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Mind Reading Through Body Language in Early Spanish Criminology and Juridical Psychology

Annette Mülberger

INTRODUCTION

In the historical context of the nineteenth century, the modern subject became defined as a person possessing civil rights. Among them was the individual's right to have a private sphere, which included religious beliefs, domestic life and one's own subjectivity.¹ Subsequently, new sciences such as psychology and criminology were established as scientific fields and professions. One of their goals was to explore the human mind. This included "mind reading," a term I use here to refer to the psychological practice of discerning hidden thoughts, motives, attitudes and feelings of another person. Although psychologists, psychiatrists and criminologists did not

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use this phraseology to describe their professional activity, they nevertheless often dedicated great effort towards exposing the secret intentions of their subjects. The techniques developed by these professionals for reading the mind were both empowering and problematic, because they offered a way to invade the private sphere.

Often the psychological practice of mind reading was undertaken on (or through) the “outside,” on the subject’s physiognomy. Examining the body to gain knowledge about a person’s well-being or mental state is part of an enduring physiognomic tradition. Lavater’s physiognomy and Gall and Spurzheims’s phrenology in the eighteenth and nineteenth centuries are good historical examples and it was thanks to these developments in the nineteenth century that the body became “legible.”² Also, William Preyer’s attempt of 1886 to develop a technique of mind reading based on the registering of tiny, involuntary movements of the arm with the help of his palmograph is part of this tradition (see Chapter 1).

In the present chapter, I explore similar techniques applied on the body used by Spanish experts, working in the field of criminology and juridical psychology and how they tried to gain knowledge about a person’s mental predisposition towards delinquency and crime. Historians have already dealt with the emergence of criminology³ and the history of forensic or juridical psychology.⁴ The rise of these areas of expertise took place in the second half of the nineteenth century, when the emphasis in jurisdiction moved from examining and punishing crime towards getting to know and rehabilitate the criminal.

In contrast to the rich literature on Lombroso and criminology, a very limited number of historical works deals more specifically with the history of juridical psychology in Spain. Carpintero and Rechea summarized the ideas of some authors,⁵ while Belén Jiménez followed the Foucauldian approach, exploring the discursive formation and psycho-sociological construction of criminal subjectivity in Spain.⁶ Jiménez found in the scientific publications of the nineteenth century a transition from a “scholastic model”⁷ to a “liberalist model.” The turn implied a change in the way the aetiology of crime was explained; more precisely, it was a turn away from moral criteria towards the psychological. She interprets this as a move towards an exploration of the “inner part” or subjectivity of the human being.⁸ Despite its unquestionable value, Jiménez’s genealogical study is vague in many regards, leaving open questions. One main incognita is in regard to how the Spanish criminologists following the new approach

gained access to the interiority of a person and the question of what their apparent mind-control methods and techniques were.

Thus, my research tries to shed light on precisely this neglected issue. I examine body registers promoted and used by Spanish scholars at the end of the nineteenth and the first half of the twentieth century to detect a person's psychological tendency towards delinquent and criminal behaviour. In this sense, their methods consisted in psychological techniques aimed at mind reading. But why then did they focus on the body? Which bodily characteristics and actions were considered useful hints in judging a person's or a group's inclinations towards crime and deception? How were they registered and how were the registers interpreted? My aim here is to explore the procedures appropriated and invented by two Spanish scholars and how their techniques were expected to "trace" an inclination towards crime and fraud, viewed as hidden mental "abnormality."

Historiography confers a crucial role on what was called the "Positive School" (*Scuola Positiva*), founded and presided over by Cesare Lombroso, an Italian psychiatrist of Jewish origin, and his two most well-known students, Raffaele Garofalo and Enrico Ferri. They promoted "criminal anthropology" as a new field that linked criminology, penology, psychology, psychiatry and anthropology. The Italian positivist school became known for minting the phraseology around the "criminal type" (Lombroso) and the "born criminal" (Ferri). The terms designated a devolved ("degenerated") and uncorrectable human being, whose atavistic traits were said to be recognizable by the clinical eye pre-emptively, that is, even before his behaviour revealed such traits.⁹ Thus, Lombroso equated savages,¹⁰ physically and psychologically, with criminals, both defined as semi-animal human beings whose most salient characteristic was their inability to control their (animal, brutal and antisocial) instincts. Despite the fame of his thesis about the born criminal, in their studies Lombroso and his followers took into account different factors in determining delinquency, such as education, climate, local population density and economy.¹¹

Starting in the 1830s, Adolphe Quetelet's social statistics had evidenced certain regularities in the appearance of criminal behaviour within a given population: the numbers pointed to places where delinquency was more frequent and to the months of the year when this behaviour

increased.¹² Such regularities had strengthened the idea among criminologists to think of crime as a natural phenomenon. Additionally, the improving identification techniques exposed the high level of recidivism.

Similarly, Lombroso expected to find a pattern or indicator for the so-called tendency towards crime, mainly based on the physical and mental constitution of the person, once a sufficient amount of detailed anthropometric measurements on each offender and social-statistical data had been gathered. For Lombroso and his followers, criminal or deceitful intentions had to be deduced from “objective and empirical facts,” which were supposed to offer scientific insights into the workings of the criminal mind. Lombroso’s mind reading was based on cranial and facial asymmetries, prognathism, the shape of the ears, the distance between the toes and the person’s sensibility and intelligence.¹³ Bodies were measured, sketched, photographed and displayed. Graphic instruments such as the craniograph produced inscriptions from skulls, their size and form telling the story of the body’s own dangerousness.¹⁴

Sensitivity and muscular force were investigated with techniques some historians have considered as having been close to torture.¹⁵ The anthropological study of tattoos, handwriting and speech, among other signifying patterns, was practised and promoted by Lombroso and his followers. Handwriting was particularly important in distinguishing a born criminal from a lunatic or other kinds of mental alienation such as alcoholism or paralysis (these two illnesses, for example, were supposed to be detectable through tremulous handwriting). Additionally, they collected information about the offender’s personal background, such as age, profession, marriage, place of origin and if he or she was a member of an organized group.

In practice, the interpretation of these registers turned out to be extremely difficult. Researchers had to make sense of a mass of information without clear hints about the way these data were supposed to relate to each other and reveal the causes of criminal behaviours. Becker observed that this was a general problem in the field of criminology in which so many different experts produced more evidence than could be integrated into a specific discursive formation.¹⁶ Nevertheless, Lombroso himself was quick in making sense of collected data, asserting that assassins, for example, were recognizable thanks to their large lower jaws, pale faces, thick black hair and widely spaced cheekbones.

Nowadays Lombroso's work and theories are still of great interest to historians as can be seen by the recently emerging revisionist scholarship¹⁷ and are often used as examples of some of the absurd outcomes of positivist science. For example, the historian David Horn considers Lombroso's voluminous treatise (*L'uomo delinquente*) published 1876 an example of the "messiness of science-in-the-making."¹⁸ Stephen Jay Gould's dismissal is even more severe, calling it "the most ridiculous example of anthropomorphism ever known."¹⁹ But by the end of the nineteenth century, many of Lombroso's contemporaries had already begun to note that his writings displayed contradictions and mistakes. They considered his ideas eccentric and his research curious.²⁰ He received the strongest attacks from French sociologists, especially Gabriel Tarde (1843–1904). Tarde, who followed Durkheim's approach, opposed the biological explanations of crime forwarded by the Italian criminologists. In his anthropological studies, he argued that the psychological tendency of imitation is responsible for human behaviour and, therefore, responsible for criminal acts.²¹ Moreover, he rejected Lombroso's equation of savages with criminals, at least with regard to speech patterns and other anthropological and psychological habits.

