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CRIMINAL HEREDITY:  
THE INFLUENCE OF CESARE LOMBROSO'S CONCEPT  
OF THE "BORN CRIMINAL" ON CONTEMPORARY  
NEUROGENETICS AND ITS FORENSIC APPLICATIONS\*

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SUMMARY

*At the end of the nineteenth century the Italian physician and anthropologist Cesare Lombroso established the foundations of criminological sciences by introducing a biological theory of delinquency, which was later discredited and replaced by the sociological approach. The theory of the "born criminal" was poor in methods and analysis, and turned out to be controversial in its formulations, assumptions, and mostly in its predictions. However, recent research in behavioral genetics and neuroscience has brought back some version of the Lombrosian idea by providing evidence for the genetic and biological correlates of criminality. This research has been impacting legal proceedings worldwide. In this paper, I compare the Lombrosian and the contemporary scientific meanings of "heredity" and "predisposition" to aggressive and violent behavior, by highlighting theoretical similarities and differences in the two approaches. On the one hand, the paper is arguing against the idea that contemporary theories are radically deterministic, while on the other hand it aims at rehabilitating the intellectual image of Lombroso by showing that the denigration of his brilliant work by his successors was unjustified.*

*Introduction*

Since the mid-20<sup>th</sup> century, "Lombrosian" has been widely used as a negative, almost scary epithet to denigrate and discredit approaches

*Key words:* Lombroso – Neurolaw – Criminality – Genetics - Heredity

that correlate physical abnormalities with antisocial behavior, especially delinquency<sup>1</sup>. The Italian physician and anthropologist Cesare Lombroso (1835-1909) is considered a puzzling figure and a contradictory theorist, especially in Italy and in legal theory, while being acknowledged as extremely significant for the foundations of criminological sciences mainly by Anglo-American criminology textbooks<sup>2</sup>. Cesare Lombroso, whose real name was Ezechia Marco<sup>3</sup>, is internationally well-known and remembered as the scholar who at the end of the nineteenth century suggested that detectable physiognomic and cranial traits could identify people who were born to offend<sup>4</sup>. His theory was poor in methods and analysis, and turned out to be controversial in its formulations, assumptions, and mostly in its predictions. Despite his naïveté, which reflected scarce scientific knowledge mixed with the cultural prejudices of his time, relevant aspects of Lombroso's work were obscured as well, opening them to rejection and unjustified misinterpretations.

Some events solicit a historical and conceptual reconsideration of Lombroso's work today. Recently behavioral genetics and neuroscience<sup>5</sup> brought back some version of the Lombrosian idea of criminal heredity. This research has been impacting legal proceedings worldwide<sup>6</sup>, especially in Italy, where for the first time in Europe it affected court decisions<sup>7</sup>. This approach – now referred to as *neurolaw*<sup>8</sup>, and here intended in its practical dimension<sup>9</sup> - has been accused of being basically “neo-Lombrosian”<sup>10</sup> and received a number of criticisms for this<sup>11</sup>.

This paper does not have strictly a historical purpose but has two conceptual goals. On the one hand, it is arguing against the idea that contemporary theories endorse radical versions of determinism, while on the other hand it aims at rehabilitating the intellectual image of Lombroso by showing that the denigration of his brilliant work by his successors was unjustified. The paper makes distinct contributions, each in a separate section. Section 1 shows that the

emergence of neurolaw in Italy has nothing to do with the fact that Lombroso was Italian, since Lombroso had always faced considerable adversity in the country. Section 2 identifies the relevance of Lombroso's approach for American criminology. In Section 3 and 4, I will give examples of Lombroso's contributions to contemporary research. Section 5 sums up reasons why we should rehabilitate the term Lombrosian.

