



Essay Review

The Holy Trinity and the Legacy of the Italian School of Criminal Anthropology

By Anthony Walsh

Review of *Born to Crime: Cesare Lombroso and the Origins of Biological Criminology*.
By Mary Gibson. Praeger Press. Hardcover - 272 pages (2002).

Mary Gibson, historian and professor at the John Jay College of Criminal Justice, has written a most authoritative work on Italian physician Cesare Lombroso and the origins of positivist criminology. For those who get their Lombroso third-hand from the rantings of textbook authors, many of whom have obviously not read any of his works, her book is a breath of fresh air. Gibson writes with the calm detachment of the professional historian about the theories produced by the Italian school of criminology, led by the famous triad (or "holy trinity," as they were once known) of Lombroso and the lawyers Enrico Ferri and Raffael Garofalo. Working with original Italian documents, only rarely does she betray her subjective point of view, preferring to defer to critics who were contemporaries of Lombroso. Another welcome aspect of her book is that she places everything into the social, political, economic, and historical context of the *risorgimento* (unification of Italy) completed in 1870. This both allows readers to understand the ideological underpinnings of Italian positivism while at the same time disallowing them the common practice of

judging older works by contemporary moral and scientific standards.

A Bridge Between the Classical and Positivist Schools

Although I enjoyed Gibson's book, I would have liked to see a short chapter outlining the transition from the classical school to the positivist school. There is no sharp discontinuity between classicism and positivism on all matters. The classical affirmation of human characteristics of free will and rationality did much to push science into the forefront as a method of gathering knowledge, as did its abandonment of supernaturalism and its embrace of the natural. Positivism did not disprove or destroy classical principles, it simply shifted emphasis from the law and penology to the individual offender. Gibson does provide a discussion of Cesare Beccaria's contribution, but he contributed nothing to the understanding of the individual criminal. The focus on the individual criminal in the positivist school is an important distinction between it and the classical schools, but this focus did not necessarily begin with Lombroso.

Although traditionally placed firmly in the classical camp, Jeremy Bentham's work may be considered a bridge between the two schools. Despite his classical view of human nature (humans were the rational possessors of free will), he never lost sight of its intricacies. While always maintaining the freedom of the will, he argued that the will was moved by "motives" (pleasure or pain) arising from the "bodily senses," which were differentially felt by people according to certain internal and external factors. He devoted an entire chapter of his *Introduction to the Principles of Morals and Legislation* to 32 biological, psychological, and social factors (e.g., intelligence, temperament, personality, gender, age, education, occupation) which he thought of as "circumstances influencing sensibility" (Bentham, 1789/1948). Although he only devoted a single paragraph to each one, the fact that he recognized internal and external constraints on rationality and free will places Bentham both among the last of the old classical criminologists and among the first of the positivist criminologists.

Even before Bentham there were many instances of individuals who went beyond the assumptions of rationality and free will to explain criminality, and who believed the human character and personality to be transparent in physical appearance. Consider Shakespeare's Julius Caesar's distrust of Cassius because he "has a lean and hungry look." Such folk wisdom was systematized almost 300 years before the publication of Lombroso's *Criminal Man* by another Italian physician named Giambattista della Porta (1535-1615), who developed a theory of human personality called *physiognomy*. Porta claimed that the study of physical appearance, particularly of the face, could reveal much about a person's personality and character. Thieves, for instance, were said to have large lips and sharp vision (Jones, 1986).

Almost 200 years later, Johan Kasper Lavater published his three-volume *Essays on Physiognomy* (1789), which was highly acclaimed in medical and scientific circles.

Lavater went further than Porta in claiming that the "higher" character of the English aristocrat and the "lower" character of the London thief could be discerned simply from a detailed study of their faces. In a similar vein, Hubert Lauvergne's 1844 study of French convicts concluded that they had faces which easily reveal their "brutal and impassible (incapable of feeling) instincts" (Jones, 1986). Lauvergne's descriptions of the facial features of convicts (massive jaws and receding foreheads) conjured up the same ape-like image that Lombroso's descriptions would 32 years later.