At the same time, there is no doubt that Lombroso remains the most influential criminologist who ever lived. Knepper summed up the resulting paradox, asking how the person promoting the most laughable ideas about crime ever published was able to initiate a worldwide movement for the study of criminology.²² To answer this question, Knepper mentions several factors, two of which seem to me the most crucial: first, Lombroso's work is numerous and varied, offering a wealth of inspiring (even if ambiguous and inconsistent) material and theories; thus, there are "multiple Lombrosos,"²³ each with something to say to various audiences. Second, he appealed to the public because he expressed his ideas in dramatic-emotional language and promoted them in a tactile way through exhibitions and museums. His criminal monsters offered splendid material for both the literary and popular imagination. Even his critics who simplified and often even caricaturized his work contributed to his reputation by drawing attention to his theories and conferring upon him the credentials of a founder of a new science. Additionally, Becker observed that Lombroso's style of thought was very appealing because the inclusion of Darwinian concepts was perceived as progressive, and by using this methodology, experts were able to put the blame for the high level of recidivism not on the prison system in particular or criminal policy in

general (which would require a much greater effort and more profound reorientation of values), but on the mental and physical constitution of those deemed to be criminals.²⁴

Under the influence of the Italian criminologists together with French degeneration theory, historians diagnosed a historical development characterized by the scientization of the social, the medicalization of penal law and the naturalization of deviant human behaviour. Criminality was now viewed in connection with mental insanity and degeneration, a condition that could be detected at an early stage, in the form of “abnormality.” Abnormality was supposed to be diagnosed by a professional with medical and anthropological training. New taxonomies linked criminality to mental insanity. The metaphor of the “jurist in white” succinctly expressed the successful penetration of medical and psychological expertise into the courtroom and the conflict that emerged between juridical and clinical competencies (*Entscheidungsmacht*).²⁵

I will start by presenting the studies developed at the first laboratory of criminology in Madrid and the studies undertaken by its director, Rafael Salillas y Panzano (1854–1923) during the last decade of the nineteenth century. Salillas became one of the most active, original and prestigious experts, promoting criminology as a psychological and anthropological science.²⁶ He was well connected within the international network and highly acknowledged domestically and abroad. For example, Lombroso himself cited his work, and in 1906 he was named honorary president of the fourth International Conference on Criminal Anthropology in Turin.

Furthermore, I will take a look at the first Spanish textbook on juridical psychology (1932), authored by the psychiatrist and psychologist Emilio Mira y López (1896–1964) and widely read among jurists. It offers some insights into the current techniques employed in both court and prison for reading the minds of offenders and suspects. Additionally, the 1945s edition included an original personality test, proposed by Mira for measuring any person’s hidden criminal tendencies. The works of Salillas and Mira represent crucial landmarks in the history of criminology and juridical psychology in Spain. At the same time, they are only a small part of the work undertaken at the time.²⁷

The techniques I deal with in my research are based on the psychological examination of the individual criminal body as well as the study of the verbal expression of a “social (criminal) body,” a term I use to refer to Salillas’ study of marginalized groups. Despite their differences, the joint analysis of these two Spanish authors, Salillas and Mira, is justified by the

similarities in their epistemological approach. They were both physicians working at university and, I will argue, heirs of the new scientific project originally called “criminal anthropology,” which had earlier been practised by the Italian positivists. Their mind reading techniques were based on a materialist-biologist view of the mind-body relation. Their political agendas were in line with a progressive and socialist ideology²⁸ envisaged by intellectuals who sought to reform and modernize Spanish society. In their historical setting, Salillas and Mira opposed a conservative-Catholic tutelage, based on the theory of free will and a purely moral interpretation of human behaviour, which was still widespread in Spain throughout the nineteenth century and the first half of the twentieth.

TECHNIQUES OF MIND READING IN EARLY CRIMINOLOGY

Anthropometry of the Criminal Body

For the Spanish context, historians of medicine have insisted on the key role the work of the Italian positivists played in setting an agenda for technical and empirical research on crime and the criminal.²⁹ After the liberal revolution of 1868, positivist science and republican ideas had started to agitate debates among Spanish scholars. Between 1880 and 1910 the works of the Italian criminologists, together with French degeneration theory, had a strong influence, profoundly shaping juridical-legal reform.³⁰ Politically, the reformers were republicans, entertaining liberal and democratic ideals, or even socialists. Among this group was the jurist and pedagogue Francisco Giner de los Rios, the psychiatrist and neurologist Luis Simarro (a colleague of Ramon y Cajal) and their disciples and co-workers, namely Salillas and the jurist Pedro Garcia Dorado Montero, to mention the most important. They were linked to the krausist philosophy and correctionalist penology³¹ as promoted by the *Institución Libre de Enseñanza* in Madrid.

In 1888 Salillas held a famous talk at the *Ateneo Científico, Literario y Artístico* in Madrid in which he underlined the need to acknowledge the contributions of the Italian criminologists and their thesis about the biological determinism of criminal behaviour.³² In order to gain scientific knowledge about the criminal, Salillas insisted on the need to develop “criminal psychology,” aimed at the study of the offender’s psychological characteristics, motives and way of life. In his opinion, this was the only way to distinguish, on scientific grounds, to what extent behaviour had

taken place freely or been urged by an inner (biological) need or exterior (social) influences.

His talk triggered intense debates among intellectuals, which soon would be enhanced by the public confrontation of psychiatrists against lawyers and theologists in the public press when discussing the judgement of sensationalistic criminal cases.³³ Forensic expert reports in court trials of that time point out and describe craniums, ears and other physical signs or stigmas of the degenerateness of criminal suspects.³⁴ At this time, Salillas gained the nickname “little Lombroso”³⁵ and successfully promoted the creation of the first public juridical psychiatric clinic in Spain.³⁶ Maristany has underlined the cautious appropriation of Lombroso’s work by Spanish psychiatrists: on the one hand, they did not embrace fully his theories as they seemed too radical, but on the other, they eagerly incorporated the new vocabulary, his “modern” methods and the new role of the physician as “master” or assessor of jurisdiction.³⁷

In 1899 Salillas was put in charge of the first and newly created laboratory for criminology, linked to Giner’s professorship in Philosophy of Law at Madrid University. There he and his colleagues³⁸ would undertake research and read the works of the Italian criminologists, which they studied with a critical eye, conscious that Lombroso’s empirical exploration of the criminal body consisted in a rather chaotic and frenetic collection of empirical data. Summarizing the thoughts of his father, Gina Lombroso herself had tried to justify the investment of collecting a wealth of anatomical and personal characteristics, referring to the complexity of the distinction between the criminal human type and the normal citizen and thus the need for as much information gathering as possible. The diagnosis could not rely on one atavist stigma or salient feature but implied a quantitative accumulation of symptoms because Lombroso wrote, “[i]n normal individuals we never find that accumulation of physical, psychic, functional, skeletal anomalies in one and the same person.”³⁹ Thus, despite the unequal value of characteristics, Lombroso adopted an accumulative (quantitative/statistical) strategy to distinguish the “normal” from the “abnormal”: the more particular (deviant) characteristics the examined body exhibited, the higher or stronger would be the mental disposition of this person to commit crime. Thus, the wealth of collected empirical material was viewed as more useful pieces for the construction of scientific (i.e. objective and durable) criminological knowledge than the traditional (metaphysical) discourses on human differences and morals in former juridical treatises.