*1. Who's afraid of Lombroso? Italy and the emergence of neurolaw despite the prevailing antinaturalistic consensus about crime*

Italy is the first country in Europe where technologies seeking genetic and brain activation patterns (i.e., PCR, fMRI, VBM) were used in insanity defenses in courtrooms, specifically in 2009 and 2011. In the first case in Trieste<sup>12</sup> the Court upheld the appeal for penalty reduction filed by the defense of a murderer, taking into account his "genetic vulnerability" to aggressive and impulsive behavior. In the second homicide case, the judge of the Court of Como defended the idea of "making use of shared acquisitions about brain morphology and genetic structure" in the legal domain<sup>13</sup>.

Although other genetic polymorphisms were detected, scientific and public debate focused on the monoamine oxidase A (MAOA) gene, whose low variant had been associated with a high risk of antisocial, impulsive and aggressive behavior. The first time MAOA deficiency was put forth as a defense in a legal trial was in 1995 in the U.S.<sup>14</sup>, but it was rejected. There is also another side of this story. It is reported that the defendant's father fired his son's lawyers, "perhaps mindful of the potential implications of any positive genetic findings for the rest of his family"<sup>15</sup>, and the possible stigma deriving from the idea of inheritance of genetic traits. Since then, at least 48 criminal cases based on behavioral genetics have taken place in U.S. courts<sup>16</sup>, whereas neuroimaging has been used in many more cases, dating back to the 1980s<sup>17</sup>.

Given Lombroso's Italian origin and these recent Italian verdicts, it could be concluded that Italy was the perfect place to resuscitate Lombrosian theories, or in other words, biological determinism<sup>18</sup>. However, this was not the case. Italian culture and prevailing criminal doctrine has been anti-Lombrosian in many ways, both discarding and ridiculing the image of Lombroso. Over the years, his theories have been accused of being racist, sexist, totalitarian, deterministic, and methodologically coarse. A better approach would be to put these theories into historical context so as to avoid being distracted by the prejudices or trivialities they contain and instead appreciate the relevance of the theoretical patterns that may emerge from them. Lombroso accumulated a fair number of enemies: the Catholic Church<sup>19</sup> and New-idealists<sup>20</sup>, the Italian Classical School of Criminal Law<sup>21</sup>, the Sociological School<sup>22</sup>, feminists<sup>23</sup>, historians<sup>24</sup>, and even biologists<sup>25</sup>. He was sensitive to the bad reputation he had among his contemporaries ("a social buster"<sup>26</sup>), nevertheless he defended his empiricist inspiration.

In Italy his Positive School (founded with Enrico Ferri and Raffaele Garofalo) received transient consideration among legal scholars, and mainly impacted the justice system, prison administration and public security more generally, especially with regard to social control measures<sup>27</sup>. The drafters of the Italian Penal Code (Codice Rocco, 1930) rejected Enrico Ferri's proposals of 1921 and maintained a voluntary conception of human action<sup>28</sup>. Similarly Italian criminology was linked to Left-wing sociology<sup>29</sup> and depicted Lombroso as a conservative thinker.

Italian neuroscientists have kept reasonable distance from Lombroso since his findings were disconfirmed<sup>30</sup>, mostly because of his poor methodology. Lombroso's research method consisted in: reporting, comparing and assessing phenotypical measures (anthropometry); classifying observations of criminals' facial and body characteristics (physiognomy); identifying cranial and cerebral traits (phrenology);

and in correlating them with deviant behavior (for example, social and linguistic nonconformities) and with deformities deriving from ancestral times (degeneration theory). In sum, this was an original – although incorrect - elaboration of *in vogue* modern science sources including Auguste Comte, Ernst Haeckel, Franz J. Gall, Benedict-Augustin Morel, and Paolo Marzolo<sup>31</sup>.

