experiences and empathy) which are key to the conceptualization of psychopathy and that behavioral problems, consistent with Factor 2, are better understood as consequences of these traits. Given failed attempts to replicate the original two-factor model, Cooke and Michie (2001) proposed a three-factor model of PCL-R psychopathy and subsequently, aiming to better capture a psychopathic personality, Hare (2016) introduced a four-factor model. In the three factor model, the original Factor 1 is sub-divided into Factor 1 (affective deficits) and Factor 2 (interpersonal deficits), and behavioral deficits are included in Factor 3. Notably, in the three-factor model the five items measuring criminal behavior were discarded. In the four-factor model, those five items were retained and included in Factor 4 (criminal behavior). The currently favored four-factor model has been widely utilized and validated (e.g., Weaver, Meyer, Van Nort, & Tristan, 2006; Zwets, Hornsveld, Neumann, Muris, & van Marle, 2015). Person centered analyses based on the four-factor model have also been carried out (e.g., Neumann, Vitacco, & Mokros, 2016) and yielded four different offender profiles described as: 1. a *psychopath* group — scoring high on all four PCL-R factors; 2. a *callous-conning* group — scoring high mainly on the Interpersonal and Affective factors; 3. a *sociopathic offender* group — scoring high mainly on the Lifestyle and Antisocial Factor; and 4. a *general offender* group — scoring low on all factors.

Moving away from the PCL-R as a key diagnostic and definitional tool, Lynam and Widiger (2007) have proposed a conceptualization of psychopathy within the framework of the five factor model of personality functioning (FFM; Costa & McCrae, 1990). The FFM includes the following five dimensional personality characteristics: neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Based on their analyses of the characteristics underlying these five dimensions, Lynam and Widiger (2007) proposed 12 characteristics as representing the core features of psychopathy. According to these authors, a 'prototypical' psychopath would score low on five facets of agreeableness (straightforwardness, altruism, compliance, modesty, and tender mindedness), three facets of conscientiousness (dutifulness, deliberation, and self-discipline), one facet of neuroticism (self-consciousness) and one of extraversion (warmth). In addition, such a person would score high on impulsiveness (from the neuroticism factor) and excitement seeking. Based on these characteristics, a team of researchers also developed a five-factor model rating form (Mullins-Sweatt, Jamerson, Samuel, Olson, & Widiger, 2006), which has been used in research on psychopathy (e.g., Beaver, Hartman, & Belsky, 2014; Miller & Lynam, 2015) and subsequently the dimensional conceptualization of psychopathy, including the psychopathic personality inventory has been used to develop further scales (PPI; Lilienfeld & Fowler, 2006). The Triarchic Model of psychopathy (Patrick, Fowles, & Krueger, 2009) defines psychopaths based on possessing varying degrees of three distinct observable (phenotypic) characteristics: boldness (or fearless dominance), meanness, and disinhibition (Skeem et al., 2011).

The above conceptualizations/definitions of psychopathy all paint slightly different pictures of who a psychopath is or is not. Indeed, if there was consistency multiple definitions would not be necessary. While there is some overlap, there are also many differences and several contradictions. For instance, while the PCL-R focuses on the antisocial personality, exhibited primarily through antisocial behavior, the conceptualization based on the FFM model does not include engagement in this behavior. There also seem to be different types of psychopaths (see also, Koenigs, Kruepke, Zeier, & Newman, 2012 and below). These differences are of key importance to the law, for two main reasons: first, if they are to be considered as definitional features of psychopathy, including antisocial behavior, it should be possible to connect the type of offense and behavioral expression (instrumental or impulsive aggression, for instance) with the specific type of disorder, as this is a

requirement for the insanity defense or for mitigation (as we will explain below); and second, it would also be consistent with the common association between psychopathy and criminal dangerousness.

In addition, based on this conceptualization, it seems clear that individuals scoring high on the items assessing the antisocial component (Factor 2) are significantly more diverse than those who score high on the interpersonal/affective domain (Factor 1). For this reason, some researchers have questioned whether Factor 2 (primarily violent) individuals are truly psychopaths or not. For example, Skeem et al. (2011), queried whether "anxious and emotionally reactive people, that are identified as psychopaths by the PCL-R" are truly psychopaths (p. 104). We believe this to be a pertinent question, given the radical differences between the underlying temperamental profiles of Factors 1 and 2, and between Cleckley's and McCord and McCord's respective conceptualizations of psychopathy. Skeem et al. (2011) point out that the interpersonal–affective factor (Factor 1: subdivided into interpersonal and affective facets) linked to 'primary' psychopathy (see below for more about this distinction), is associated with fearlessness, narcissism, low emotional empathy, and social dominance and is inversely associated with negative emotionality. In contrast, the antisocial factor, linked to 'secondary' psychopathy (Factor 2: also divisible into impulsive–irresponsible lifestyle and antisocial behavior facets) is associated with negative emotionality, impulsivity, frustration, general sensation seeking, substance abuse and reactive aggression (Skeem et al., 2011; p. 119). Importantly, impulsivity and reactive aggression (see Blair, 2010b), associated with Factor 2, seem to be the core features of secondary psychopathy. 'Primary' psychopaths, however, are presented as "emotionally stable" (see Skeem et al., 2011; p. 119; Snowden & Gray, 2011). In addition, when looking at the PCL-R, Factors 1 and 2 are only moderately positively correlated and, importantly, they show correlations in opposite directions with external variables, such as anxiety. Moreover, only Factor 2, consistent with 'secondary' psychopathy, would predict future delinquent and antisocial behavior (see Skeem et al., 2011; Yang, Wong & Coid, 2010) which is consistent with risk-based explanations of aggression and crime (Farrington, 1985), suggesting that it is past behavior and not psychopathic features (Factor 1 and consistent CU traits) that best predict future engagement in similar behavior. Again, these contradictory profiles underlying the same categorical definition are highly relevant for the Law. As we will explain later, only deficits in self-control are currently relevant, and only in some legal systems, for insanity defense or mitigation. Yet based on the literature available thus far, not all psychopaths show volitional impairments.

Recently, even more approaches to defining psychopathy have emerged, however, these do not seem to solve the existing problems but open up new discussion. For example, currently, there is overall consensus in the literature that psychopathy should be considered as a dimensional, rather than a categorical construct (e.g., Guay, Ruscio, Knight, & Hare, 2007; Hare & Neumann, 2005, Hare & Neumann, 2008; Lynam & Derefinko, 2006; Patrick et al., 2009). Psychopathy is understood as a question of degree and not, at least completely, as categorical/taxonomical. In other words, what matters is the degree of psychopathic characteristics that an individual exhibits, rather than whether they are indeed 'a psychopath' or not, or whether they could in fact be classified as something else. Ironically, while the dimensional view of psychopathy has been gaining in popularity, experts in the field (e.g., Hare, 2016) have highlighted the existence of a category of severe or "hardcore" (Guay et al., 2007; p. 1589) psychopaths at the top end of the continuum. Focusing on this sub-group may enable the reconsideration of the prevalence of 'psychopathy' in society and its real impact.

A dimensional view perhaps increases the likelihood of those with characteristics of psychopathy which are not unique and are therefore shared with other disorders (such as autism, ADHD, ODD or ASPD) meeting criteria for psychopathy. This is not only conceptually confusing and clinically counter-productive, it also leaves use of mitigation or insanity defense based specifically upon psychopathy impossible — as those who qualify as psychopaths under this definition may in fact not be. However, the dimensional approach could have advantages in the context of the legal system as it could be used to base legal criteria upon discrete types of impairment (which may be common to multiple disorders) rather than on specific disorders. As such, it could be more likely to open the door for an insanity defense or to mitigation for unspecified disorders than a categorical interpretation would be. It also allows for the identification of pathological personalities with impairments relevant to criminal liability. A dimensional view of psychopathy has also led to the search for multiple causal factors that contribute to the development of psychopathic features, instead of a focus on finding the one underlying cause (Murrie et al., 2007). In our opinion, however, in spite of the posited advantages of the dimensional perspective, the key question of whether there are actually two distinct versions of psychopathy remains (see Walters, 2015).