Lauvergne was a student of Franz Josef Gall (1758-1828), the founder, along with Johann Spurzheim, of another exotic system of assessing character from physical features called *phrenology*. Phrenologists claimed that the contours of an individual's skull revealed his or her psychic make-up. The basic idea was that various cognitive functions were located in the cerebral cortex, and that parts regulating the most dominant functions were thought to be bigger than parts regulating the less dominant ones. Thus, the relative sizes of a person's cranial bumps pointed to the relative strengths of his or her personality and character. Criminals were said to have cranial maps showing large protuberances in parts of the cortex thought to regulate craftiness, brutishness, moral insensibility, etc., and small bumps in such "localities" as intelligence, honor, and piety.

Criminals Born and Made

Given all these pre-Lombrosian figures, why is Lombroso considered the father of criminology. The short answer is for the same reason that Charles Darwin is considered the father of evolutionary biology, despite the numerous others who harbored similar ideas about evolution across the centuries. Lombroso actually produced hard evidence (poor as it turned out to be) to back his theories, was an innovative thinker and prolific writer, and he produced the first book (*Criminal Man*, 1876) entirely devoted to criminology (although he called what he was doing *criminal anthropology*).

Gibson informs us that just as the spirit of rationalism in the 18th century ushered in the classical school, the spirit of science in the second half of the 19th century ushered in the positivist (empirical) school. In other words, in common with Darwin, Lombroso was fortunate enough to be laboring in a period that demanded of theorists that they abide by the canons of science if their work was to be viewed as credible.

Lombroso took the term positivism from the French sociologist Auguste Comte, whose enthusiasm for "a science of man" also influenced Lombroso. Positivists in the human sciences fancied themselves to have divorced science from metaphysics and morals and to be looking only at what is, not what ought to be. Charles Darwin's publication of *The Descent of Man* (1871) was imbibed greedily by all positivists, including Lombroso, as was Ernst Haeckel's theory of monism (p.19). Recall that the central theme of monism is the so-called biogenetic law stating that ontogeny recapitulates phylogeny. That is, all organisms in their individual development (ontogeny) repeat the evolutionary history of the species development (phylogeny). It is probably the biogenetic law that most influenced Lombroso's idea that some criminals (not all, as is commonly assumed) are evolutionary "throwbacks" to an earlier form of life.

The central idea of Lombroso's work came to him as he autopsied the body of a notorious Italian criminal named Giuseppe Villela. As he contemplated Villela's skull, he noted that certain characteristics of it (specifically, a depression on the occiput that he named the *median occipital fossa*) reminded him of the skulls of "inferior races" and "the lower types of apes, rodents, and birds" (p.20). The term Lombroso used to describe the appearance of organisms resembling ancestral (prehuman) forms of life is *atavism*. Born criminals were thus viewed by Lombroso in his earliest writings as a form of human sub-species (in his later writings he came to view them less as evo-

lutionary throwbacks and more in terms of arrested development and degeneracy). Lombroso believed that atavism could be identified by a number of measurable physical stigmata, which included protruding jaw, drooping eyes, large ears, twisted and flattish nose, long arms relative to the lower limbs, sloping shoulders, and a coccyx that resembled "the stump of a tail." The concept of atavism was glaringly wrong, but like so many others of his time, Lombroso sought to understand behavioral phenomena with reference to the principles of evolution as they were understood at the time. If humankind was just at one end of the continuum of animal life, it made sense to many people that criminals--who acted "bestly" and who lacked reasoned conscience--were biologically inferior beings.

In addition to the atavistic *born criminal*, Lombroso identified two other types: the *insane criminal*, and the *criminaloid*. Although insane criminals bore some stigmata, they were not born criminals; rather they become criminal as a result "of an alteration of the brain, which completely upsets their moral nature." Among the ranks of insane criminals were alcoholics, kleptomaniacs, nymphomaniacs, and child molesters. Criminaloids had none of the physical peculiarities of the born or insane criminal, became involved in crime later in life, and tended to commit less serious crimes. Criminaloids were further categorized as *habitual criminals*, who become so by contact with other criminals, the abuse of alcohol, or other "distressing circumstances;" *Juridical criminals*, who fall afoul of the law by accident; and the *criminal by passion*, hot-headed and impulsive persons who commit violent acts when provoked.

Gibson informs us that, like a true scientist, Lombroso continually revised his theories throughout his working life. Although he is most remembered for his concept of the atavistic born criminal, his later works such as *Crime: Its Causes and Remedies*, listed a bewildering variety of possible causes of criminal behavior, including such unlikely candidates as

tobacco, hair color, and "goitrous districts." Notwithstanding Lombroso's recognition that crime has multiple causes, he still argued that "organic causes" accounted for 35 to 40 percent of the "fatal influence" on crime.