Salillas thought that this was a reasonable procedure. He profusely cited Lombroso's and his followers' registers, although he never undertook such anthropometric measurements himself. For him, with criminology as a new-born science without any previous systematic empirical research or knowledge, this was the only way to gather reliable information about the phenomenon of the criminal act. He described the process, metaphorically, as a search for lost objects. It was a way to look desperately for clues, which he expected to appear:

in the outer habit, in the organic conformations, in the functional modes, in the centres and in the conductors of sensitivity and affectivity, in the word, in the writing, in the revealing and expressive countenance, in the attitudes, in all traces of life imprinted in one act, in all the characters of the organic history that turn the anatomical amphitheatre into a library, the scalpel into a leaf cutter and the corpse into a book.⁴⁰

Thus, despite the sounded criticisms, Lombroso's differential psychology proved to be inspiring and instrumental in the hand of Spanish positivist psychiatrists such as Salillas and his colleagues at the *Institución Libre* who wanted to expand the domain of their academic field by introducing the new science of criminology, a science that would help them to pursue a reformist and socialist political agenda for their country.

Deciphering the 'Social Body': The Vocabulary of the Mischievous Mind

Criminal tendency was also studied collectively. Anthropologists and criminologists of the nineteenth century believed in the existence of an intimate relationship between a society and its language. Oral (and written) language was supposed to exhibit the sociological, psychological and philological properties of the community and could, therefore, be analysed for mind reading.

Lombroso was interested in criminal organizations and their speech habits, the jargons used among their members.⁴¹ He observed that their communication differed mainly in vocabulary. They altered the meanings of words and invented onomatopoeias such as "tuff" for a pistol and "tic" for watch. Sometimes, an object received its name from one of its attributes, such as "jumper" for a kid. For Lombroso, the reason for introducing such new words and semantic transformations was the delinquents' attempt to elude police investigation. Additionally, he considered

the jargon of delinquents to be similar to primitive languages, that is, the way humans communicated in prehistoric times. Such a view fitted with his equation of criminals (especially assassins) with savages, already mentioned above.

Salillas did similar anthropological studies on marginalized and criminal groups living in Spain, namely Romani people (then called “gypsies”) and groups of bandits.⁴² Like Lombroso his research was based on the idea that there exists a correspondence between social life and the functioning of the criminal mind. First, he confirmed some of Lombroso’s observations about criminal jargon, such as the predominance of onomatopoeias and the great number of lexical substitutions. Moreover, he found among these substitutions many expressions based on sensorial (visual) representations and personifications of inanimate objects. Instead of considering them as versions of primitive (prehistoric) languages as Lombroso did, Salillas sided with Tarde in considering the criminals’ jargons as derived from “ordinary” language.⁴³

The main idea of Salillas’ collective psychology was that the “confraternal personality evidences itself through their own words which characterize feelings and qualities, indicating preferences, disgust or mockery.”⁴⁴ Thus, he registered the specific terms and expressions used by groups of delinquents, trying to find out their meanings and historical-philological origins. Nevertheless, it is important to note that many examples listed in his book were extracted from Spanish literature. Apart from some visits to prisons, Salillas seemed to have learned more about the criminal way of life by consulting popular books of Spain’s “siglo de oro” tradition, such as *Don Quijote de la Mancha* by Miguel de Cervantes (1605) and *Guzmán de Alfarache* written by Mateo Alemán (1599). The latter stands out for its use of the Spanish literary style called the “novela picaresca.”

Alemán’s book narrates the life of a miserable young man of extremely modest origins and the fortunes and misfortunes he encounters within a spiteful social environment. Thereby, he gives a psychological and anthropological insight into the life of this “poor swindler” (“humilde pícaro”), a perfect anti-hero figure. His life exhibits no moral values and no sense but represents just an epic wandering driven by hunger. Within a miserable and brutal world, he can survive only through fraud and deception. As the protagonist moves through the underworld and consorts with groups of bandits, the book includes plenty of vulgar expressions and jargons used by these groups in Spain.

As an example of specific words, Salillas presents the expression “*rufián*,” meaning a man that dominates others and takes advantage of his position in a dishonest or abusive way.⁴⁵ Among various lexical transformations, he identified the word “*caida*,” which for the criminal meant offending someone,⁴⁶ while in ordinary language it is simply “the fall” (the noun of “to fall”); the word “shamelessness” was exchanged for “serenity”; cleverness was called “*chanza*” (a word meaning literally jokes or fun); and for mockery or cheating they used the expression “*tiro*” (which means “shot”). Finally, one of the most notorious changes was “white” referred to someone naïf and stupid, while the skilful and clever were called “black.”⁴⁷

For some words, Salillas was able to theorize about the reasons for the substitutions. For example, in the case of “black” the word refers to something dark, occult, hidden. It evidences that these people appreciate delusions and delinquent (hidden) actions. Moreover, the dichotomous categories of black and white divide the members of society into two groups: those who cheat and those who are cheated.⁴⁸ In this way, the vocabulary expresses, following the Spanish criminologist, the mischievousness (*picardía*) and satisfaction these people feel when they manage to cozen someone.

Salillas observed that “the specific [verbal] expressions expose in a condensed way all the mischievousness (*picardía*) of this social group.”⁴⁹ He considered such word-constellations as black–white as a “psychological nucleus,” evidencing the affective modality of the group whose life rests on delinquency and crime. He supposed that these people, lacking moral consciousness, even enjoyed committing frauds and crimes.⁵⁰ Depending on the crime, he divided them into three groups: the “manualists” (specialized in stealing), the extortionists and the “suggestionists” (who cheat on other people). Nevertheless, his psycho-philological analysis did not imply a clear demarcation or opposition between the delinquent character of marginalized groups and that of the members of “ordinary society”; neither did he mark any difference between the Spanish way of life of the sixteenth century and that of the nineteenth.

In his later works, Salillas would develop his psycho-philological analysis further. He now called his approach “nomad psychology” resulting in psycho-sociological studies on nomads (“gypsies,” bandits and “*pícaros*”).⁵¹ He grouped them together under the name of “*hampa*,” an idiosyncratic Spanish expression referring to groups exhibiting nomadic as well as “parasitic” behaviour. His psychology consisted in equalizations,

considering “*hampa*” equal to “gypsiness,” and to parasitism, criminality and nomadism as well. Nevertheless, the behaviour of the *hampa* was not exclusive to bandit groups and “gypsies” but could be, on a lower level, found throughout Spanish society at large. Thus, he told his fellow countrymen that the “hampa behaviour” reveals “our own constitutional way of being.”⁵²

He was especially keen on pointing out other socially parasitic (but non-criminal) groups, such as aristocrats, wandering students (*tuna*), military personnel and representatives of the Catholic Church,⁵³ all groups that made their living demanding a share of the material resources produced by others through hard work (in agriculture or industry). At the same time, *hampa*-delinquents troubled the life and property of sedentary citizens. Most of them were citizens working in the countryside or in the factories, viewed by Salillas as the “pillars” of society. His psychological analysis included strong criticism to various social groups, including the way the state administration and official institutions worked, very much in line with denunciations voiced by other authors at that time, such as the prison guard Concepción Arenal (1896).⁵⁴