It was during the 2<sup>nd</sup> Congress of Criminal Anthropology in Paris in 1889 that Lombroso's experimental tools reflected a combination of scientific and statistical naïveté. They lacked definitions and examples, and were full of misinterpretations of the data. He confused correlation and causation to the point that Monitz Benedikt ridiculed him publicly by showing that Lombroso's main discovery (the enlarged median occipital fossetta) was correlating with haemorrhoids as well. Prior to Léonce Manouvrier's objections, Lombroso did not use control groups (so there was no idea of what the "honest man" was like). He became however the first in criminology to use controls<sup>32</sup> in his book *The female offender*, even if continuing to ignore random selection. He also admitted the inadequacy of anthropometry and preferred "anatomical-pathological investigations".

## *2. The relevance of Lombroso's approach over his method and his legacy in American science: the leitmotiv of criminal heredity*

Despite his bad reputation, Lombroso had great influence on the Anglo-American culture, especially if we consider that none of the five different editions of *L'uomo delinquente* (1876, 1878, 1884, 1889, 1896-7) were translated into English until 2006<sup>33</sup>. American circulation and reception of Lombroso's ideas is difficult to reconstruct<sup>34</sup> and became with *The female offender*<sup>35</sup> in 1895, and with two other texts of 1911 (an English version of the third volume of the last edition of *L'uomo delinquente*<sup>36</sup>, and a synopsis written by his daughter Gina<sup>37</sup>). Even if little of his vast production<sup>38</sup> landed on American soil, mainly through magazine columns, compendiums

and a famous biography<sup>39</sup>, some Americans got enthusiastic about his science<sup>40</sup>, at least until the 1980s when his image fell out of favour in the U.S. as well<sup>41</sup>. While other precursors can be mentioned and the picture is more complicated than here described, relevant American literature still acknowledges Lombroso as the founder of criminological science<sup>42</sup>.

Nonetheless, the innovative force of Lombroso's work was not his method<sup>43</sup>. The naturalistic idea of seeking biological markers for antisocial behavior was his main legacy<sup>44</sup>. He moved the attention from the study of crime to the criminal and questioned the distinction between criminality and psychopathology.

Heredity is a core concept in Lombroso's criminological work, which pioneered genealogical studies for antisocial traits. He devoted a section of the *Criminal Man* to heredity but paid little attention to how it works. He suggested that a specific kind of recently recognized deviance (i.e., moral insanity) was present uncontrollably from birth through familial lineages and ascribable to ancestral time. These ideas arose<sup>45</sup> just before Galton's definition of the term "heredity" as an intergenerational relationship carried by discrete factors or traits (in contrast to the vague term "inheritance" and the idea of "germ plasm")<sup>46</sup> and years before the circulation of Mendel's laws in properly genetic terms in 1900. Therefore, if we consider them with today's eyes they are scientifically very imprecise. While criminal heredity, in pseudo-evolutionary terms, was Lombroso's insight, the famous expression *born-criminal* was not his own idea. It was adopted in the *Criminal Man* from the second edition, just after Enrico Ferri coined it in 1880. Ferri believed in the multicausality of crime (anthropologic, telluric, and social) and distinguished between occasional and habitual offenders. Lombroso himself never claimed that *all* criminals were born-criminal but rated born-criminals between 33-40% of all criminals<sup>47</sup>. Although he never classified

criminals systematically, we can find four major categories in his work: generally insane criminals, somatically identifiable criminals (born-criminals or *morally* insane criminals, and epileptics), an intermediate zone (alcoholics and hysterical criminals), and occasional criminals (passion criminals, habitual criminals or criminaloids)<sup>48</sup>. The clarification that the born-criminal is not a generally insane criminal but it corresponds to the category of the *morally* insane was made by Lombroso lately, but it is very significant for our purposes. What Lombroso and his School left to posterity are a number of fruitful research directions to criminology, which are summarized hereafter.