Enrico Ferri and Raffael Garofalo: Natural Crime, Offender Peculiarities, and Social Defense

Lombroso and two of his Italian disciples, Enrico Ferri and Raffael Garofalo, founded what became known as the Italian school of criminology. Both Garofalo and Ferri accepted as given the positivist notion that behavior is caused, but, like the classicists, they were more interested in criminal procedure and penology than in crime causation. However, it was Ferri, not Lombroso, who coined the term "born criminal," although Ferri's determinism was softer than Lombroso's (p. 31)

Ferri, like Garofalo, dismissed the notion of free will as myth, and he derived the same policy implications from its dismissal. Prepositivistic notions of culpability, moral responsibility and intent were to be subordinate to an assessment of the offender's strength of resistance to the criminal impulse, with the express purpose of averting future danger to society. He believed that moral insensibility and lack of foresight, underscored by low intelligence, were the criminal's most marked characteristics: The criminal has "defective resistance to criminal tendencies and temptations, due to that ill-balanced impulsiveness which characterizes children and savages" (Ferri, 1897/1917:11).

Ferri's primary concern was not the nature of criminality, although he thought it of great importance to identify and categorize them on a scale of dangerousness as a form of social preservation. Along with Lombroso and Garofalo, Ferri was instrumental in formulating the concept of *social defense* as a justification for punishment. This theory of punishment asserts that its purpose is not to deter or to rehabilitate, for how could behavior not based on rational calculus be deterred, and how could

born criminals be rehabilitated? Given the assumptions of biological positivism, the only reasonable rationale for punishing offenders is to incapacitate them for as long as possible so that they no longer posed a threat to the peace and security of society. This theory of punishment provides us with an example of how assumptions about human nature drive policies for dealing with crime and criminals. He was, however, an ardent proponent of measures to prevent crime among "occasional criminals" through social reform, and of efforts to rehabilitate them.

Garofalo is perhaps best known for his efforts to formulate a "natural" definition of crime. Classical thinkers accepted the legal definition of crime uncritically; crime is what the law says it is. This appeared to be rather arbitrary and "unscientific" to Garofalo (like the British-American system of linear measurement) who wanted to anchor the definition of crime in something natural (like tying linear measurement to the circumference of the earth, as in the metric system). Garofalo felt that definitions of crime should be anchored in human nature, by which he meant that a given act would be considered a crime if it was universally condemned, and it would be universally condemned if it offended the natural altruistic sentiments of probity (integrity, honesty) and pity (compassion, sympathy). Natural crimes are evil in themselves (*mala in se*), whereas other kinds of crimes (*mala prohibita*) are wrong only because they have been defined as such by the law.

Garofalo rejected the classical principle that punishment should fit the crime, arguing instead that it should fit the criminal. As a good positivist, he believed that criminals have little control over their actions. This repudiation of moral responsibility and fitting the punishment to the offender would eventually lead to sentencing aimed at the humane and liberal goals of treatment and rehabilitation. For Garofalo, however, the only question to be considered at sentencing was the danger the offender

posed to society, which was to be judged by an offender's "peculiarities."

By "peculiarities," Garofalo was not referring to Lombrosian stigmata, but rather to those particular characteristics that place offenders at risk for criminal behavior. He developed four categories of criminals, each meriting different forms of punishment: *Extreme, impulsive, professional, and endemic*. Society could only be defended from extreme criminals by swiftly executing them, regardless of the crime for which they are being punished. Here Garofalo departed from Lombroso and Ferri, both of whom were against the death penalty, although Lombroso gradually came to accept it for born criminals and for those who committed particularly heinous crimes (p. 27). Impulsive criminals, a category which included alcoholics and the insane, were to be imprisoned. Professional criminals are psychologically normal individuals who utilize the hedonistic calculus before committing their crimes, and thus require "elimination," either by life imprisonment or transportation to a penal colony overseas. Endemic crimes, by which Garofalo meant crimes peculiar to a given location or region (*mala-prohibita*), could best be controlled by changes in the law, not by imposing harsh punishments on offenders.