2.2. Primary vs. secondary psychopathy

The distinction between primary (born/fearless-cold-blooded) and secondary (made/anxious–impulsive) psychopaths is another well-known distinction made in the psychopathy literature. The two types of psychopaths have shown correlations with the two main domains of the PCL, as discussed above, and as such provide further support for the general acceptance of two profiles of psychopaths in the wider psychopathy literature. Since the early 1940s, psychopaths have been theorized to be a heterogeneous group of individuals, who do not all share common etiological and phenotypic features (Cleckley, 1941; Karpman, 1941). Karpman (1941) first proposed the distinction between 'primary' and 'secondary' psychopaths. He described 'primary' psychopaths, also referred to as 'idiopathic' psychopaths, as individuals for whom certain traits, such as callousness, interpersonal unemotionality, and lack of remorse, were innate or inborn. 'Secondary' psychopaths were conceptualized as a separate group of individuals, who, according to Karpman and many others following him (e.g. Blonigen, Hicks, Krueger, Patrick, & Iacono, 2005; Flexon, 2015a; Skeem, Johansson, Andershed, Kerr, & Louden, 2007), are not born with these characteristics, but acquire them in response to adverse childhood experiences such as maltreatment.

Since Karpman's first formulation of these two variants of psychopaths, researchers have endeavored to empirically distinguish between and describe the two groups. In terms of delineating them, researchers (e.g. Blais, Solodukhin, & Forth, 2014; Vaughn, DeLisi, Beaver & Wright, 2009; Skeem et al., 2007) found that compared to 'primary' psychopaths, who are characterized by a lack of anxiety, 'secondary' psychopaths exhibit greater anxiety. This contrast has been used as an identifying marker in research to distinguish between the two groups (Flexon, 2015b) and further distinctions between the two types have been observed. 'Secondary' psychopaths exhibit poor interpersonal functioning (including irritability, hostility, impulsivity and social withdrawal) compared to 'primary' psychopaths; more symptoms of major mental disorders (including depression); higher juvenile delinquency and drug abuse, and greater exposure to traumatic experiences (Patrick, 2010; Vaughn, DeLisi, et al., 2009; Skeem et al., 2007). In addition, each may be characterized by different neurobiological abnormalities (Raine, 2013 and see below).

With respect to antisocial behavior overall, while there is some inconsistency in research findings, evidence thus far suggests that, compared to 'primary' psychopaths, 'secondary' psychopaths engage in at least comparable levels (e.g., Skeem et al., 2007) but more often in higher rates of antisocial behaviors (e.g., Camp, Skeem, Barchard, Lilienfeld, & Poythress, 2013; Vaughn, DeLisi, et al., 2009; Vaughn, Edens, Howard and Smith, 2009; Lykken, 2000). One recent study (Flexon, 2015a, 2015b) examined the relation of each type of psychopathy with violence in a non-institutionalized sample of 15-year-olds, revealing significant links in young people who met criteria for 'secondary' psychopathy, but not in those who met criteria for 'primary' psychopathy. While further research is needed to explain the link

between 'secondary' psychopathy and antisocial behavior, a viable hypothesis points to an underlying link between co-occurring traits, such as impulsivity and hostility, and antisocial behavior in 'secondary' psychopaths.

Nonetheless, the distinction between primary and secondary psychopaths (as two distinct populations) is not generally accepted and, furthermore, it is not recognized in the DSM-5 or the ICD-10. This poses an immediate problem for those advocating changes to the legal treatment of psychopaths. The evidence available thus far (e.g., Hicks, Markon, Patrick, Krueger, & Newman, 2004; Fowles & Dindo, 2009; Patrick, 2007; Patrick & Bernat, 2010) suggests that the two factors of the PCL-R reasonably match the notion of primary and secondary psychopathy (Hicks et al., 2004) (or the distinction between psychopaths and sociopaths depending upon the terminology used) and that such a distinction should definitely be implemented, rather than perpetuating the traditional view that both populations belong to one overarching group and fall into the category of 'psychopaths'.

More recently, a further differentiation among psychopaths has been suggested by applying a person centered statistical approach, utilizing the PCL-R scores of offenders with extreme scores. From this, researchers (e.g., Mokros et al., 2015) have isolated three different subtypes of psychopaths: 1. manipulative psychopaths, 2. aggressive psychopaths, and 3. sociopathic offenders. In a recent review, Hare (2016) indicated that while the characteristics of the sociopathic offender group are consistent with those of 'secondary psychopaths', ASPD, or severe externalizing behavior problems; manipulative psychopaths and aggressive psychopaths represent two sub-groups of 'primary psychopaths'. Similarly, to further clarify (or complicate the matter), through identifying inconsistencies in research exploring 'primary' vs. 'secondary' psychopaths, Yildirim and Derksen (2015) proposed further sub-categories for each (three types of primary psychopaths and two types of secondary psychopaths).

In our opinion, given that secondary psychopaths are described as having impairments affecting impulsivity (and may also show neurobiological differences as we will see below), such differentiation might allow a reconsideration of psychopathy by the law. But before that can take place, a consensus in the specialized literature is essential.

2.3. Successful vs. unsuccessful psychopaths

Finally, the notion of psychopathy is further obscured by yet another ill-defined distinction, which particularly complicates the assessment of the current legal treatment of this 'disorder'. There is an emerging interest in examining 'successful' psychopaths in comparison with 'unsuccessful' psychopaths. Successful psychopaths have been described as individuals possessing Factor 1 PCL-R traits, including willingness to take calculated risk, superficial charm, and fearlessness. They are able to use these skills successfully in a range of professional careers without engaging in overt criminal activity or, if doing so, successfully avoiding being caught (Mullins-Sweatt, Glover, Derefinko, Miller, & Widiger, 2010; Smith, Watts, & Lilienfeld, 2014). Hare referred to them as "snakes in suits", who succeed as politicians, business men, professors, physicians and the like (Babiak & Hare, 2006).

In recognizing such definitions, the first question for a lawyer is whether little or no criminal record, or the ability to avoid detection, can be a criterion for a meaningful definition. Furthermore, as Glenn and Raine (2014, p.149) pointed out, the diversity in which successful psychopaths have been defined and operationalized across different studies compromises the comparability of the findings. They identified the following four definitions of successful psychopaths in the literature: 1. Individuals scoring high on psychopathy, who have never been convicted of a crime; 2. individuals scoring high on psychopathy, who are not incarcerated; 3. individuals with psychopathic traits and high social status; and 4. serial killers who have escaped detection for a significant period.

From a criminal law perspective, such definitions and criteria derived from them, are simply baffling. In fact, in our view, the category of 'successful' psychopaths can be considered a 'trojan horse' for psychopathy, as it problematizes current understandings of the construct. Taking these definitions into consideration enables us to derive the following possibilities:

a) that 'successful' psychopaths generally engage in criminal behavior in the same way that 'unsuccessful' psychopaths do, but they exhibit a higher level of executive functioning and intelligence enabling them to avoid detection. As we will see in the next section, this would be consistent with evolutionary explanations of psychopathy and with findings which preclude any neural impairments, rather than the opposite, seen in successful psychopaths. But this also challenges the notion of any neurobiological marker of 'psychopathy'. From a legal perspective, as we will see below, psychopathy by itself would be, ab initio, excluded from consideration for any approach to the mental insanity defense or mitigation based on diminished responsibility.
b) consistent with scoring high on Factor 1, there is an increased likelihood that 'successful' psychopaths would be bold, emotionally stable individuals and that such traits may confer advantage, rendering these individuals more competitive in contemporary society, which is in many ways also 'psychopathic'. Those individuals would not normally engage in criminal behavior, but they would be able to successfully profit from social rules bent to their own self-interests. If so, CU-traits (the essence of psychopathy) would not consistently (or reliably) predict criminal behavior, or criminal dangerousness (Skeem & Cooke, 2010; Skeem et al., 2011). This would also be consistent with the initial conceptualizations of psychopathy, and with the literature suggesting that emotional and interpersonal traits of psychopathy, by themselves, are not predictive of crime. Moreover, in the absence of engagement in criminal activity and by utilizing their unique characteristics for the benefit of society, 'successful psychopaths' are socially acceptable and perhaps even celebrated as heroes. Factor 1 psychopathic traits (e.g., emotional coldness and the ability to quickly make difficult decisions) could be viewed as important leadership skills and have been observed in, for example, the celebrated author Ian Fleming as well as his popular spy character James Bond (Dutton, 2012).