Salillas’ negative description of bandits overlapped partially with that of Ferri’s, and for Ferri carelessness (“*imprevoyance*”) and vanity were the two dominant characteristics of the criminal.⁵⁵ Lombroso’s description of “gypsies” was even more negative. In his “Criminal man” he declared them: “an entire race of criminals with all the passions and vices common to delinquent types: idleness, ignorance, impetuous fury, vanity, love for orgies, and ferocity.”⁵⁶ Historically, this bigotry was not new. Across Europe, the criminalization of ethnic groups such as gypsies merely continued a long tradition of racism and xenophobia. In encyclopaedias of the eighteenth century, such as Zedler’s (1731/1754), gypsies were described as lazy and sly (*durchtrieben*) people. It was believed that in any given population of gypsies there thrived plenty of “thieves, assassins, rogues (*Spitzbuben*), and other varieties of scum” (*loses Gesindel*).⁵⁷

Despite the similarities in the descriptions, the causal explanation of criminal and delinquent behaviour varied. Salillas demarcated his point of view from those of others, defining Quetelet’s work as sociological, Morell’s approach as psychiatric and the contributions of the Italian positivists (Lombroso, Ferri and Garofalo) as anthropological. In contrast, he defined his own point of view as psychological and followed the socialist political orientation, close to the early ideology of Ferri and the criminologist Napoleón Colajanni. Colajanni became a strong defender of

the idea that social conditions either directly or indirectly caused most crimes.⁵⁸ Thus, Salillas considered groups such as “gypsies” and bandits to be composed of humans suffering physio-psychological problems. He attributed their behaviour not to some atavistic traits but to the unstable (nomad) way of life, a life that was mainly characterized by poverty, which meant, above all, suffering hunger. In the long run, the lack of nutrition would cause neurasthenic exhaustion and a hereditary injury in the form of degeneration. Psychological traits such as carelessness, indifference, and mischievousness were signs of an underlying “biological principle that states that the evolution of personality is really the evolution of nutrition.”⁵⁹

Spain in the nineteenth century still constituted a country in which hunger and bad nutrition were clearly predominant features in the life of many citizens living under the old regime in the countryside or in the impoverished neighbourhoods of industrializing cities. Human beings living under these circumstances were compelled to fight for their existence. Through what the upper classes viewed as criminal behaviour, was often a desperate attempt to arrive at vital resources at any cost.

MANAGING CRIMINALITY THROUGH JURIDICAL PSYCHOLOGY

Techniques of Bodily Mind Reading in Mira's Textbook on Juridical Psychology (1932)

The author of the first textbook on juridical psychology published in Spain was the well-known Catalan psychologist Emilio Mira y López (1896–1964), a member of the Barcelonian Biological School led by Ramón Turró and August Pi-Sunyer. As a physician working for the municipality of Barcelona, he soon got to know the miserable living conditions in the outskirts of the city. This experience led him to advocate applied science (i.e. a science aimed primarily at improving the living conditions of the citizens). He organized hygiene campaigns and supported the left-wing party *Partit Socialista Unificat de Catalunya*.⁶⁰ He worked as a professor of psychiatry at the University of Barcelona and became a well-known expert in applied psychology, more precisely in psychotherapy, psychopedagogy and psychotechnics. The latter kind of psychology, together with anthropometry, was intensively practised at the Institute for Professional Guidance of Barcelona, an institution he had worked at since

1919 and then directed between 1926 and 1938. During that period, he gave lectures on psychology at the faculty of law at the University of Barcelona. After several semesters, he decided to publish his collected lectures as a *Textbook of Juridical Psychology* (1932).

In the first pages of his textbook, Mira established a demarcation between “philosophical psychology” and “scientific psychology,” the latter being “a science that offers at least the same guarantees of seriousness and efficiency as the rest of biological disciplines”⁶¹ (Mira 1945, p. 7). Scientific psychology observes and experiments with the “psychic phenomena,” understood as: “the group of facts that constitute, subjectively, our internal experience and which are considered from an objective point of view as manifestations of the global functioning of the human organism, or, stated differently, as actions performed by a person.”⁶² Mira’s holistic and inclusive approach needed the combination of different methods to study the complexity of the human being, understood as a “psychobiosocial being.”⁶³

Already in his definition, the primacy of the positive scientific aspiration of his undertaking becomes clear and was based on an objective psychology, approaching the study of subjectivity through the body. Mira called this methodological approach “extrospection,” literally: “looking (inside) from the outside.” Contrary to “introspection,” it was defined as an “objective study” of human actions on three levels: verbal, muscular and glandular.

As a psychiatrist, Mira used for the assessment of innate or fixed behavioural characteristics and inclinations Kretschmer’s bio-typology,⁶⁴ which assumed that a person’s bodily constitution would predispose them towards a certain “temperamental reaction.” Thus, Mira declared: “most human beings are variants of the ‘normotype’”⁶⁵ and therefore could be classified in one of four categories: (a) asthenic (thin, small, weak); (b) athletic (muscular, large-boned); (c) pyknic (stocky, fat); and (d) dysplastic (bodily disproportionate). By examining the bodily structure of a person and attributing it to one of these types, it was also possible to appreciate criminal tendencies. Following Mira, it was through the body constitution, “that dangerousness and the different asocial and antilegal tendencies achieved their primal expression.”⁶⁶

In the field of criminology and juridical psychology assuring true testimonies and detecting deception were important issues. A physiopsychological technique expected to offer some support in this task was

the study of momentary psychological reactions registering a psychic disturbance on regular bodily functions or actions. Mira mentioned in his textbook the registering of a sudden disturbance in regular bodily functions such as blood pressure, breathing and the galvanic reflex as a sign of emotional reactions taking place during the hearing of a list of words (the Jung-Abraham-Rosanoff word-association test). He also advocated the use of lie detectors based on a combination of several such registers.⁶⁷

The method was not new. The technique of registering changes in the physiological recording for detecting deception during interrogation had been used in criminology since the nineteenth century. An instrument used for this purpose was the “volumetric glove,” a plethysmograph measuring changes in blood pressure in the hand. It was used by Lombroso, Ferri and other criminologists in the 1880s to determine the participation of individuals suspected of theft.⁶⁸

The historian and philosopher of science Cornelius Borck has explored the way the plethysmograph was used in the nineteenth century as a graphical method measuring blood volume changes in relation to psychic processes, such as pain, pleasure, touching, hearing and mental arithmetic.⁶⁹ Paraphrasing the logic of the experiments undertaken by the German neurologist Hans Berger in the 1920s, Borck observed: “the physiologically inexplicable and yet correctly recorded trace gave evidence of extraphysiological causation.”⁷⁰ Borck explained the reason why Berger assumed such a paradoxical logic by referring to his dualist mind-body conception. Berger became obsessed (*idée fixe*) with psychic activity expressing itself in the form of disturbances within perfectly regular physiological recordings. Nevertheless, the use of the technique in the hands of Lombroso and his followers in the nineteenth century, as well as later similar lie detector procedures advocated by Mira and others in the twentieth century, shows that the interpretation of graphically registered disturbances as attributable to emotional reactions was not limited to scientists adopting a dualist stance. It fitted also with a holistic and materialist approach, interpreting bodily reactions as occurring parallel to inner mental processes.