Psychological Positivism

After the death of Lombroso in 1909, positivism focused less on physical anomalies and more on mental deficiencies (p. 211). Early psychological positivism built on existing biological positivism, with emphasis placed on such concepts as temperament, impulsivity, and intelligence. Because temperament, impulsivity, and intelligence are re-emerging as explanatory concepts in modern criminology, we should know a little about how the early criminologists viewed them. Theorists such as Ferri, Charles Goring, and Henry Goddard invoked concepts such as "moral imbecility" and "defective intelligence" as causes of crime.

Goring found strong associations between the criminality of parents and children,

between siblings, and between spouses. Although family behavioral resemblances necessarily include genetic as well as environmental influences, Goring attributed these correlations predominantly to a characteristic he called "criminal diathesis," which he saw as a form of "defective intelligence" preventing the development of proper social and moral instincts (Goring, 1913/1972:26). Goddard also believed that low intelligence translated into criminality because people so-defined lacked the ability to distinguish right from wrong, although he also believed that temperament and the environment must conspire with low intelligence to make a criminal. A "feeble-minded" person with weak impulses and a quiet temperament may never stoop to crime unless duped by others or forced by necessity to do so, but an excitable and impulsive person of low intelligence, "is almost sure to turn in the direction of criminality" (Goddard, 1914/1979:101). The assumption of meaningful differences in intelligence between criminals and noncriminals has thus been a staple of positivistic psychology from its beginning.

In his later works, Lombroso came to believe that atavism alone was inadequate to explain the numerous anomalies observed in his "born criminals" and began to psychologize somewhat himself. He added the concept of fetal degeneration to explain non-inherited anomalies. If factors such as maternal alcoholism, venereal disease, or malnutrition blocked the stages of human development in the womb (in Haeckelian terms, from ancestral to human form), their offspring would be born with a predisposition to crime. This interplay between biology and the environment producing at-risk children led Lombroso to add two new categories of born criminals—the morally insane and the epileptic. The morally insane are people who appear normal in physique and intelligence but cannot distinguish good from evil. Epileptic criminals may commit crimes during obvious convulsions, but they may also do so when suffering from "hidden convulsions."

Race, Age, and Gender

As major correlates of crime, race, age, and gender did not go unexamined by the Italian school. Although I generally abhor the use of adjectives such as "racist," "sexist," and "ageist" to describe genuine efforts to understand behavioral differences between races, genders, and individuals of varying ages, the writings of Lombroso and Ferri were frankly just that. Lombroso never defined what he meant by race, multiplying the number of them promiscuously according to his needs. He even divided northern and southern Italians into two different races. This division must be viewed in the context of the "southern question," which was a central issue relevant to the stability and viability of the new Italian state. Northern Italians, who exhibited less criminal behavior and more industriousness than southern Italians, were considered the more civilized of the two "races." Southern Italians were more crime-prone and lazy because they were unlucky enough to have less Aryan blood than their northern countrymen (p. 108).

The most insensitive and offensive racial analyses were reserved for blacks, who, of course, had no Aryan blood at all. According to Lombroso, blacks were at the bottom of the evolutionary ladder, they have undeveloped brains that "weigh less than ours," and they have "infantile and monkey-like manner of smiling and gesturing" (p. 107). Likewise, Ferri placed blacks lowest on the evolutionary ladder, largely because their high rates of violent crime provided evidence that they had not managed to strip away the savagery of their animal origins. He remarked that "the Negro does not have a bad but only an unstable character like a baby, but with the difference that it is linked with mature physical development; thus this instability is the consequence of an incomplete cerebral development" (p. 108). In common with Lombroso, however, Ferri asserted that individual temperament, cognitive, and environmental conditions could assuage or exacerbate racial determination.

Female criminals fared equally badly under Lombroso's scrutiny, and this is where Gibson, quite understandably, lets some of her feeling show. According to Gibson, the publication of Lombroso's book *The Female Offender*, co-authored with Guglielmo Ferrero in 1893, was given impetus by a number of demographic changes in Italy. Women were becoming more "modernized" as they entered industry, males were immigrating to the New World in large numbers, and the resulting low sex ratio led to large numbers of illegitimate children and to prostitution. Women also bear stigmata, but they were fewer and less noticeable than male stigmata. Lombroso attributed this, as well as the lower rate of female criminality, to females being closer to their primitive origins than men. He also argued that women are basically children with underdeveloped moral senses, and who shared "impulsiveness, fickleness, puerile vanity, love for external appearance, and triviality" (p. 65) with savages. Women were also vengeful, deceitful, and jealous, but these traits do not translate into crime because they are neutralized by such female characteristics as the maternal instinct, piety, and the lack of passion.