This option, however, starkly contradicts the messages shaping public opinion of psychopathy, which is linked to criminal dangerousness, and to claims that the highest recidivism rates are associated with psychopaths as well as the consensus in the majority of the scientific literature, which seems to perpetuate the link between psychopathy and criminal behavior over the less 'dramatic' link between psychopathy and general antisocial behavior. Beaver, Boutwell, Barnes, Vaughn, and DeLisi (2012), for example, measured psychopathic traits and criminal system contact within a national sample of males and females, and they concluded that there was a strong association between psychopathy and criminal outcomes, with no relevant influence from sex, age or ethnicity. This study is in the minority, as most research has been conducted with criminal samples, which contributes to the perpetuation of the above association. Moreover, the literature has been recently focusing on the link between psychopathy and career criminals, and life-course-persistent (LCP) offenders (see e.g., Corrado, DeLisi, Hart, & McCuish, 2015; Fox, Jennings, & Farrington, 2015).

In our opinion, the emerging distinction between successful and unsuccessful psychopaths seriously obscures the debate about the legal responsibility of psychopaths. It renders an adequate clarification of the concept of psychopathy and a net distinction of the two underlying profiles, even more urgent.

3. Mental insanity defense and reduced culpability at sentencing — differences and commonalities between common law and civil law

Our next step is to analyze whether the designation of the defendant as a 'psychopath' may be considered under any of the defenses

described in article 20 of the Spanish Penal Code (SPC), used as an example of Civil Law (the European Continental System), and its correspondent insanity defense under the Common Law system (CLS; considering the US and England legal situation). In addition, we will explore its potential relevance in considering mitigating circumstances set forth in article 21 of the SPC and corresponding legislature in the CLS. We will conclude that given the advances in the scientific literature thus far, psychopathy does not meet the legal standards for exoneration or for mitigation; nor does it warrant a revision of the law. Putting aside the substantive or procedural differences between normative systems or national requirements, the Spanish regulations can be taken as an illustrative example of the dimensional nature of criminal accountability and the requirements to reliably document in court the extent of impairments in the cognitive or volitional capacity of the defendant, in order to establish the appropriate legal response. Taking the Spanish regulations as a reference, we will discuss the legal options for 'psychopathy' and, given the similarities across legal systems, we contend that our conclusions will be widely applicable. In fact, criminal responsibility is grounded in folk psychology (Morse, 2008a), which explains the absence of key conceptual contradictions and the common substance of legal systems, at least, in countries within our cultural orbit. In fact, the Spanish regulations are representative of other continental European legal systems, as it is essentially equivalent to paragraph §20 of the German Criminal Code (Strafgesetzbuch-StGB), §11 of the Austrian Penal Code (StGB-Österreich), and the provisions in the French Penal Code, Art 122-1, among others. As we will show below, national regulations under Common Law generally have a narrower definition of the insanity defense, but we all have a common notion of criminal accountability. Beyond the differences in the extent of applicability of the defense in each system or country, we share a common grounding, a common language, and also similar options in theory, as full or partial insanity defense, diminished responsibility or mitigation. Therefore, we can discuss the legal treatment for psychopathy with shared arguments and offer broadly-applicable solutions and conclusions.

Under the SPC, Article 20, §1 addresses the issue of the insanity defense, and indirectly also defines the capacity for criminal responsibility, as follows: "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 act in line with that comprehension. A temporary mental disorder shall not result in exoneration from the punishment when provoked by the subject in order to commit the offence, or when he would or should have foreseen that it would be committed".

According to these legal prescriptions, in order to be held criminally responsible for a proscribed act, the defendant must have had two core capabilities, occurring simultaneously and completely at the time of the offense. First, the cognitive ability or capacity to appreciate ("comprehend") that the act is against the law ("unlawful nature"), and thus, legally wrong. This cognitive capacity implies both: the ability to understand the act, according to general experience, as a prerequisite; and that the act is against the law. At the same time, the defendant must also have an average capacity to conform his behavior to the requirements of the law (volitional, control or self-determination). The capacity for criminal responsibility, therefore, is defined in terms of the *defendant's ability to be motivated by criminal law*, which is the primary tool of deterrence from the commission of crimes (general prevention) in consequentialist systems.

Under Common Law, the insanity defense, per se, is not recognized universally. For instance, it is not admitted in three states of the U.S.A. (Arizona, Utah and Montana) and in the states where it is accepted, the requirements generally differ from those mentioned above, resulting in a much narrower defense, as we will discuss below. An insanity defense may also be based on a lack of rational capacity at the time of the alleged act; however, it is generally admitted only for cognitive impairments. The US Federal Insanity Defense Reform of 1984 codified, in Title 18 U.S. Code (USC) §17(a), the insanity defense as follows: "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 of the wrongfulness of his acts. Mental disease or defect does not otherwise constitute a defense." Thus, it is necessary to prove, that the defendant at the time of committing the crime, suffered a defect of the mind, which prevented him to be aware of the nature and quality of his actions (to know what he was doing, without delusion) or that he lacked the ability to distinguish right from wrong. In the case of a successful insanity defense in the US, the individual is sent to a mental health institution for an indefinite commitment, sentenced to prison, or both, depending on the specific legislature of the governing jurisdiction (e.g. Farahany & Coleman, 2006).

Prior to the adoption of the Federal statutory standard of 1984, most US Federal courts were using the proposal of the Model Penal Code (MPC) by the American Law Institute in 1972. This text is highly compatible with the Spanish exoneration by reason of insanity; including the volitional test. It states that, "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 wrongfulness of his conduct or to conform his conduct to the requirement of the law". This text was abandoned by the majority of the States after the United States vs. Hinckley (1982) case, of the attempted assassination of President Ronald Reagan. The MPC, §4.01(2), also implicitly proscribed the use of the insanity defense for psychopaths and ASPD, when it stated: "As used in this article, the terms "mental disease or defect" do not include an abnormality manifested only by a repeated criminal or otherwise antisocial conduct" (see Robinson, Kussmaul, Stoddard, Rudyak, & Kuersten, 2015; King-Ries, 2015 or Neville, 2010, for a comparative in USA, *passim*).

In England, according to the M'Naghten Rules, in a plea for an insanity defense, in order to establish whether the defendant knew what he was doing at the time of committing the criminal act: "the jurors ought to be told in all cases that every man is to be presumed to be sane, and to possess a sufficient degree of reason to be responsible for his crimes, until the contrary be proved to their satisfaction; and that to establish a defense on the grounds of insanity, it must be clearly proven that, at the time of the committing of the act, the accused party 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 he was doing what was wrong" (Daniel M'Naghten's Case May 26, June 19 (1843) 4 St Tr NS 847). In England, a successful plea of insanity will lead, depending on the discretional decision of the judge, to hospitalization, supervision or an absolute discharge. For murder, a partial defense, in the form of 'diminished responsibility' is also possible, leading to a lesser charge of manslaughter. This is also the case in the U.S.A. Under The Coroners and Justice Act 2001, this circumstance is grounded on a substantial impairment of the defendant's mental capacity, such that it prevents him to understand the nature of his own conduct, to form a rational judgment or to exercise self-control (Ormerod, 2011).

In conclusion, the commonalities are: a) Criminal responsibility is attributed based on the decision of the individual to commit a crime (an unlawful act) when s/he was able to avoid such behavior and act according to the law. Consequently, criminal responsibility requires free will or, at least, a compatibilistic view of human agency, which suggests a deterministic or causal link between our will and our actions. b) A mental insanity defense excuses criminal conduct based on the lack of accountability or capacity for being held criminally responsible for a proscribed act. c) Implicitly or indirectly, it is required that the mental impairment has to be the 'reason' for or must be connected to the unlawful act, which implies that the crime has to be clearly related to the defendant's mental impairments. d) Diminished responsibility can also be considered in both systems by assessing culpability at sentencing. e) It is assessed whether the individual, at the time of the crime,

had an average (or better) mental capacity to make a decision about committing the criminal act or not. An average mental capacity implies a normative judgment about individuals' mental capacity compared to what would be expected in an average person.