A similar, alternative way to prove the level of sincerity of the testimonies included in Mira’s textbook was a technique based on recording a series of muscular movements. It had been developed by the Russian psychologist Alexander R. Luria (Алекс’андр Л’урия, 1902–1977). The

subject had to execute a regular, rhythmic movement up and down, tapping with one finger of the right hand on a pneumatic membrane (connected to a Marey drum). Using this method, a “motor expression” is obtained which adopts the form of regular curves (similar to waves) (Luria 1929, 1932).⁷¹ His experiments using the word-association method evidenced the sensitivity of this technique to register a psychological disturbance which appears when subjects try to inhibit their immediate verbal reaction. In this case, the curve would become irregular.

Inspired by Luria’s method, Mira developed a technique with the help of a graphic device he invented, called a “monotonometer” (“monotonómetro”). The subject was asked to take a pencil and begin, from left to right across a sheet of paper, a continuous line-drawing up and down within a vertical span of eight centimetres, following the tick-tock of a metronome (see Fig. 9.1).

Fig. 9.1 Mira’s monotonometer (*Source* Emilio Mira y López, *Manual de Psicología jurídica*, 2a ed. [Buenos Aires: El Ateneo, 1945], p. 171)

After one minute, while the area limits were removed and the metronome was stopped, the subject was asked to go on repeating her own movements, as regularly and monotonously as possible. Meanwhile, the subject (sometimes these were suspects) had to sincerely answer various questions without stopping or altering the regularity of her line-drawing. But certain questions were expected to trigger some emotional reaction, producing a disturbance in the pattern (see the shortening of the tracings on the right part in Fig. 9.2 graph B) if the individual had something to hide.

For Mira the great advantage of his method was the fact that it worked even if the subject tried to hide their emotional reaction. In this case, he explained, “it is a proven fact that [...] the intervention of the will in the performance of automatic movements will only result in disturbing them.”⁷²

Fig. 9.2 Two patterns registered with the help of the monotonometer (*Source* Mira 1945, p. 174)

Muscular In-Tensions: Criminological Uses of Mira's Personality Test

In 1935, at the Institute for Professional Guidance, Mira started to experiment with muscular movements with the aim of designing a personality test, based on his experiences with different psychotechnical methods such as the already mentioned monotonometer and an instrument called “*axiestereómetro*” he developed during the Civil War to measure spatial orientation of pilots. When Franco's troops entered Barcelona in January 1939, he went into exile, first to France and then to London, where he stayed for a short period of time after the psychiatrist Charles Myers managed to raise sufficient funding for him. Finding himself in such a difficult situation, he worked hard to get his new personality test published. When the second edition of his textbook appeared in 1945, it included his personality test, thus promoting its use in the fields of forensic medicine and criminology.

The so-called Myokinetic Test⁷³ relied on the idea that “every [reaction from a] ‘mental attitude’ is accompanied by a certain ‘muscular attitude’” and “every *intention* corresponds to a change in muscular tone, tending towards the realization of the intended reactions while, at the same time, inhibiting the contrary ones.”⁷⁴ The procedure consisted of a person sitting and tracing with a pencil a line already drawn on a sheet of paper and doing so repeatedly, without pausing or resting the hand (see Fig. 9.3). The instruction started with: “We are going to explore the precision and security of your movements in order to deduce from them the state of your nervous system.”⁷⁵ At first, the experimental subject could look at his or her own tracings. After several ups and downs, the experimenter put a piece of cardboard before the face to block the subject's visual control. Thus, the tracings usually start to deviate from the original pattern (see Figs. 9.4a, b, c and 9.5a, b, c). Mira studied the direction of these deviations and thereby deduced different personality traits, such as aggressiveness towards the self or others, intra-tension and extra-tension, and being energetic (elated) or weak (depressed). The non-dominant hand was supposed to express the deeply habitual tendency (also called his or her “constitutional attitude”), while the dominant expressed his or her current tendency.

In his textbook, Mira presented his test as a new technique able to determine the dangerousness of a person. It offers, he stated, “with the help of a simple and quick technique, the possibility to obtain an objective criterion not only of the current aggressiveness of any person, but also his

Fig. 9.3 An experimental subject doing the PMK test (© Annette Mülberger)

Fig. 9.4 Lineogram of the PMK test. **a** pattern sheet. **b** tracings of a “normal” and psychologically balanced person. **c** a mentally ill person of 43 years who had killed one person and attempted to kill another (*Source* **a** Archive for History of Psychology at the Universitat Autònoma de Barcelona, picture taken by Annette Mülberger. **b** Mira [1945, p. 303]. **c** Mira [1945, p. 317])

Fig. 9.5 Zig-Zag-lining of the PMK test. **a** pattern sheet. **b** an adult with high educational level (“elite personality”). **c** a schizophrenic patient (*Source a* Archive for History of Psychology at the Universitat Autònoma de Barcelona, picture taken by Annette Mülberger. *b* Mira [1945, p. 99]. *c* Mira [1945, p. 109])

or her potential aggressiveness, [...] whether mentally ill or supposedly normal.”⁷⁶ The level of potential aggressiveness was measured through the angle and size of the deviation towards the front on the sagittal plane of the non-dominant hand. The same deviation on the other hand would indicate the current level of aggressiveness.⁷⁷ Thus, he stated: “The danger of hyper aggressiveness will be greater the more intense the egocentric deviation observed in both hands.”⁷⁸ Moreover, uncontrolled drives, typical of passionate criminals and “vicious addicts”, would also be detectable through the test, more precisely through the irregularity of the length and strength of the tracings.

Mira based his diagnostic on a great number of parameters (primary and secondary deviations, the measurement of length and angles of inclination of each tracing, etc.; see Mira 1979). Among other subjects, he examined with his test sixteen convicted murderers in Cordoba, Argentina to measure the deviation of their tracings.⁷⁹

On the whole, the personality test was relatively successful in the highly competitive market of psychological testing at the time. It was translated into several languages, such as English, Spanish, German and French,⁸⁰ and was promoted and commented on by Pertejo (1943) and others. For decades it became part of the standard psychological testing for obtaining a driver’s licence in Brazil (Muñoz 2002).

Nevertheless, it was probably not much employed in the field of criminology and jurisdiction because, contrary to his own presentation, the test was technically rather sophisticated. Apart from the lineogram and the Zig-Zag-lining, the test included additional sheets with different forms (circles, Us, etc.). It also required the use of specific furniture, as well as a considerable portion of patience and expertise. It took at least two sessions to perform all the tracings. After that, the examiner had to undertake detailed measurements of the different lengths and the grade of inclination of the tracings and laborious calculations to get indexes. To deduce a psychodiagnostic based on these indicators was not an easy task.

FINAL DISCUSSION: READING CRIMINAL PROPENSITY THROUGH BODILY CHARACTERISTICS AND ACTIONS

Encouraged by Comtes' positivist aspiration for science to predict and "foresee," and after obtaining social statistics about the high rates of recidivism, positivist psychiatrists and criminologists in the nineteenth century turned their attention towards prevention. Within a civil society increasingly obsessed with security⁸¹ their aim was to protect law-abiding citizens by assessing the threat of dangerous traits deemed to be prevalent among certain individuals. This implied a turn towards the search for empirical (scientific) facts expected to aid in the judgement of a person's tendency towards delinquency and crime.

How can the psychological characteristic of a behavioural tendency towards crime be scientifically determined? Questioning the subject directly was unfeasible because any given "suspect" was expected to dissemble or cheat. Techniques of mind reading were based on a distrust in the sincerity of the speech acts of criminals. The expectation of being deceived made interrogating the subjectivity of the experimental subject, via verbal communication or introspection, seem futile and misleading.⁸² Spoken words in personal conversation were supposed to be under conscious control and could therefore be easily manipulated, while bodily traits and actions (including tracing and verbal habits), on the other hand, were supposed to offer useful clues into the hidden intentions of the criminal mind. The body would confess what the mouth would not.