As for children, the Italian positivists shared with numerous philosophers and psychologists throughout history, as well as with modern control theorists, that each generation constitutes a new batch of savages that have to be civilized by social institutions. Children are born without moral sense, but with vices such as anger, cruelty, dishonesty, and laziness, which are the traits of criminals. Lombroso and his followers were optimistic that most children will shed these vices under the aegis of a loving family (particularly a loving mother) and would acquire a moral sensibility "thanks to which crime will be for him no longer possible" (p.185). It is for this reason that members of the Italian school supported strengthening of the family and harshly condemned illegitimacy, since children born illegitimate are less likely to be loved (most were raised in orphanages in

Italy at the time) and to be supervised and monitored by caring adults.

The Politics of the Holy Trinity

Because the most severe criticism of the work of the holy trinity comes from the left among modern criminologists, it may come as a surprise that all three members were members of the Italian Socialist Party (PSI). Gibson informs us that Lombroso was a liberal in his youth and gradually came to embrace "humanitarian socialism" in his later years. Lombroso doubtless did more to help the disadvantaged than any 100 of those who dismiss him today as a reactionary ogre. He worked tirelessly for the poor, agitating for better schools, hospitals, and (gasp!) daycare for working mothers, and a year before he died, still described himself as a "convinced follower of socialist thought" (p. 28).

Ferri's socialism was perhaps stronger than Lombroso's. He even wrote a book (*Socialism and Modern Science*) championing the compatibility of criminal anthropology and Marxism that made some of the same points Peter Singer (1999) would make 100 years later when attempting to wed Marxism to evolutionary psychology. His Marxism showed in his faith that the social causes of crime could be eliminated, but because he was also a believer in a Darwinian human nature, crime, like disease, would always exist. Because of this latter point, he was frequently labeled as a conservative by his socialist colleagues. Ferri was also the PSI's strongest defender of civil liberties, often against strong opposition from other members (p. 34).

Garofalo was more conservative than the other two members of the trinity, being an ardent supporter of the death penalty. While he agreed with Ferri that human nature would always provide a goodly supply of criminals regardless of the social milieu, he denied that socialism and positivism were compatible—the first is a sociopolitical ideology, the second the application of the scientific method to observations. However, he was closer to Marx and

Engels in his evaluation of criminals. Gibson (p.38) states that he saw them as an "uneducated and howling crowd," which is a good deal more respectful of their humanity than Marx and Engels's description of them as the "dangerous class, the social scum, that rotting mass..." (1948:11).

The strong socialist and reformist views of the holy trinity make it clear how difficult it is to assign a political ideology to a scientific theory. Depending upon which aspects of Italian positivism we wish to emphasize, we could use it to support any ideological position. All three men were supporters of eugenics, but eugenics was almost universally viewed at the time as a liberal and progressive concern about preventing the suffering of "defective" offspring. They were men of their times, and their views should be judged by the standards of their times.

Modern Positivism

Just as I would have liked to have seen a lead in chapter on prepositivistic theory in this book, I feel that it would have also benefited from a brief postscript chapter exploring whether or not any of the work of the Italian school had merit. I do not mean whether Lombroso and his followers were right or wrong about any of their conclusions, but whether they were on the right track. That is, were any of their basic ideas plausible as judged by modern standards? As an historian, perhaps Gibson thought that she was not up to this task and that it best be left to professional criminologists.

Probably because of the excesses of the Italian school, positivism has become something of a boo word among many social scientists, particularly those enamored with post-modernism and its general repudiation of the application of the scientific method to human behavior. All too often we see positivism written about as if it is a substantive theory (and a purely biological one at that) of human behavior, which it is not. Positivism is a *method*, a way of exploring things, not a theory about those things. Gibson herself seems to make this

mistake when she refers to "alternative trends in criminology," such as "the sociological approach of Emile Durkheim and the 'Chicago School' in the United States" (p. 250). Adherents of these approaches would be surprised to find out that they were not positivists; i.e., empiricists. To the extent that they use the scientific method to detect patterns predicting criminal behavior, all contemporary criminological theories, biosocial or strictly environmental, are positivistic.