The differences are: The Civil Law system (Spain) adopts a primarily preventive or consequentialist model. The insanity defense recognizes both cognitive deficits and lack of volition or self-control. Also, this defense is admissible based on a "mental anomaly or alteration", which can include brain abnormalities due to genetics or injury. The Common Law system (particularly in the US), however, adopts a primarily retributive model. The insanity defense is more limited, because it requires a proven mental disease or defect, making it more difficult to consider brain abnormalities due to genetics or injury. Also, in the majority of the states, the defense is built only on cognitive deficits; only a few states recognize volitional deficits as well. But the most important difference, for our current concerns, is the relation between culpability and morality in each system. In the Continental System, liability is clearly grounded on a formal or normative notion of illicitness or unlawfulness of the act, appealing to what is legally right or wrong, without direct reference to social morality. However, Common Law mostly keeps an ambiguous relation (or in fact confusion) between 'criminality' and social 'morality', by linking the comprehension of the 'wrongfulness' of the act to terms like 'wrong' or 'right'. We will come back to this point, because it is key for the legal treatment of psychopathy.

4. Accountability and psychopathy: key points of reference

4.1. The time of assessment of accountability

The assessment of accountability has to be with reference to the time of committing the crime, unless the defendant had compromised his capacity intentionally ('guilty mind') or through negligence. Regarding psychopathy, at first glance, this requirement does not appear problematic, given its developmental nature, its stability from childhood, particularly the presence of CU traits (e.g., Baron-Cohen, 2011; Frick, Cornell, Barry, Bodin, & Dane, 2003; Loney, Taylor, Butler, & Iacono, 2007; Lynam, Caspi, Moffitt, Loeber, & Stouthamer-Loeber, 2007) and the fact that it is described as a permanent state, which defines the personality and behavior of afflicted individuals.

Leaving aside the explanation of psychopathy as an adaptive life strategy (as opposed to a disorder), consistent with evolutionary theory (e.g., Book, Quinsey, & Langford, 2007; Crawford & Salmon, 2002; Glenn, Kurzban, & Raine, 2011), there seems to be some consensus that psychopathy, particularly primary or that which is associated with Factor 1 PCL-R, may have a predominantly genetic etiology, accounting on average for 40 to 60% of the variance (Viding, Blair, Moffitt, & Plomin, 2005). However, sociopathy, or Factor 2-related psychopathy, has been described as the final product of the interaction between environmental factors and certain genetic conditions; in other words: a G × E interaction (Poythress, Skeem, & Lilienfeld, 2006). However, the candidate genes underlying CU traits remain unknown (see Viding & McCrory, 2012), as do the environmental factors moderating genetic influences, such as parental socioeconomic background, parenting practices or trauma (see Cummings, 2015; Farrington, 1985; Tamatea, 2015, on emerging epigenetics; Sadeh et al., 2010, for all).

4.2. Biological requirement

The SPC requires that the lack of accountability or capacity for culpability is due to mental anomaly or impairment (alteration). This abnormal mental state would only require proof (by the defendant) of a pathological structure or activity of the brain, even with unknown causes. This is the so-called 'biological element' of the insanity defense. In contrast, other legal systems require a diagnosable mental illness, as in the U.S. Code or M'Naghten Rules referred above. It is necessary, then, to establish the implications and possibilities based on both systems to consider the admission of psychopathy under the insanity defense. This concept is much broader than the previous legal requirement for a diagnosable 'mental illness' or 'mental disorder', which is still in use in other systems.

4.2.1. Systems requiring diagnosable mental illness

By requiring "a severe mental disease or defect" [ex T.18 USC §17(a)] or "a defect of reason, from disease of the mind" (the M'Naghten rule), the law reduces the applicability of this circumstance to the presence of a diagnosable mental disorder. This raises two key problems: First, the potential difficulties for diagnosing this disorder arising from the ambiguous and dual notion of psychopathy; second, the lack of general recognition of such a condition in the most commonly used diagnostic manuals.

Regarding the first issue, *the PCL-R is, on one hand, highly controversial in the* literature and, on the other, the tool most commonly used in court, to diagnose psychopathy and also to identify and measure criminal dangerousness, not only in psychopaths but potentially others (Hare, 2016). The PCL-R, however, has been criticized both for its taxonomic structure and for overestimating psychopathy based on an overemphasis on behavioral antisocial traits. There is an argument that it is also tautological with regard to antisocial/criminal behavior (Beaver, Boutwell, Barnes, Vaughn, & DeLisi, 2015; Edens, Marcus, & Vaughn, 2011; Skeem & Cooke, 2010), which is seen as both a core characteristic and an outcome. This is particularly problematic not only for the concept itself (or the dual underlying profile), but also because it inflates the correlation between psychopathy and antisocial/criminal behavior, hence dangerousness. At the same time, again paradoxically, this tool was conceived as a diagnostic tool by Hare and yet it is most widely used in research as opposed to clinical practice, as it is inconsistent with the DSM-5, Section 2 definition of psychopathy and has not been studied in relation to Section 3.

The second, and more important problem, is that psychopathy is not directly recognized *as a disorder by either the DSM-5 or ICD-10*, the two most widely used internationally recognized diagnostic manuals. In the DSM-5, the diagnostic reference manual published by the American Psychiatric Association, antisocial personality disorder (ASPD) and conduct disorder (CD) are clearly recognized, whereas psychopathy (the definitional CU traits, at least) only appears as a variant of these disorders. Moreover, in the DSM-5, Section 2, which presents the traditional categorical classification of disorders, the definitions of psychopathy, sociopathy and ASPD lack clear differentiation. ASPD (in adulthood) or CD (in juveniles), in short, would be the common clinical diagnoses, but only some of these antisocial individuals would also have psychopathic traits, and show limited prosocial emotions. Specifically, to qualify for 'psychopathic traits', an individual with CD or ASPD must display at least two of the following traits persistently and across different contexts: "lack of remorse or guilt", "callous–lack of empathy", being "unconcerned about performance" and exhibiting "shallow or deficient affect". Based on the DSM-5, Section 2, this specifier would cover two personality types: 'callous–unemotional', and 'thrill seeking, fearless and insensitive to punishment'.

Section 3 of this manual is a new addition to the DSM that was introduced during the most recent revision in 2013. It offers a supplementary, dimensional model of personality pathology, operationalized and measured through the Personality Inventory (PID-5; Krueger et al., 2011) specifically developed for the DSM-5. Recent studies have supported the utility of the Section 3 psychopathy specifier to capture each of the key facets of psychopathy as specified in the Triarchic Model of psychopathy (e.g., Anderson, Sellbom, Wygant, Salekin, & Krueger, 2014; Strickland, Drislane, Lucy, Krueger, & Patrick, 2013). Thus, the DSM-5 represents a significant improvement on previous versions of the DSM, which focused on the behavioral rather than the affective and interpersonal, in other words 'core' traits of psychopathy. However, these psychopathy traits continue to be a mere specifier to ASPD or CD, both of which are disorders capturing primarily antisocial

behavior, thus, supporting the tautological view of psychopathy in which antisocial behaviors are not only a key component of the construct, but also the outcome of it. In its current format, the DSM-5 still does not enable 'successful psychopaths' to be identified in any way. Moreover, Section 3 of the DSM-5 has only been put forward as an emerging model for use in clinical research. It has not, to our knowledge, been utilized or developed to be utilized in courts. Similarly, its utility has not been evaluated in the context of the PCL-R, to date the most widely used assessment tool in courts, which causes perplexity for legal operators.

A similar classification system, the International Classification of Diseases: Classification of Mental and Behavioral Disorders 10, the Revisions (ICD-10), is published by the World Health Organization and utilized world-wide. Like the DSM, the ICD-10 does not distinguish a clear category for psychopathy. Instead, a parallel disorder to ASPD, dissocial personality disorder (DPD) is utilized to classify antisocial individuals, with a specifier which includes lack of empathy and relationship instability. A new updated version of the ICD, ICD-11 is due to be released in 2017. The beta-version available online suggests that it has adapted a dimensional approach to personality disorders with a differentiation of mild, moderate and severe on a range of characteristics. It is not clear, however, how psychopathy will be captured. Overall, both classification systems have been widely criticized for not being sufficiently evidence based (e.g., Tyrer, 2013).