*3. Lombroso's behavioral descriptions: towards the identification of antisocial personality disorder*

What scarcely emerges today and would require further study is that Lombroso's contribution might have been pivotal in the history of forensic psychiatry for the identification of the crucial diagnostic category of antisocial disorder. Lombroso spends much space on the descriptions of born-criminals, cruel people who lack self-control and feel neither remorse nor shame. Two famous personalities are Vincenzo Verzeni and Giuseppe Villella. The former was a sadistic rapist and killer from Bergamo, also called "the vampire of Padania":

*Non mostrò né rimorso né vergogna [...] la prova si avea [...] nella tendenza di godere sessualmente agonizzanti cadaveri e sostituire anzi il coito col ferimento, con lo spapolamento del cadavere, che provoca, come confessò Verzeni, un vero godimento venereo<sup>49</sup>.*

The latter, a brigand sentenced for burglary, was exaggeratedly described by Gina as "an Italian Jack the Ripper, who by atrocious crimes had spread terror in the Province of Lombardy"<sup>50</sup>.

The same was said for female born-criminals:

*La Tiburzio, dopo avere ucciso una sua compagna incinta, si mise a morderla ferocemente, strappandole brani di carne che gettava al cane. La Chevalier uccise una sua cognata incinta, introducendo una forbice per l'orecchio nel cervello. La P. non cercava di ferire nelle sue vendette gli amanti, perché le ferite erano, secondo lei, troppo povera cosa; preferiva accecarli spruzzando loro negli occhi polvere di vetro che stritolava coi denti. [..]<sup>51</sup>.*

What he is interested in is moral insanity, a brand-new nosological category supported by evidence and intended as an alteration of moral sense. This behavior will be later identified as “psychopathy” by Hervey Cleckley in the 1940s, leading to the diagnostic categories of antisocial personality disorder (APD) and conduct disorder in the DSMs<sup>52</sup>. Lombroso never uses the term “psychopath” in this sense, which was first introduced by Julius L.A. Koch in 1888, but refers to a phenomenon (“*manie sans délire*”) already described in 1801 by Philippe Pinel and named “moral insanity” by James C. Prichard in 1835. Beyond M. Gouster’s contribution in 1878, some authors also credit Lombroso for contributing to the list of symptom clusters prefiguring the future DSM classification, especially behavioral symptoms<sup>53</sup>.

There is a peculiar aspect to be mentioned. Lombroso intended psychopaths, for example serial killers, in contemporary terms, namely as individuals who are deviant in the *affective* component of the moral capacity<sup>54</sup> but still have a “mask of sanity”<sup>55</sup>, since somehow they have rationality preserved. It was not until the 1970s, with the first introduction of the Psychopathy Check List<sup>56</sup>, that a number of domains and traits for APD diagnosis, which Lombroso had already described, were finally identified (e.g., interpersonal deceit and grandiosity, superficial and irresponsible lifestyle, impaired affect resulting in lack of remorse and sympathy, lack of impulse control and obsessive aggression from an early age).



#### 4. Lombroso's ideas in contemporary neurogenetics

##### 4.1 Atavism

Lombroso's concept of criminal heredity passes through atavism, the view that the criminal is a backward regression to a primitive and savage state of evolution, conceived as inferior and immoral (exactly the opposite of the "good savage"). Criminal traits are thus defects inherited from ancient degenerative lines, where evolution is intended as a form of progress:

*Qui vi è una prova anatomica della stratificazione della delinquenza: vale a dire la tendenza dei rei ad ereditare forme, non solo dell'uomo selvaggio, preistorico, ma dell'uomo antico, dello storico*<sup>57</sup>.

A story that for most critics was fabricated to fit his theory is that of a post-mortem study conducted "one cold day November morning"<sup>58</sup> (1870), when the identification of a small hollow (then named *median occipital fossa*) on the Calabrian bandit Giuseppe Villella's skull moved Lombroso towards the idea of atavism. The fossa resembled a depression in inferior animals, especially rodents. So Lombroso speculated that this trait, along with others (including behavioral traits such as cannibalism, tattooing, jargon, etc.), was a mark of hereditary criminality from ancestral groups, infancy and "primitive" populations. Lombroso adds that moral insanity originates spontaneously among "savages" and children because it flows from their lack of self-control.