Gibson also perpetuates the notion that positivism is synonymous with "biological criminology." There is no such thing as a biological criminology, nor can there be. Those of us who integrate biological concepts into our work call our perspective a *biosocial* one, because it is impossible to talk about the biology of behavior without discussing the environment (and vice-versa). Evolutionary theories are fundamentally environmental in that they describe how environments have shaped the behavior of organisms as they strategically adapt to their environments, and how environmental inputs are needed for the emergence of adaptive behavior (Cartwright, 2000). Similarly, behavior geneticists realize that genetic influences on behavior cannot be understood without understanding the complementary influence of the environment (Plomin, 1995), neuroscientists recognize that many neural connections develop epigenetically according to experience (Glaser, 2000), and endocrinologists are aware that psychosocial phenomenon are powerful sources of hormonal activation (Hrdy, 1999). There are many places in Gibson's book in which it is clear that Lombroso and his followers did not neglect environmental influences, although they clearly favored biology.

Despite the negative press Lombroso receives in almost all criminology textbooks, some of his insights remain remarkably prescient. Even his most controversial concept of the born criminal has a growing number of supporters. Every cohort study conducted in any nation or at any time has shown that about six

to ten percent of criminals commit in excess of 50 percent of all crimes, and about 70 percent of all violent crimes (Walsh, 2002). Evolutionary psychologists posit the existence of a small number of criminals for whom antisocial behavior is an obligate strategy (Pitchford, 2001). We call these individuals primary psychopaths, although it is not postulated that psychopathic behavior reflects Lombrosian atavism or a defective genome. Rather it reflects a normal, albeit morally regrettable, alternative adaptive strategy forged via frequency dependent selection (Mealey, 1995). Primary psychopaths are probably what Lombroso had in mind with his "morally insane" category of born criminals; i.e., those "who appear normal in physique and intelligence but cannot distinguish good from evil." Robert Hare, the world's foremost expert in psychopathy, believes with Lombroso and company that primary psychopaths are born rather than made: "I can find no convincing evidence that psychopathy is the direct result of early social or environmental factors" (1993:170). Hare estimates that psychopaths comprise about 20 percent of the prison population, which is not all that far from Lombroso's estimate that 33 percent of criminals are born criminals.

The contention that there is a distinct behavioral type in human populations for which deception and exploitation is an obligate strategy is more difficult for many criminologists to accept in our more liberal times than it was in Lombroso's time. Obligate and conditional cheater strategies, each with its own distinct genetic basis, do exist in numerous animal species (Alcock, 1998). There is also some evidence that psychopathy constitutes a discrete taxonomic class (a categorical rather than continuous variable) *phenotypically* (Harris, Rice, & Quinsey, 1994; Skilling, Quinsey, & Craig, 2001). This evidence does not mark psychopaths as distinct from non-psychopaths *genotypically*, although the strong evidence of separate genetic taxons in other animal species renders it a distinct possibility. So perhaps Lom-

broso was right about the existence of born criminals, even though he plowed the wrong field to dig up his "proof."

Most criminals are not psychopaths, and there are criminals labeled as psychopaths, sociopaths, or antisocial personalities who were made that way by a combination of genetic diathesis and traumatic environmental conditions. These may be likened to the "habitual criminal" subcategory of Lombroso's criminaloids. The distinction between habitual and juridical criminaloids bears some resemblance to Terrie Moffitt's (1993) distinction between life-course persistent and adolescent-limited offenders also. The former begin committing antisocial acts prior to puberty and continue across the lifecourse; the latter begin during adolescence and desist in early adulthood. Lombroso and company may have been on the right track here with regard to positing two separate criminal career trajectories.

Epileptic criminals who suffer from visible and/or "hidden convulsions," is another type of Lombrosian criminal that receives some attention by modern criminologists. We now use the phrase *episodic dyscontrol* to describe Lombroso's hidden convulsions. Although only a very minute percentage of criminals suffer from these subconvulsive seizures, the prevalence of epilepsy in prisons is four to five times greater than in the general population (Ellis & Walsh, 2000).