It is paradoxical that, while the DSM-5 and ICD-10 only identify psychopathy at the level of 'traits'; researchers, the general public, the media and those who use the term in the legal system, view individuals either as psychopaths or not. But more importantly, as we explore here, the fact that psychopathy is not recognized as a diagnosable disorder makes it extremely difficult to include psychopathy under the biological requirement of the insanity defense in those systems which require a diagnosable mental illness (see Campbell, 1990 for all). At the same time, it sends an affirmative message to courts about the traditional 'way of being' view of psychopathy and about negating its consideration under any excuse or mitigation.

4.2.2. Systems requiring just a mental anomaly or alteration

The concept of abnormality or mental alteration has a wider meaning, as it firstly implies the acceptance of the 'brain' and 'mind' as an indivisible whole (Damasio, 1994). Also, its wording allows for any pathological brain deficit either structural or functional, in addition to any other mental impairment without a documented association with brain damage or dysfunction, as might be for example evident in the case of post-traumatic stress syndrome. What matters is whether the psychological functioning of the defendant was anomalous (pathological) or not at the time of the crime, compared to what is scientifically considered normal, or average in the general population. However, even for those legal systems, such as the SPC, which only require a mental anomaly or alteration for addressing the biological element of the insanity defense, the inclusion of psychopathy appears to be problematic. As we will show below, this is because the neurobiological markers of psychopathy are far from being clear or generally accepted in the literature. This circumstance, together with the problems related to the psychological construct itself (see above), makes it very difficult to document this condition in courts.

4.2.2.1. Neurobiological markers of psychopathy. Much of the literature points to structural impairments in the fronto-limbic system, with reduced volumes and activity in the amygdala and the orbitofrontal and ventromedial pre-frontal cortex (VmPFC) in individuals who score highly on traits of psychopathy (e.g., Contreras-Rodríguez et al., 2015; Gao, Glenn, Schug, Yang, & Raine, 2009; Raine & Yang, 2006a; Umbach, Berryessa, & Raine, 2015; Yang & Raine, 2009).

Hypoactivity in the amygdala has been linked to fearlessness, impairments in stimulus-reinforcement learning and in responses to emotional expressions, particularly fearful expressions, all thought to be core components of psychopathy (Blair, 2008; Ermer, Cope, Nyalakanti, Calhoun, & Kiehl, 2012; Glenn, Raine, & Schug, 2009; Lykken, 1957, 2006; Umbach et al., 2015). In addition, concurrent impairment in VmPFC, responsible for deficits in executive functioning (including learning, behavioral flexibility, working memory and sustained attention; Puig & Gulledge, 2011), indicates that psychopaths may also have impaired decision-making through "their inability to "tie" the brain's cognitive and emotional networks together" (Walsh & Bolen 2012, p.157; Patrick, 2006).

The combination of these impairments may explain the tendency of psychopaths, at least those scoring high on Factor 1, to be more likely to exhibit instrumental aggression than reactive aggression (more common, however, on PCL-R Factor 2 individuals). Instrumental aggression may be the result of a distorted representation of the costs of the behavior. The amygdala is critical for stimulus reinforcement learning and for feeding reinforcement expectancy information to the OFC, enabling effective decision-making to occur. When both of these critical processes are disrupted in an individual, she/he has difficulties with socialization (Blair, 2007, 2010a; Blair, Mitchell, & Blair, 2005 regarding the role of amygdala and VmPFC in moral judgment, see Shenhav & Greene, 2014). Blair (2010a) points out that instrumental aggression is, as goal-directed behavior, mediated by the motor cortex and caudate and implies that the individual chooses an antisocial behavior instead of a prosocial one.

Functionally, reduced connectivity between the amygdala and PFC has been also observed. Craig et al. (2009) found significant correlations between reduced UF (uncinate fasciculus) volume and PCL-R Factor 2 scores. The reduced connectivity is related to impulsivity and lack of socio-emotional integration and to antisocial behavior (Motzkin, Newman, Kiehl, & Koenigs, 2011). Raine (2013, p. 121) hypothesized that "reduced connections between these regions may mean that (1) emotion-related information from the amygdala that signals cues of threat, risk or harm to others, may not be able to reach cortical areas in order to inform decision making, resulting in the callousness, lack of empathy, risk taking, and instrumental aggression observed in psychopathy, and (2) cortical regions may be less able to send inhibitory signals to subcortical regions, resulting in deficits in emotion regulation and inhibition".

Ventral striatum impairments may also be observed in those who score high on measures/traits of psychopathy (Blair, 2013; Buckholtz et al., 2010; Glenn & Yang, 2012), resulting in increased sensitivity to reward, and decreased sensitivity to punishment. It is possible that an over-reactive reward system, derived from striatum abnormalities, contributes further to poor decision-making processes (related to instrumental aggression). In line with this, Hiatt and Newman (2006) suggested that an over-reactive reward system may explain passive-avoidance responses and ignoring external emotion-related cues as punishment.

Finally, other neural systems (such as the hippocampus, insula, and anterior cingulate cortex) may also be compromised in individuals with psychopathic traits, but findings related to these are not conclusive (e.g., Blair, 2010a; Yang et al., 2015). Importantly, experts in the field have repeatedly highlighted that none of the biological dysfunctions linked to psychopathy, are associated exclusively with psychopathy (e.g., Wahlund & Kristiansson, 2009; Yang & Raine, 2009). In fact, as Hardcastle (2013) emphasizes, to date, we have little consistent evidence for any specific biological or social correlates of psychopathy.

4.2.2.2. Contradictions. The most consistent finding regarding neural correlates of psychopathy is low reactivity in the amygdala and poor connectivity between this structure and the PFC, at least for Factor 2 related individuals. This hypoactivity of the amygdala implies and explains the low sensitivity to fear and threat and the poorer emotional responses which have been observed in psychopathic individuals. This seems to be consistent with "low fear hypothesis", low sensitivity to punishment or CU traits. On the other hand, the impairments in the

orbital and ventromedial prefrontal cortex, and reduced connectivity with the amygdala may also explain difficulties in emotional-learning processes and low sensitivity to punishment and consequent problems for acquiring social emotions and for inadequate socialization in psychopaths. This is also consistent with the lack of both empathy and fear of punishment evidenced in psychopaths. Taken together, along with a potentially over-reactive reward system, these findings are also consistent with instrumental aggression, considered prevalent in psychopathic individuals, at least, in those who could be considered either Factor 1 or 'primary' psychopaths.

However, in our opinion, these findings foreground important contradictions and inconsistencies in the literature and between the psychological/psychiatric explanations of psychopathy:

1. The nature of the hypothesized impairment in the PFC of psychopaths remains unclear. It seems that an under-responsive amygdala might lead to a limited accumulation of emotional knowledge. At the same time, 'primary' psychopaths (Factor 1) are described as having average or above average 'intelligence' and executive functions, which appears highly contradictory with the affirmation that they have an impaired PFC and poor decision-making (given that executive functions are thought to be mediated by the PFC).
2. Also, it seems that neurocognitive impairments are found only in 'unsuccessful' psychopaths (Yang et al., 2005; Yang, Raine, Colletti, Toga and Narr, 2010; Yang, Wong et al., 2010; Gao & Raine, 2010), that is, in individuals who would fall into the PCL-R Factor 2 group or be 'secondary' psychopaths, if both terms were taken as synonymous. In fact, impairments in connectivity between the fronto-limbic structures have been observed in this specific type of psychopath. The brain regions primarily involved in response to threat seem to be the medial and orbital frontal cortex, the amygdala, the hypothalamus, and the periaqueductal gray (Blair, 2010b). Additionally, a large component of reactive aggression is driven by the autonomic nervous system. Theories have been developed outlining the effects of early trauma experienced by 'secondary' psychopaths and its impact on brain regions involved in responses to threat which in turn leads to loss of control, impulsivity and hence reactive aggression (e.g., Vaughn, Edens, et al., 2009).