Although atavism is officially discredited today because of its evident and unacceptable racial prejudices, nowadays evolutionary theories of psychopathy are a relevant contribution to contemporary forensic psychiatry. They echo Lombroso's intuition insofar as psychopathic traits are intended as ancestrally selected. Contemporary evolutionary models for psychopathy can be grouped into two sets

of explanatory models<sup>59</sup>. The first set of models are *adaptationist* models, which suggest that psychopathy may be an adaptation rather than a pathology. In this case, psychopathy is intended as a life history strategy, a selection for manipulative expertise within social groups, more than a defect as speculated by Lombroso<sup>60</sup>. Adaptationist models include the following. Firstly, theories of *balancing selection*, according to which psychopathic traits have been selected for because they offer a fitness advantage, in terms of mating success, social dominance and resource gain, in specific environments or depending on their low frequency in some environments. Secondly, *contingent shift* theories, which claim that psychopathic traits are an adaptive response to contingent changes in physical and social environmental conditions or in one's own heritable phenotypic characteristics. Beyond adaptationist models, a second set of evolutionary models intend psychopathy as a dysfunction and suppose that the disorder comes from a *mutation load* of deleterious traits from ancestors through many generations. In brief, contemporary evolutionary models of psychopathy seem to manifest some aspects of the logic of the degenerative approach from 19<sup>th</sup> century science<sup>61</sup>. Accordingly, this is true of the idea of psychopathic traits as biologically heritable, but not necessarily defective, and more rarely of some speculations that these traits may represent either an earlier stage of development (child-like)<sup>62</sup> or an evolutionarily less developed brain<sup>63</sup>. On the other hand, there is also the idea that some psychopathic traits (the so-called Machiavellian intelligence<sup>64</sup>) may have been preserved because they might still have evolutionary benefits in contemporary competitive environments (e.g., corporations) to get leadership and success<sup>65</sup>.

#### 4.2 Nativism

An indicator of born-criminality for Lombroso is that it typically has an early onset in children and adolescents. Lombroso states:

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*I grandi delinquenti cominciarono tutti a mostrarsi tali nell'età giovanile, specialmente allo sviluppo della pubertà*<sup>66</sup>.

He even speaks of “moral insanity germs”<sup>67</sup> that manifest themselves at an early age, speculating that probably they are present from the fetal stage as other kinds of “monstrosities”. He reports several cases of young children who showed unbelievable degrees of cruelty, cheating and aggression, mixed with vanity and poor affect. He speaks of a child named Lafargue who took pleasure in strangling chickens, a nine-year-old brigand who was also a rapist and a thief, an eleven-year-old boy who nailed oxen’s tongues to benches. He mentions another child who tried to strangle his siblings at the age of eight and got his father arrested for it, or a turbulent child from Romagna who killed a companion<sup>68</sup>. Sometimes they are said to come from honest families, but in many cases criminal traits are highly prevalent in close familial members and genealogical tables of famous criminals’ families are reported as evidence for this claim. Lombroso distinguishes born-criminal men and women by reporting that statistically the number of criminal women is less than men. In an era of sexual prejudices, he has a slippery argument for this, which deserved fervent reactions from feminists. That is, women’s lower crime rates provided proof of their mental inferiority, which is false.

Early onset of deviant behavior (especially animal torturing and aggression) and family history are two typical features for the current diagnosis of APD (i.e., antisocial personality disorder). Furthermore, evidence for genetic and highly heritable factors for antisocial behavior came from behavioral genetics studies from the 1990s and showed selective deficiency of enzymatic activity of monoamine oxidase (A) in a Dutch family in which several males were affected by disturbed regulation of impulsive aggression<sup>69</sup>. The low variant of this gene (MAOA-L) implies that amine neurotransmitters in the brain (serotonin, dopamine, epinephrine and norepinephrine) are not

properly metabolized and consequently cause aggression, specifically in individuals who experienced childhood maltreatment (i.e., abusive parenting)<sup>70</sup>.