Thus, Lombroso's and other criminologists' mind reading techniques that have been mentioned in the present study were mainly practised through a "psychological reading" of the body. Anatomical characteristics and bodily expressions were frenetically noted, measured and fixed.

The observations were often based on anthropometrical measures taken on the “docile bodies” of prison inmates, and corpses.⁸³ As can be seen through our research on Salillas and Mira, on the living body, additional qualitative observations about movements and actions such as speech and line-drawing were considered of key interest. Thus, the criminologist and the psychologist contributed to the social construction of a moralized body, a disciplined body whose actions were psychologically and morally judged.

Researchers working in Spain such as Salillas felt inspired by Lombroso and other Italian positivists and were excited by the project of establishing a professional field of criminology in Spain, as a new (progressive) science. Salillas and his colleagues used profusely degenerationist and Lombrosian terms to evaluate the dangerousness of offenders. At the same time, they were critical. Lombroso’s effort to collect a mass of empirical data did not blind them towards the erratic way their predecessor pursued his research and drew his conclusions. Nor did they accept, for example, the equation of the modern criminal with the savage or prehistoric human.⁸⁴ In this respect, they agreed with French sociologists of the time, such as Tarde.

Both Salillas and Mira attempted to expand medical science while reducing the dominance of the Catholic Church and the scholastic credo of free will in the field of jurisprudence. Thus, politically they represented the most radical and left-wing (socialist) medical sector. Salillas wanted to introduce to Spain criminology as psychological science, offering an empirical basis for legal reform and fostering the creation of juridical psychiatric clinics. It was precisely the production of “the criminal body,” as an object of knowledge dependent on technical registers and mathematical calculations that allowed the reconfiguration of criminology as a scientific undertaking. Imbued by positivist faith, knowledge obtained through this new anthropological and psychological practice was considered to be prejudice-free and, therefore, superior to the metaphysical discourses of traditional legal documents.

Following a similar trend, Mira fostered a field called “juridical psychology,” through which he wanted to expand the domain of his scientific field, psychology, and prove its usefulness for society, mainly within juridical and criminological practice. As mentioned above, both Salillas and Mira adopted a materialist stance, dealing with criminality understood as a global psychological phenomenon which expresses itself through individual and social “ways of being” and can be objectively delineated by examining the body and its actions.

Regarding the question of which bodily characteristics and actions were considered useful hints for evaluating the psychological propensity for criminal or deceptive behaviour, we can now answer that they were, basically, of two types: a persistent innate disposition and a current (emotional) reaction. In the first group anatomical characteristics, verbal behaviour and muscular movements constituted three ways to analyse the mind, while in the second group variables such as variations in blood pressure, volume and tension as well as breathing and the psychogalvanic reflex were considered revealing. Again, in this second group, muscular movements played a crucial role.

In general, the criminological techniques of mind reading represent a kind of differential psychology aimed at detecting deceptive testimony, mischievousness, aggressiveness and other behaviour considered dangerous and antisocial. Nevertheless, Lombroso's approach shows that "normality" and "abnormality" were not divided into dichotomous or antagonistic categories, but vaguely defined through a quantitative accumulation of anatomical symptoms, anthropological characteristics and deviations in manual performance.

Salillas developed his research on mind reading by collecting typical expressions used by marginalized groups in Spain, namely gypsies and bandits. He detected some idiosyncratic expressions commonly used by them, explaining their meaning on two levels: What they immediately signified and what the use of such expressions revealed about that culture's mental and social life. He viewed marginalized groups composed of mischievous and careless people, whose way of being was determined by their way of life characterized by nomadism and poverty.

Becker listed four factors considered as causes for criminality at that time: accidents during gestation, social environment, inheritance and alcoholism or other illnesses such as syphilis.⁸⁵ Thus, Salillas' perspective seems a curious strategy, in attributing criminality to the nomad way of life that was expected to cause in the body a biological deficit in nutrition, which would be responsible for a psychological state of mind urging criminal behaviour. Salillas' psychological reflections on the origin of criminality were often considered by some of his contemporaries, such as Dorado Montero, as complex and vague, but, at the same time, also very original and profound.⁸⁶

Contrary to other criminologists, he did not present "gypsies" and groups of bandits as a counter-society, opposed to the world of law-abiding citizens. In his view, all Spanish people have a certain tendency

towards developing the key *hampa*-characteristic, namely mischievousness (*picardía*). Due to the nomadic way of life, among certain groups the criminal and morbid tendency of mischievousness would appear more strongly and frequently than within members of ordinary society. On a social level, he made a sharp differentiation between productive workers (farmers, industrial labour, artisans, etc.) and “parasite citizens” (a differentiation which implied a social critique of the aristocracy, the clergy, the military, wandering students, bandits and other social groups).

Thus, Salillas’ critical attitude towards Spanish society is connected to a general uneasiness with regard to their own country and culture that had spread among intellectuals towards the end of the nineteenth century. The political crisis provoked by the loss of Spain’s last colonies overseas, induced a pessimistic view⁸⁷ and a revival of social critique that had already been outlined already centuries before in the “novela picaresca.”

In the work of Mira in the 1930s, on the contrary, bodily constitution and regularity of physical movements would be the criteria for evaluating pathological propensities or deceptive mental states. In the 1940s Mira developed his personality test and promoted its use in the field of criminology. His contribution would occur several decades later than Salillas’, at a time when the industrialization of cities such as Barcelona was underway. That contribution included the detection of a violent attitude (aggressiveness towards other persons) on two levels, as a persistent trait and as current disposition (depending on the hand used). Thus, deviance would no longer be detected in the use of slang and coded idioms (Salillas) but in a sudden irregularity in line-tracings and in the erratic tracing of markings in Mira’s Miokinetic Psychodiagnostic Test (PMK).

It is easy to see in Luria’s tapping, Mira’s monometric measurement and the PMK the influence of the taylorist management of industrial labour implemented at the time. Thanks to his work as psychotechnician at the Institute for Professional Guidance in Barcelona Mira knew these procedures well. Just like in Lombroso’s and others’ analyses of handwriting, regularity was highly valued. The more the individual was able to expose his or her inner nature through regular (controlled) and precise muscular movements, the more useful this person would be as a machine-like worker, adapted to the production pace at any factory.

Thus, the tendency towards violent behaviour would be confessed by the “in-tensions” of the hands. The hand was at that time still an essential tool not only for daily work but also for crime, be this in the form of theft, smuggling, cheating or cruel violence. Male violence (including

attacks) would be based on the use of knives, pistols and hand-bombs. A regular, mechanical person constituted an entity whose reactions could be foreseen, regulated, adjusted and, above all, controlled. It was a useful piece in a productive society. The measurement of regularity and preciseness in human reaction actually had started before, with the reaction-time experiments by astronomers in the nineteenth century.

To the question concerning the reasons why certain anthropological, clinical and psychological techniques were developed and adopted by scientists, the standard literature in the history of medicine refers to power dynamics among social groups within a divided society. Following the Foucauldian tradition, historians of medicine such as Álvarez-Úria, Campos, Martínez-Pérez, and Huertas attributed to Spanish psychiatrists and criminologists a hidden agenda.⁸⁸ At a time of social unrest, they argued, it consisted of taking advantage of their social status for developing criminological techniques that would be instrumental in controlling and subordinating members of the dangerous working class. They were said to have done this using mainly two interrelated strategies: a tutelage via the medicalization of society and a systematic pathologization of “the other,” that is, the criminal (including the disobedient worker).