Therefore, the problem of internal contradictions among the findings and the paradoxical psychological profiles of these individuals remains, due to the fact that low reactivity of the amygdala, low emotional responses and instrumental aggression are hard to reconcile with impulsivity and disinhibition. They point in opposite directions as do instrumental and reactive aggression. Paradoxically, the findings show that both poor connectivity between the amygdala and the frontal lobe and impairments in the prefrontal cortex, result in deficits of emotion regulation and inhibition: impulsivity. In fact, damage in the orbito- and ventromedial prefrontal cortex has been related to 'acquired psychopathy' (resulting from brain injury) and with traits such as impulsivity, irresponsibility, disinhibited behavior, disregard for social rules or for others' feelings, as well as poor decision-making in emotional tasks. These traits are consistent with those observed in the well-known 19th century case of Phineas Gage (Damasio, Grabowski, Frank, Galaburda, & Damasio, 1994), who suffered major personality changes following an accident in which a large iron rod went through his head and severely damaged his left frontal lobe. But at the same time, with regard to impulsivity and again paradoxically, literature has not found any relation between the 2-repeat allele of the MAOA gene promoter polymorphism (strongly associated with impulsivity and reactive aggression) and psychopathy (Beaver et al., 2013). Moreover, some studies even suggest that "the blunt assertion that "psychopaths are impulsive" is no longer defensible" (Poythress & Hall, 2011).

In short: these findings suggest that psychopaths exhibit both high *and* low levels of anxiety; are stable *and* impulsive individuals; and are likely to engage in instrumental *and* reactive emotional responses… at the same time.

In addition, these findings are also in contrast to the two profiles underlying the psychological construct of psychopathy, because they are more explicative of the Factor 1 related profile of psychopathy, while they would correspond only to Factor 2 associated individuals, if it can be derived that both categories are the best correspondence for successful and unsuccessful psychopaths, referred to by the literature in this context.

In light of this, it is worth considering that some researchers have suggested that physiological impairments may be related only to unsuccessful psychopaths (Yang et al., 2005; Yang, Raine, et al., 2010; Yang, Wong et al., 2010; Gao & Raine, 2010). It is more likely that the two 'types' of psychopaths would only share decreased emotional empathy. However, behavioral modulation, executive functioning and decision-making point in opposite directions, suggesting deficits only in 'unsuccessful' psychopaths. At the same time, impairments in the OFC/amygdala system and cognitive regions such as the PFC seem to be deficient only for 'unsuccessful' psychopaths, while they are intact or enhanced in 'successful' psychopaths. Of course, both groups would also show very relevant behavioral differences; unsuccessful psychopaths are more likely to engage in 'blue collar crime' and physical violence, and to score higher on the antisocial features of psychopathy; whereas 'successful' psychopaths, would be more prone to 'white collar crime' and relational aggression, and would score higher on the interpersonal features of psychopathy (see Glenn & Raine, 2014, summarizing the diverging markers and traits).

4.2.2.3. Summary. From a legal perspective, reflection on the outlined findings takes us back to the important question of whether both types of individuals are truly and only psychopaths or not (Skeem et al., 2011:115) and whether Factor 1 and Factor 2 related psychopathy is the same 'disorder' or not. The key emerging question is, then, whether they both should be considered as equal under the law. It seems to us that: either the reported neural impairments are not the biological markers of psychopathy (given that they should be common to all psychopaths) and thus they cannot be used as evidence of a mental impairment for psychopathy; or that Factor 2 individuals might have another 'disorder' instead of or in addition to psychopathy, characterized by the combination of emotional and cognitive impairments, and that such a pathology would also express itself as a psychopathic traits variant. In either case, psychopathy by itself, would not be enough to meet the biological requirement.

In fact, this conclusion would be consistent with the DSM-5, and with the distinction between 'primary' psychopathy and 'secondary' psychopathy or between 'psychopathy' and 'sociopathy'. Also, it would be less problematic in relation to the concept of 'successful psychopaths', who clearly would not meet the criteria for the insanity defense. This clear differentiation is presented by the bifactor proposed by Patrick, Hicks, Nichol and Krueger (2007), who suggest that there are two temperamental features and neural phenotypic correlates underlying the interpersonal–affective and the antisocial factors of psychopathy. CU traits should reflect impairments in emotional reactivity, particularly related to fear, but the antisocial component, and concurrent impairments in the PFC, would be related to negative affectivity and impulsivity or impulse-control problems, and subsequently to a diminished decision-making process (Patrick, 2007).

Nevertheless, it is important to point out that despite these evident difficulties, theoretically, the global category of 'psychopaths' may meet, according to these findings, the legal criteria for an 'anomaly or mental alteration', resulting in two different legal profiles, one for each type of psychopathy. In such a potential scenario, it would first be necessary to establish the extent of hyporeactivity of the amygdala that can be considered pathological, in order to *potentially* categorize (and include) 'successful psychopaths'. Without such clarification, in line with current research, successful psychopaths (primary or Factor 1-related

individuals, if they can be considered equivalent) do not meet even this first criterion under the current understanding of the insanity defense or any other related mitigations.

However, the situation for 'unsuccessful psychopaths' (secondary psychopaths or Factor 2-related individuals) could be seen differently. They seem to show cognitive and volitional impairments, at least, in the most severe cases and therefore, they might be held (fully or partially) non-responsible or be considered for mitigation under the current law. Importantly, it ought to be highlighted that Factor 2 individuals would meet these criteria not for the neural impairments related to definitional CU traits per se, but for the reported (but not well-defined) global impairments in the prefrontal cortex and its connectivity with the amygdala (see similar proposal, Sifferd & Hirstein, 2013). Nevertheless, in order to prove such circumstance in courts, a clear identification of the specific biomarker(s) of unsuccessful psychopaths appears strongly necessary.

Finally, it is necessary to point out that the defense also requires that the alleged act was "due to" the mental anomaly or alteration. This means that the dysfunctional behavioral pattern associated with psychopathy cannot be generalized to all crimes, but only to those corresponding with this 'disorder'. This also seems particularly problematic, because psychopaths have been found to engage in both instrumental aggression/violence and impulsive/reactive aggression/violence. For the law, it is also necessary to clarify whether the supposed relation between instrumental aggression and psychopathy is consistent for all psychopaths or whether Factor 2-related individuals would be more prone to engaging in impulsive–frustration-based violence. It is easy to imagine how different would appear a case with behaviors involving each type of violence.

In fact, the form and function of aggression and violence has been identified in the literature as a differentiating feature between the two types of 'psychopathy' (e.g. Falkenbach, Poythress, & Creevy, 2008; Kimonis, Skeem, Cauffman, & Dmitrieva, 2011). Specifically, research evidence suggests (e.g. Falkenbach et al., 2008; Kimonis et al., 2011; Skeem, Poythress, Edens, Lilienfeld, & Cale, 2003) that 'primary' psychopaths engage more in 'instrumental' aggression, that is premeditated, proactive aggression, aimed toward satisfying a usually self-gratifying goal (Dodge & Crick, 1990), while 'secondary' psychopaths engage more in 'reactive' aggression, that is, a compulsive and emotionally charged hostile behavior in response to frustration, danger or a perceived threat (Berkowitz, 1983; Blair, 2010b). Reactive aggression, which is closely linked to impulsivity, has been linked to a wide range of other disorders (e.g., ADHD; Murray, Obsuth, Zirk-Sadowski, Ribeaud, & Eisner, 2016).

On the other hand, the callous–unemotional nature, inherent to 'primary' psychopaths, predisposes them to use others and engage in aggression and violence to meet their own needs in the form of 'instrumental aggression'. Emotions are described as playing a minimal role in this type of aggression (Glenn & Raine, 2009). Importantly, when measured overall, psychopathy has been found to be related predominantly to instrumental violence (e.g. Bezdjian, Tuvblad, Raine, & Baker, 2011; Chase, O'Leary, & Heyman, 2001; Lehmann & Ittel, 2012; Porter & Woodworth, 2007). In fact, one study (Reidy, Shelley-Tremblay, & Lilienfeld, 2011) identified psychopathy as a form of protective factor against reactive aggression. When looking at individual factors, a handful of meta-analyses found that Factor 2 of the PCL-R (e.g., Bezdjian et al., 2011; Declercq, Willemsen, Audenaert, & Verhaeghe, 2012) is more predictive of general violence than Factor 1. However, when looking at types of violence, a recent meta-analysis (Blais et al., 2014), based on reviewing 53 studies, found that compared to Factor 2, Factor 1 (most consistent with 'primary' psychopathy) is a stronger predictor of instrumental aggression, while Factor 2 (most consistent with 'secondary' psychopathy) is a stronger predictor of reactive aggression.