We also have contemporary examples of Lombroso's insane criminals; i.e., those who become criminal as a result "of an alteration of the brain, which completely upsets their moral nature." The role of Lombroso's median occipital fossa has its counterparts today in the amygdala and prefrontal cortex. There has been a literal flood of studies over the past 15 years using PET and MRI imaging techniques linking psychopathy, violence, and aggression to various areas of the brain, most prominently the prefrontal cortex and the amygdala (see Siever, 2002, for a review). The amygdala helps to process emotions, and the prefrontal cortex

plays a vital role in modulating those emotions. Lombroso's contention that such environmental risks as maternal alcohol abuse could cripple the mother's health, and hence the health of the fetus, is conventional wisdom today. Alcohol use adversely affects neuron migration during gestation and can produce a syndrome known as fetal alcohol syndrome, which is related to criminal behavior. Thus, in relation to the effect of brain aberrations on antisocial behavior, the followers of Italian school of criminology were pioneers (if only crudely so) in probing of the underlying neurology of criminal behavior.

Some modern criminologists have even renewed interest in the link between physical appearance and criminal behavior. A survey of inmates in New York found that about half of them had at least a moderate degree of disfigurement other than tattoos (Kurtzberg, et al., 1969), and a review of the literature on the subject concluded prisons house a disproportionate number of disfigured males (Thompson, 1990).

Brennan, Mednick and Kandel (1993) examined *minor physical anomalies* (MPAs) and their relationship to crime. MPAs are not the obvious stigmata of Lombroso's atavists, they are rather minor defects, some of which require expert observation to detect. MPAs include webbed toes, extra toes, widely spaced eyes, and minor disfigurements of fingers and ears. The researchers hypothesize that genetic factors responsible for MPAs also affect certain aspects of central nervous system development that result in problems such as hyperactivity or impulsiveness that put the individual at risk for antisocial behavior. Evidence for this hypothesis is mixed, with some claiming that MPAs are related to violent crimes only if offenders came from unstable or broken homes (Raine, 1993:187). MPAs are positively correlated with other well known correlates of crime such as learning disabilities, ADHD, low verbal IQ, poor school performance, and schizophrenia (Ellis & Walsh, 2000).

Advocates of rehabilitation have recognized for some time that unattractive physical

features have a negative affect on rehabilitation efforts, probably because they may lead to low self-esteem and to rejection by prosocial others. Because of this, plastic surgery has been utilized in some U.S. prisons as a rehabilitative tool. A review of nine studies of prison plastic surgery outcomes found that six reported a reduction in the likelihood of recidivism, two reported no difference, and one found a higher recidivism rate among the surgery group (Thompson, 1990). Thus, the first scientifically researched correlate of crime has not entirely disappeared as a focus of interest for some criminologists, although none of them think of "disfigured" criminals as genetic "throwbacks" to an earlier evolutionary period.

What can we conclude about Lombroso's scientific work? Some criminologists, while acknowledging Lombroso's many errors in logic, research design, measurement, and elitist, racist, and sexist ideas, insist that his contributions are both misunderstood and undervalued. His methodology was badly flawed by modern standards, and this is particularly inexcusable in terms of his data analysis. Francis Galton had developed correlation and regression techniques in 1888/89 (Rushton, 1990), but Lombroso and his followers rarely ventured beyond simple descriptive statistics (frequencies, averages, and so forth). However, many of the things they did were improvements over previous attempts at positivistic criminology. From Lombroso on, there has been an enduring commitment to sort, sift, and measure all sorts of physical, psychological, economic, and social phenomena in an attempt to get to the bottom of crime and criminality.

To sum up, this book is an endlessly fascinating journey into the intricacies of early positivist criminology. Apart from lacking the kind of pre- and post Lombroso chapters I would have liked to have seen, I find only one fault in the book—its lack of a comprehensive index. Quite a number of individuals (e.g., Emile Durkheim, Gabriel Tarde) and concepts (e.g., biogenetic law, brain) mentioned in the

text are not included in the index. Nevertheless, anyone wishing to be informed about the Italian school of criminology is not likely to receive a more thorough education from any other single source anytime soon.

Anthony Walsh, Ph.D., Professor of Criminal Justice, Department of Criminal Justice Administration, Boise State University, 1910 University Drive, Idaho 83725-1955, USA. Email TWALSH@boisestate.edu.