Among historians of psychology, Foucault’s interpretation gave rise to a considerable number of genealogical studies on the management of subjectivity in contemporary society. Within this tradition, Nikolas Rose’s *Governing the Soul* (1990) outlined the increasingly key role psy-sciences played throughout the twentieth century for the management of the self. Governmentality, he argues, needs social statistics and psychological technology to control citizens’ behaviour. By this means, the necessary calculations are obtained through a process of inscription, which translates crime, delinquency, insanity and pauperism into tables, graphs and other material traces. In liberal democracies, the government acts at a distance or indirectly, operating through what Rose calls “techniques of the self.”⁸⁹ Nevertheless, the techniques used in the criminologist works cited here were not “techniques of the self” in Rose’s sense of the term, which referred to “the elaboration of certain techniques for the conduct of one’s relation with oneself”⁹⁰; rather, these early criminological techniques “inscribed” the psychological trait of deceit or criminality into the human body of the “other”.

Finally, as Pettit has rightly pointed out, psychologists demanded full transparency from the interrogated, while psychologists had their own

hidden motives.⁹¹ The procedure evidences a main problem most psychological interventions have with not informing the experimental subject about the real aim of the assessment, nor the way his or her actions will be interpreted or classified.

Thus, the techniques of mind reading in the field of criminological practice reviewed here were based on the hypothesis of mutual distrust: the scientist expected the mischievous mind of the delinquent to cheat and, therefore, felt legitimized in cheating his own subjects. As outlined above, the scientist ignored the suspect's speech (subjectivity) but examined exclusively his or her body. This would only work if two assumptions were accepted: (a) that keeping the mind focused on speech or impairing vision, this would enable the suspect to control his or her body movements; and (b) that these uncontrolled body movements would give hints with regard to personality traits, hidden intentions and the current or latent level of aggressiveness. In this sense, the Miokinetic Psychodiagnostic Test (PMK), as psychological assessment, acquired a nearly symbolic meaning: subjects blinded by the experimenter, trying to follow the line (with their drawing), while the body's "natural in-tensions" were taking them astray (out of the marked line).

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NOTES

1. Nikolas Rose, *Governing the Soul: The Shaping of the Private Self* (London: Free Association Books, 1999).
2. Michael Shortland, "Skin Deep: Barthes, Lavater and the Legible Body," *Economy and Society* 14, no. 3 (1985): 273–312; Nicole Rafter, "The Murderous Dutch Fiddler: Criminology, History and the Problem of Phrenology," *Theoretical Criminology* 9, no. 1 (2005): 65–96; Michael M. Sokal, "Practical Phrenology as Psychological Counseling in the 19th-Century United States," in *The Transformation of Psychology: Influences of 19th Century Philosophy, Technology, and Natural Science*, ed. Christopher D. Green, Marlene Shore, and Thomas Teo (New York: American Psychological Association, 2001), 21–44.

3. See, for example, Peter Becker and Richard F. Wetzell, eds., *Criminals and Their Scientists: The History of Criminology in International Perspective* (Cambridge: Cambridge University Press, 2006); Tom Daems, "On the Origins of Criminology," *European Journal of Crime, Criminal Law and Criminal Justice* 14, no. 1 (2006): 115–125; David Arthur Jones, *History of Criminology: A Philosophical Perspective* (New York: Greenwood Press, 1986); Paul Lawrence, "The Historiography of Crime and Criminal Justice," in *The Oxford Handbook of the History of Crime and Criminal Justice*, ed. Paul Knepper and Anja Johansen (New York: Oxford University Press, 2016), 17–37; Ruth Ann Triplett, *The Handbook of the History and Philosophy of Criminology* (Hoboken: Wiley, 2018).
4. See, for example, Curt Bartol and Anne-M. Bartol, "History of Forensic Psychology," in *The Handbook of Forensic Psychology*, ed. Allen K. Hess and Irving B. Weiner (New York: Wiley, 1999), 3–23; Annette Mülberger, "Teaching Psychology to Jurists: Initiatives and Reactions Prior to World War I," *History of Psychology* 12, no. 2 (2009): 60–86; Heather Wolffram, *Forensic Psychology in German-Speaking Europe: Witnessing Crime, 1880–1939*, 1st ed. (Cham: Palgrave Macmillan, 2018).
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6. Belén Jiménez Alonso, "La construcción psico-sociológica de la 'subjetividad marginal' en la España de finales del siglo XIX y principios del XX" (Universidad Nacional de Educación a Distancia, 2010).
7. Jiménez refers to authors working under the influence of Mercier's neothomistic stance (see Jiménez Alonso, "La construcción psico-sociológica," chapter 11, 2010).
8. *Ibid.*, 459.
9. David Horn, *The Criminal Body: Lombroso and the Anatomy of Deviance* (New York: Routledge, 2013).
10. Savages as a category of human included for Lombroso not only humans from prehistoric times but also children and members of African and Indian tribes as well as all kinds of marginalized groups.
11. Cf. the English summary of Lombroso's work by his daughter: Gina Lombroso, *Criminal Man: According to the Classification of Cesare Lombroso* (New York and London: G. P. Putnam's Sons, 1911).
12. Peter Becker, "Researching Crime and Criminals in the 19th Century," in *The Handbook of the History and Philosophy of Criminology*, ed. Ruth Ann Triplett (Oxford: Wiley, 2018), 32–48.
13. Cesare Lombroso, *L'uomo delinquente studiato in rapporto alla antropologia, alla medicina legale ed alle discipline carcerarie* (Milano: Hoepli, 1876).
14. David Horn, *The Criminal Body: Lombroso and the Anatomy of Deviance*.

15. Becker, "Researching Crime and Criminals in the 19th Century."
16. Ibid.
17. Jonathan Dunnage, "The Work of Cesare Lombroso and Its Reception: Further Contexts and Perspectives," *Crime, Histoire & Sociétés/Crime, History & Societies* 22, no. 2 (2018): 5–8.
18. Horn, *The Criminal Body*, 13.
19. Stephen Jay Gould, *The Mismeasure of Man*, 1st ed. (New York: Norton, 1981), Spanish ed. (Barcelona: Crítica, 1997), 136.
20. Paul Knepper, "Laughing at Lombroso: Positivism and Criminal Anthropology in Historical Perspective," in *The Handbook of the History and Philosophy of Criminology*, ed. Ruth Ann Triplett (Oxford: Wiley, 2018), 51–66.
21. Gabriel Tarde, *La criminalité comparée* (Paris: Alcan, 1886).
22. Knepper, "Laughing at Lombroso," 52.
23. Ibid., 64.
24. Becker, "Researching Crime and Criminals in the 19th Century," 42.
25. Miloš Vec, "Die Seele auf der Bühne der Justiz. Die Entstehung der Kriminalpsychologie im 19. Jahrhundert und ihre interdisziplinäre Erforschung," *Berichte zur Wissenschaftsgeschichte* 30, no. 3 (2007): 235–254.
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28. For information about the socialist ideology of Spanish physicians of that time see Fernando Álvarez-Uría, *Miserables y locos: medicina mental y orden social en la España del siglo XIX* (Barcelona: Tusquets, 1983).
29. See, for example, Álvarez-Uría, *Miserables y locos*; Ricardo Campos, José Martínez Pérez, and Rafael Huertas García-Alejo, *Los ilegales de la naturaleza: medicina y degeneracionismo en la España de la restauración, 1876–1923* (Editorial CSIC-CSIC Press, 2000); Ricardo Campos, "La construcción del sujeto peligroso en España (1880–1936): El papel de la psiquiatría y la criminología," *Asclepio* 65, no. 2 (2013): 017; Ricardo Campos