There is another interesting aspect. The MAOA gene is located in X chromosome (Xp11.23–11.4), thus affected men (XY) with a single copy produce no MAOA enzyme while women (XX) with the MAOA-L variety on one chromosome may have a normal allele on the other. Today this is presented by geneticists as an argument of why women show less rates of APD than men<sup>71</sup>.

Other genes have been found to be involved in various antisocial types (ADHD, conduct disorders, addiction and so on)<sup>72</sup>.

#### *4.3 Reductionist materialism*

According to Lombroso, crime is a natural fact rooted in material aspects, specifically insane crime is “consequence of an alteration in the brain”<sup>73</sup> that may be either innate or acquired. Lombroso mentions the zoologist Karl Vogt in his works and translates the venerated Dutch mentor Jacob Moleschott to spread the materialist approach in the Italian context<sup>74</sup>. Lombroso’s research consisted in reducing mental abnormalities to physical defects. This is why he is ascribable to a reductionist approach. “The moral sense – the highest point in evolution” he says “is the first to disappear when the brain become infirm”<sup>75</sup>.

The rise of cognitive neuroscience in the 1980s gave new life to reduction models<sup>76</sup>, especially mechanistic explanations about how neural mechanisms realize cognitive functions. There is fairly strong consensus today on the connection between antisocial behavior and alterations in networks of frontal and temporal lobes in the brain<sup>77</sup>, especially resulting in dysfunctional emotional responses to moral situations<sup>78</sup> (corresponding to what previously referred to as “moral sense”). These responses are thought to derive from the expression of several candidate genes (and not a single gene only) in stressful

environments. Mechanistic explanation in cognitive neuroscience is currently based on very complex top-down/bottom-up reductions between higher-level descriptions of mental states and lower-level descriptions of brain states, where multiple causal levels (including input stimuli, like environmental factors) interact non-linearly<sup>79</sup>.

Lombroso's idea of reduction was rough. On the one hand, he inferred biological abnormalities from the observable somatic traits (phenotypes) whereas contemporary reduction seeks morphological and functional traits in the brain or genotype. On the other hand, he only suggested one-to-one direct localizations from behavior to specific body features and never came to complex reductions<sup>80</sup>.

#### *4.4 Which determinism?*

Lombroso has been frequently accused to be a biologically determinist, or rather to exclude the environment from crime etiology. Following Ferri, he actually explained that crime has multiple interacting causes<sup>81</sup> and discussed environmental factors starting from the second edition of the *Criminal Man*. On the one hand, he was aware that environment operates by modifying moral sense and that unfavorable environment may trigger criminal behavior. He however believed that environment is decisive in correcting occasional criminals, but not born-ones:

*Ma noi sappiamo che se è possibile l'emendarsi in un nuovo ambiente pei delinquenti d'occasione, non lo è pei delinquenti nati [..]<sup>82</sup>.*

A recent meta-analysis<sup>83</sup> tested 27 studies about the interaction of MAOA genotype and childhood adversities on antisocial outcomes and found a significant gene/environment interaction, particularly in men. Contemporary genetics and epigenetics show that environment is an essential factor to regulate gene expression, so biological determinism in this sense has been basically disconfirmed. Moreover,

current biological research alone is believed to have limited role in predicting future criminal acts<sup>84</sup>.