URL: <http://cja.boisestate.edu/walsh.htm>

REFERENCES

- Alcock, J. (1998). *Animal behavior: An evolutionary approach* (6th edition). Sunderland, MA: Sinauer Associates.
- Bentham, J. (1789/1948). *A Fragment on Government and an Introduction to the Principles of Morals and Legislation*. W. Harrison (Ed.). Oxford: Basil Blackwell.
- Brennan, P., Mednick, S., & Kandel, E. (1993). Congenital determinants of violent and property offending. In Pepler, D. & Rubin, K. (Eds.). *The development and treatment of childhood aggression*. Hillsdale, NJ: Erlbaum.
- Cartwright, J. (2000). *Evolution and Human Behavior*. Cambridge, MA: MIT Press.
- Ellis, L. & Walsh, A. (2000). *Criminology: A global perspective*. Boston: Allyn & Bacon.
- Ferri, E. (1897/1917). *Criminal sociology*. Boston: Little, Brown
- Gibson, M. (2002). *Born to crime: Cesare Lombroso and the origins of biological criminology*. Westport, CT: Praeger.
- Glaser, D. (2000). Child abuse and neglect and the brain—A review. *Journal of Child Psychology and Psychiatry*, 41:97-116.
- Goddard, H. (1914/1979). Feeble-mindedness. In Joseph Jacoby (Ed.) *Classics of Criminology*, pp. 96-102. Oak Park, IL: Moore Publishing.

- Goring, C. (1913/1972). *The English convict: A statistical study*. Montclair, NJ: Patterson.
- Hare, R. (1993). *Without conscience: The disturbing world of the psychopaths among us*. New York: Pocket Books.
- Harris, G., Rice, M., and V. Quinsey (1994). Psychopathy as a taxon: Evidence that psychopaths are a discrete class. *Journal of Consulting and Clinical Psychology*, 62:387-397.
- Hrdy, S. (1999). *Mother Nature: A history of mothers, infants, and natural selection*. New York: Pantheon.
- Jones, D. (1986). *History of criminology: A philosophical perspective*. Westport, CT: Greenwood Press.
- Krause, J. & Kauffman, J. (1982). Minor physical anomalies in exceptional children: A review and critique of research. *Journal of Abnormal Child Psychology*, 10:247-264.
- Kurtzberg, R., Safer, H., & Mandell, W. (1969). Plastic surgery in correction. *Federal Probation*, 33:45.
- Lombroso, C. (1911/1968). *Crime: Its Causes and Remedies*. Henry Horton (translator). Montclair, NJ: Patterson Smith.
- Lombroso, C. (1920). *The Female Offender*. New York: Appleton.
- Lombroso-Ferrero, G. (1911/1972). *Criminal Man According to the Classification of Cesare Lombroso*. Montclair, NJ: Patterson Smith.
- Marx, K. & F. Engels (1948). *The communist manifesto*. New York: International.
- Mealey, L. (1995). The sociobiology of sociopathy: An integrated evolutionary model. *Behavioral and Brain Sciences*, 18:523-59.
- Moffitt, T. (1993). Adolescent-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100:674-701.
- Pitchford, I. (2001). The origins of violence: Is psychopathy an adaptation? *Human Nature Review*, 1:28-36.
- Plomin, R. (1995). Genetics and children's experiences in the family. *Journal of Child Psychology and Psychiatry*, 36:33-68.
- Raine, A. (1993). *The Psychopathology of Crime: Criminal Behavior as a Clinical Disorder*. San Diego: Academic Press.
- Rushton, J. Philippe (1990). Sir Francis Galton, epigenetic rules, genetic similarity theory, and human life-history analysis. *Journal of Personality*, 58:117-140.
- Siever, L. (2002). Neurobiology of impulsive-aggressive personality-disordered patients. *Psychiatric Times*, 19:1-10
- Singer, P. (1999). *A Darwinian left: Politics, evolution and cooperation*. New Haven: Yale University Press.
- Skilling, T., V. Quinsey, & W. Craig (2001). Evidence of a taxon underlying serious antisocial behavior in boys. *Criminal Justice and Behavior*, 28:450-470.
- Thompson, K. (1990). Refacing inmates: A critical appraisal of plastic surgery programs in prison. *Criminal Justice and Behavior*, 17:448-460.
- Walsh, A. (2002). *Biosocial criminology: Introduction and integration*. Cincinnati, OH: Anderson.