4.3. Normative element: cognitive or volitional impairments

In order to be considered accountable, the defendant has to be able to understand that what he is doing is unlawful. At the same time, he has to be able to control the illicit impulses, showing an average capacity to act in line with that comprehension. Therefore, for the law, brain abnormalities alone represent mere individual differences, which should not receive any special legal treatment. In our case, the supposed biomarkers of psychopathy shall not be considered for an insanity defense or mitigation, unless they specifically affect the cognitive or volitional capacity, as it is required by the law.

At the same time, accountability is dimensional, and it is necessary to differentiate different levels of accountability, and prove it, as well as the extent to which the defendant's mind was impaired at the time of the crime. Taking the case of the Spanish criminal law as example, impairments in the defendant's mental state might lead to three possibilities: A) First, an insanity defense ("eximente completa de anomalía o alteración psíquica"), when the defendant is found to be not criminally accountable for the offense due to having acted as a non-rational agent, in a fully impaired or severely abnormal state of mind in the moment of the crime, which makes him impervious to criminal rules. Thus, the defendant was not aware of his actions or was not able to distinguish legal 'right' from 'wrong'. In such situations, evidence must be presented to prove that the defendant does not understand the illicit meaning of the act (the "nature and quality" of the act and that it was legally wrong). A full insanity defense is also recognized, if evidence is presented that the defendant completely lacks the capacity to control his criminal impulses, with or without concurrent cognitive impairments. In these situations, the defendant is not held criminally responsible but may be seen as criminally dangerous (presenting high risk for recidivism). As a result, they do not receive a prison sentence but can be sent to a secure-psychiatric hospital to ensure public safety and to provide them with treatment/rehabilitation. B) The second option is a partial or incomplete insanity defense ("eximente incompleta de anomalía o alteración psíquica"), when the defendant is found to have significantly diminished responsibility. However, this would not warrant a full insanity defense. In this case, generally, the individual is sentenced to a combination of mitigated punishment and security including criminal commitment (mostly in prison…) as well as reformative measures in the form of treatment resources, such as psychological treatment for drug-abuse. The type of rehabilitation treatment used will depend on what appears necessary for decreasing the risk of recidivism. C) Finally, if accountability is found to be diminished to an even lesser extent (in cognitive or control capacities), a mitigation ("atenuante") is also possible in sentencing. The potential rehabilitating treatment would be provided under the general conditions of the Spanish penitentiary system.

Regarding psychopathy, CU-traits do not, by themselves, impact upon the required capacities, at least, not under the traditional interpretation of the insanity defense, which requires only a cognitive understanding of the wrongfulness (against the law) of the act. Self-control impairment (impulsivity) has not been identified as specific to those with high levels of CU-traits. Consequently, Factor 1-related psychopathy does not meet the criteria, again, for an insanity defense or any other mitigation. As we highlighted throughout, findings are contradictory regarding Factor 2 individuals and need to be clarified. On one hand, impairments in the fronto-limbic system lead to poor and *instrumental* decision-making in moral situations; on the other hand, those impairments, and in particular the limited connectivity between fronto-limbic structures, have been shown to be related to *impulsivity*. Impaired self-control/impulsivity might meet the criteria for impaired or limited volitional capacity. The problem is, that with unresolved contradictions over essential details and the lack of a dominant view in the literature, these findings do not satisfy the "rules of evidence" (see, *Federal Rules of Evidence*, 2015, Rule 702, for example). And moreover, again, such potential diminished responsibility in Factor 2 individuals does not reflect what is often seen as the core feature of psychopathy: the definitional CU traits.

Finally, for an accurate comprehension of the normative element of the insanity defense, and particularly regarding psychopathy, it is also

important to point out and keep in mind two other issues. The first one is the distinction between 'comprehend' and 'appreciate', as they are broader terms than 'know' or 'distinguish' and permit finer gradation of the nuances of disabilities. The second, and this is key for psychopathy, is that the references to "the unlawful nature of the act" (SPC) or to "criminality of his conduct" (MPC) appeal to a more legalistic conception of right and wrong. Accountability is built on the bases of a normative responsibility and requires a standard capacity to comprehend that the alleged act is *against the law* and, thus, prohibited and is also the capacity for self-control to obey the law and avoid criminal behavior, no matter the reason. The law, of course, responds to moral decisions of criminal policy, regarding social values, interests, and preventive goals. Specifically concerning accountability, the law translates into a normative decision, what appears acceptable in order to be held criminally responsible, in a specific society and at a specific time. That is, it establishes the minimum conditions to be considered, legally, a 'rational agent', as it is expected in the general population. Accountability, therefore, is considered prior to criminal responsibility. It is presumed for everyone, unless proven otherwise. If this standard capability is present, criminal responsibility is modulated by "mens rea" (guilty mind, recklessness or negligence) and the absence of any full or partial motivational excuse, for instance, duress. However, the expression "the wrongfulness of his act" (USC), unless interpreted as synonymous with *legal* "wrongfulness", evokes a morally infused understanding of accountability and it seems to appeal to a more internal commitment to the moral values underlying the law. This is important to understand and keep in mind, particularly with regard to psychopathy, in order to analyze (see below in the next section) the potential role of the emotion in the construct of criminal accountability.

5. Rethinking insanity defense? Emotion, human rationality and criminal responsibility

The legal formulation of the insanity defense has been challenged by advances in neuroscience and genetics (Morse, 2008a), including the external notion of underlying 'free will' (Feijoo Sánchez, 2012; Greene & Cohen, 2004). We have already pointed out that evidence from neuroscience forces us to question the failure of the insanity defense in some legal systems to recognize brain abnormalities and/or volitional capacity. However, regarding psychopathy, the key, specific, and more challenging issue is related to the role of 'emotions' in a potential new interpretation of the insanity defense (Morse, 2008b; Blair, 2008, Cancio Meliá, 2013; Glenn & Raine, 2014, among others).

Nowadays, science recognizes that both emotion and cognition, guide human rationality (Damasio, 1994) and that emotion is core in moral judgment and the moral decision-making process (Greene, 2003, 2004; Shenhav & Greene, 2014, for all). Moral behavior may be primarily guided by unconscious emotional processes (Haidt, 2001). Therefore, neural impairments in areas involving emotion regulation would compromise our moral judgments, as is suggested by studies of individuals with damage in the relevant brain areas (Koenigs et al., 2007).

This is a core point for psychopathy, given that the biomarkers for this 'disorder', particularly for 'unsuccessful psychopaths', are defined, precisely, by structural and functional impairments in brain areas involved in emotional moral responses (particularly involving harm to others) and decision-making processes (e.g. Raine & Yang, 2006b). Accordingly, Raine and Yang (2006b) have hypothesized that the lack of emotional empathy, in addition to brain impairments in the regions responsible for cognitive reasoning, may compromise neural circuits underlying moral decision-making. As a result, psychopaths may have a compromised capacity for rational agency, at least, for moral judgment, and may have significant implications for criminal responsibility. As Glenn and Raine (2014) pointed out, even though psychopaths may be able to cognitively distinguish right from wrong, they may lack the necessary emotions to motivate them to behave morally. In their opinion, the "law should accommodate the increasing psychological and neuroscientific evidence that emotional capacity is an important factor for translating factual knowledge about right and wrong into moral behavior" (p. 166, see also Levy, 2007; Vierra, 2016).