On the other hand, Lombroso denied free will in terms of causal control on one's own actions (given the fact that every event is causally determined only by the laws of nature, in other words *causal determinism*):

*Un'idea criminosa può balenare anche nella mente di un uomo onesto, e in quella di un delinquente d'occasione [...] ma [...] troveranno al momento dell'esecuzione una ripulsa invincibile [...] altro è il pensare di voler fare una cosa, altro è il farla; il che prova [...] che in ogni uomo vi è un'impossibilità assoluta a compiere certe azioni, il che prova cioè che non esiste il libero arbitrio<sup>85</sup>.*

This is a slightly different and more sophisticated view than the one generally attributed to Lombroso. The problem of free will vs. causal determinism (along the spectrum that goes from the compatibilist to the incompatibilist side) is still one of the most debated philosophical questions, refreshed by debates in contemporary neuroethics<sup>86</sup>. Albeit neuroscience presumably will not respond to whether we are living in a deterministic or indeterministic world<sup>87</sup>, findings about automaticity and unawareness<sup>88</sup> of our decisions at the neural level are questioning several folk-psychological concepts<sup>89</sup> related to the intuitive idea that voluntary processes are undetermined and free. One of these concepts is responsibility in terms of capacity and control.

#### *4.5 Consequentialist theory of punishment*

Lombroso articulated a new theory of punishment. Contrary to common thought that links free will with responsibility and punishment, according to which an insane cannot be held culpable for his conduct (and “could paralyze justice”<sup>90</sup>), he suggested to punish born-criminals, even if they lack free will and mental capacity, for reasons of social defence:

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*[..] se noi diminuiamo la responsabilità individuale, vi sostituiamo quella sociale che è ben più esigente e severa [..]<sup>91</sup>.*

Although Lombroso supported capital punishment near the end of his career, throughout his activity he refused the idea of punishment as social revenge and opposed capital sentencing (he tried to save Verzeni from this kind of verdict). He proposed confinement for born-criminals (even preventive, if necessary) promoting criminal asylums in Italy. Nevertheless he distinguished between punitive measures for occasional criminals (excluding prison for them) and hospitalization for born-criminals:

*Nel primo caso non occorre quasi una pena, il delitto è sì grave tortura pel reo, che non rinnoverà mai il suo crimine: nel secondo ogni mitezza ed ogni ritardo nel colpirlo è un pericolo per gli onesti<sup>92</sup>.*

Recently, similar considerations emerged in the neurolaw debate where the concept of moral responsibility has been challenged by neuroscientific theories. In order to respond to these challenges, some scholars proposed a consequentialist justification for punishment (e.g., as an instrument promoting social welfare)<sup>93</sup>.

APD patients are resistant to treatments, so the problem of their social dangerousness remains at stake. Future potentials includes treatments in form of psychopharmaceuticals, brain stimulations, gene therapy<sup>94</sup>, while ethical concerns are arising about whether or not enhancing morally psychopathic offenders<sup>95</sup>.

### *5. Is “Lombrosian” all that bad? Some conclusions*

I argued that Lombroso’s influence cannot be dismissed because of his prejudices or as mere pseudoscience. Whereas unfortunately racial and gender biases were ubiquitous at his time, and his research was methodologically problematic, there are important contributions left. Particularly, he paved the way for the scientific study of

antisocial personality disorder (now also referred as psychopathy) and for legal related issues.

Under the discredited label of “Lombrosian” hides the idea that biological theories of social behavior express a conservative view whereas sociological theories represent the liberal side. This common idea has unfortunate historical reasons, given the misuse of these biological theories by the Nazis years after the death of their author<sup>96</sup>. Nevertheless, this idea is based on false assumptions and misinterpretations. Lombroso was never a totalitarian (nor anti-Semitic being Jewish himself), but a liberal and socialist. Many liberals believe that social behavior can be inquired by a scientific approach. At present social psychology is thought to be affected rather by the opposite political bias, namely by the prevalence of liberal researchers in the field<sup>97</sup>. Moreover, most (if not all) biocriminologists would never endorse biological deterministic views that exclude environmental factors from criminological explanations, simply because these views are scientifically implausible. If ever, what is still at issue is causal determinism along with a number of associated legal reformulations that, as Lombroso anticipated, might derive from the biological study of antisocial behavior.

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50. LOMBROSO C., op. cit. note 37, 1911, 2015.
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