In our view, leaving aside now the problematic interpretation of the findings already discussed, the lack of or reduced capacity for moral reasoning in psychopaths (Lykken, 2000; Walsh & Bolen, 2012) could initially appear as relevant for criminal law, based upon the functional meaning of accountability: the assessment of the individual's capacity to be motivated by the law. Psychopathy would imply a more or less limited emotional (not cognitive) socialization and, consequently, difficulties in responding to both integrative and intimidatory preventive strategies of the law (see Roxin, 2012; also Feijoo Sánchez, 2007). Criminal law primarily aims to prevent crimes through integrative strategies based on a positive message sent by the law: an act is prohibited because of the need to protect a social good or interest, which is important and worthy, for example, life. Also, with the intimidatory prevention strategy (since Feuerbach, 1801, 1832:13 and ff. and recently *deterrence theory*), the law relies on the fear of the legal consequences of the criminal behavior in order to inhibit criminal impulses, for example, punishment or other reputational social costs. But of course, if psychopaths are refractory to moral socialization, it is clear that they will fail to be motivated by the law, because they lack the biological capacity for that.

This difficult topic was initially addressed by Stephan Morse in 2008 concluding that the current legal treatment of psychopaths is morally incorrect and it should be reformed. In his opinion, psychopaths lack moral rationality and, thus, severe psychopaths should be excused from their crimes, because they do not deserve blame and punishment. Morse proposed alternative forms of social control for psychopaths, such as involuntary civil commitment. He suggested that due to their lack of empathy and the fact that they do not get the point of morality psychopaths are not responsive to moral reasons to avoid crime. Morse further maintained that psychopaths "do not have the capacity for moral rationality, at least when their behavior implicates moral concerns, and thus they are not responsible. They have no access to the most rational reasons to behave well." (p. 208). Severe psychopaths would not be considered "members of the moral community and subjects to blame and punishment" (p. 209), because they would have a compromised rationality and, consequently, also volitional capacity.

Other authors (e.g., Caouette, 2013), while acknowledging that psychopaths may have more difficulties in acting morally, do not think that it would mean, necessarily, that they cannot do so. Furthermore, the typical psychopath is sufficiently in touch with reality as to be able to control his or her impulses, make decisions and engage in intentional action (Rich, 2013). Some (e.g., Hardcastle, 2015) contend that one's actual moral code has nothing to do with legal criminal responsibility; others (e.g., Hare & Neuman, 2010) believe that even though psychopaths might not control their behavior morally, they can control it rationally, because they understand what they are doing and have cogent reasons for what they do. It has also been posited that psychopaths would form moral judgments utilizing cognitive processes only (Cima, Tonnaer, & Hauser, 2010; Zhong, 2013).

In our view, firstly, it has not been established that psychopaths are indifferent to punishment. If they are not motivated by fear, then they may be by self-interest. It is clear that they care about their freedom. But more importantly, the key questions regarding this problem are: Is the decision of committing a crime just a moral decision for the individual? Does the law require an internal commitment to the moral values underlying the law? Should the law require that, given that emotion and cognition guide human rationality? In our opinion: No.

Briefly: "felonies or misdemeanours are intentional or negligent actions or omissions *punishable by Law*" (art. 10 SPC). The law is saying that a delict is what the law says that it is. Thus, it is saying that the wrongfulness of an act must be considered as legal wrongfulness, not moral. The unlawfulness of an alleged act is (and ought to be)

predominantly formal. That means it has to be against the law; not against what society, a group or an individual may consider 'morally' good or bad. It may be particularly difficult to define what is or is not moral, in our societies today, which are characterized by multiculturalism and the need for respecting minorities. In addition, criminal law should not protect 'morals', but public safety, the citizens' key constitutional rights and other key social rules, through highly consensual and democratic statutes (see, Mezger, 1933; Amelung, 1972; Calliess, 1974; González Rus, 1983). Of course, illegal acts include material transgressions (harm, injury or risk) against key social values or social rules (see Mir Puig, 2004, 2008), but the decision about what is worthy of protection is made a *priori*, a policy decision. What is already protected is a coercive law, which must be just: obeyed.

In response to this, criminal responsibility is the result of an imputation judgment of the defendant regarding the illicit act. The defendant is responsible, therefore, for not obeying the command of the law, when he was, in accordance with the normative standard, able to do so. The legal specification of who is able to 'do so' reflects, in reality, what each society and enforcement system consider as an acceptable excuse of the general conditions for criminal responsibility. That explains the differences between countries regarding, for example, the accountability of minors, mentally ill individuals or the legal treatment of individuals with addictions. Therefore, the question of whether the emotional component of human rationality should be considered or not does not have a direct legal response derived from what science can tell us about this. It will be, always, a normative response, which will depend on what is or can be accepted by a society, according to the dominant morality, and the functional consequences of changes to the law.

So, should the legal treatment of psychopaths be changed, by reinterpreting the insanity defense? In our opinion, no. Should they be exonerated, because, despite knowing that an act is prohibited or required, they do not care about the material harm of the forbidden act nor the punishment? In our opinion, no. Should those who are not internally and morally committed to the law, be held responsible for their act? In our opinion, clearly: yes.

First of all, because, as Morse also recognizes (2008:209), such an argument would theoretically lead to excusing or mitigating 'acculturated psychopaths' for their specific crimes. This would apply to fanatics, early indoctrinated terrorists or 'per conviction' criminals, who committed their crimes considering the others, basically, as 'enemies', 'subhumans', 'collateral' damage, or just irrelevants. It would also exonerate 'machos' in engaging in gender violence or people ideologically in favor of abortion or euthanasia (if the law prohibits them). Where would be the limit? Because all of them committed their crimes fully convinced that they are acting morally in accordance with their superior ideological, religious, ethical or cultural code.

The aim of criminal law is to protect society, in order to protect the rights of all its citizens, by preventing transgressions from core social rules and ethical values, decided in accordance with the rules of democracy. In order to make this possible it is important to warrant the enforcement of the law, the expectation that the law will be, in general, respected, even by those who do not ideologically or morally share its values (see Jakobs, 1976, 2004). Basing decisions about the enforcement of the law upon internal, individual peculiarities or differences would blow apart the very foundation of our current culpability-based criminal law system from within. And the alternative to this system is a criminal law system grounded on criminal biosocial dangerousness. There were past theoretical attempts (see in the last century the *Defense Sociale Nouvelle Defense Socialle* in France or the *Alternative Entwurf* in Germany, for example) and maybe this will be our future, but the discussion about this core issue is beyond the scope of this paper.

Finally, it is important to consider that the decision to commit a crime is not just a moral dilemma, given the mandatory (coercive) nature of criminal law. The law does not require or measure the individual's avoidance to harm others and does not ask about personal opinions of the defendant. It is an imperative that just asks to be and requires to be obeyed, without exception. The legal imperative requires *respect*, even if one disagrees or does not care. Therefore, the knowledge of the unlawfulness of the act and capacity for self-control are enough. Of course, it is possible that psychopaths do not find moral reasons to not harm others or they are not afraid of being punished in the way others are. Perhaps the definitional lack of emotional empathy makes it more difficult for them to inhibit criminal behaviors, given that they are driven only by instrumental reasons and self-interest. But in our opinion, such difficulties do not warrant differential treatment by the law or a reform of the notion of accountability.

6. Conclusions

While significant advances have been made by scientists to understand the etiology and nature of psychopaths, several questions still remain unanswered, related to its clear definition and identification. Considering the current 'status quo' of the psychiatric, psychological, genetic, neuroscientific and criminological literature, there is not a strong and consistent scientific basis for reconsidering the current legal treatment of psychopaths. Therefore, they should continue to be held fully responsible in the eyes of the law. We do not close the door, of course, to further advances in research, particularly regarding psychopaths in the Factor 2 group, also called 'secondary psychopaths' or 'sociopaths', who would be more likely to meet criteria, at least, for a mitigation, considering their supposed cognitive and volitional deficits. Paradoxically, this recognition would also give scientific evidence to defend a more severe treatment based on their bio-social ($G \times E$) dangerousness. Before any decision is made, it is necessary to clarify, first, the concept of psychopathy, establish a coherent differentiation between types of psychopaths and identify the neurobiological correlates (and cognitive and/or volitional implications) of psychopathy. Finally, we also conclude that the emotional component of human rationality, which may be impaired in psychopaths, should not be integrated in the normative notion of accountability, because the decision to commit a crime is not just, or primarily, a moral dilemma, given the coercive nature of criminal law. The legal imperative only requires respect, being obeyed, with or without internal moral commitment.

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