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30. See Fernando Álvarez-Uría, *Miserables y locos: medicina mental y orden social en la España del siglo XIX* (Barcelona: Tusquets Editor, 1983); Ricardo Campos, José Martínez Pérez, and Rafael Huertas García-Alejo, *Los Ilegales de la naturaleza: medicina y degeneracionismo en la España de la Restauración, 1876–1923* (Editorial CSIC, 2000); Luis Maristany, "Lombroso y España: nuevas consideraciones," *Anales de Literatura Española*, no. 2 (1983): 361–381; José Luis Peset, *Ciencia y marginación: sobre negros, locos y criminales* (Madrid: Crítica, 1983); José Javier Plumed Domingo and Antonio Rey González, "La introducción de las ideas degeneracionistas en la España del siglo XIX. Aspectos conceptuales," *Frenia. Revista de Historia de La Psiquiatría* 2, no. 1 (2002): 31–48.
  31. Based on the philosophy of the German idealist Karl Christian Friedrich Krause. In the Spanish juridical field and legislation the work of his follower Röder was very influential. In the 1870s and 1880s a translated edition of his important books on law and his theory about crime and penalty were published. For more information on this, see Heliodoro Carpintero and Cristina Rechea, "La psicología jurídica en España: su evolución," in *Fundamentos de la psicología jurídica*, ed. Miguel Clemente (Madrid: Pirámide, 1994), 65–98; Angel C. Moreu, "Psicopedagogía y ciencia jurídica en la España de finales del siglo XIX y comienzos del XX," *Boletín de la Institución Libre de Enseñanza* 56 (2004): 61–76.
  32. Rafael Salillas, *La Antropología en el derecho penal* (Madrid: Imprenta de la Revista de Legislación y Jurisprudencia, 1888).
  33. Luis Maristany, "Lombroso y España: nuevas consideraciones," *Anales de Literatura Española*, no. 2 (1983): 361–381.
  34. Ricardo Campos, *El caso Morillo: crimen, locura y subjetividad en la España de la Restauración* (Madrid: Frenia/Consejo Superior de Investigaciones Científicas, 2012).
  35. Maristany, "Lombroso y España: nuevas consideraciones," 368.
  36. Alfonso Serrano Gómez, *Historia de la criminología en España* (Madrid: Dykinson, 2007).
  37. Maristany, "Lombroso y España: nuevas consideraciones."
  38. Bernaldo de Quirós and Llanas and Llamas Aguilaniedo were part of the team. Rafael Salillas, "Laboratorio de criminología," *Revista General de Legislación y Jurisprudencia* 48, no. 96 (1900): 332–358.
  39. Gina Lombroso, *Criminal Man*, 48–49.
  40. Rafael Salillas, "El capitán clavijo (proceso mental)," *La España Moderna* 7, no. 79 (1895): 29.

41. Cesare Lombroso, *L'uomo delinquente*.
42. Rafael Salillas, *El delincuente español: el lenguaje (estudio filológico, psicológico y sociológico)* (Madrid: Librería de Victoriano Suárez, 1896).
43. Salillas, *El delincuente español: El lenguaje (Estudio filológico, psicológico y sociológico con dos vocabularios jergales)* (Madrid: Librería Victoriano Juárez, 1896).
44. Salillas, *El delincuente español*, 150.
45. Ibid., 149.
46. Ibid., 150.
47. Ibid., 151.
48. Ibid., 151–154.
49. Ibid., 156–157.
50. Ibid., 155.
51. Rafael Salillas, *El delincuente español: hampa y lenguaje* (Fragments of His Two Books) (Introduction and Editor: Miranda, M. J.) (Madrid: CSIC, 2004 [1898]), 92.
52. Ibid., 90.
53. Serrano, *Historia de la criminología en España*.
54. Concepción Arenal, "Psychologie comparée du délinquant," *Revue Pénitentiaire*, no. 5 (1886): 646–655.
55. Ferri cited in Tarde, *La criminalité comparée*.
56. Gina Lombroso, *Criminal Man*, 140.
57. *Grosses vollständiges Universal-Lexicon aller Wissenschaften und Künste*, vol. 62 (Halle and Leipzig: Zedler, 1732), 522.
58. Susan A. Ashley, *Making Liberalism Work: The Italian Experience, 1860–1914* (Westport, CT [u.a.]: Praeger, 2003).
59. Salillas, *El delincuente español*, 89.
60. Annette Mülberger and Ana Maria Jacó-Vilela, "Es mejor morir de pie que vivir de rodillas: Emilio Mira y López y la revolución social," *Dynamis: Acta Hispanica Ad Medicinae Scientiarumque Historiam Illustrandam* 27 (2007): 309–332.
61. Emilio Mira y López, *Manual de Psicología jurídica*, 2a ed. (Buenos Aires: El Ateneo, 1945), 7.
62. Ibid., 8.
63. Ibid., 23.
64. The German psychiatrist Ernst Kretschmer (1888–1964) developed in the 1920s his constitutional theory (*Konstitutionslehre*) and doctrine about human character which was very influential in Europe and beyond. His types indicate the kind of psychosis a person would tend towards (following the classification of Kraepelin).
65. Mira y López, *Manual de Psicología jurídica*, 29.
66. Ibid., 29.

67. In 1911 Henry Goddard used the galvanometer to detect changes in the body's electrical currents, which he correlated with emotional arousal, but admitted that he could not tell the kind of emotion the subjects were feeling. For more on this and on the emergence of the psychiatric typology of the "pathological liar" and the lie detectors fabricated in the United States by Larson and Marston in the 1920s and 1930s see Michael Pettit, *The Science of Deception: Psychology and Commerce in America* (Chicago and London: University of Chicago Press, 2013).
68. Gina Lombroso, *Criminal Man*; Enrico Ferri, *Sociología Criminal* (Madrid: Centro Editorial de Góngora, 1908 [1888]).
69. Cornelius Borck, "Writing Brains: Tracing the Psyche with the Graphical Method," *History of Psychology* 8, no. 1 (2005): 79–94.
70. *Ibid.*, 83.
71. Alexander Romanowitsch Luria, "Die Methode der abbildenden Motorik bei Kommunikation der Systeme und ihre Anwendung auf die Affektpsychologie," *Psychologische Forschung* 12, no. 1 (1929): 127–179; Alexander Romanowitsch Luria, *The Nature of Human Conflicts or Emotions, Conflict and Will: An Objective Study of Disorganisation and Control of Human Behaviour* (New York: Liveright Publishers, 1932), see, for example, curves on p. 126 and p. 29.
72. Mira, *Manual de Psicología jurídica*, 2nd ed., 172.
73. Prueba miokinética, abbreviated PMK, see Emilio Mira y López, "Myokinetic Psychodiagnosis: A New Technique of Exploring the Conative Trends of Personality," *Proceeding of the Royal Society of Medicine* 23, no. 173 (1939): 173–194.
74. Mira y López, *Manual de Psicología jurídica*, 297–298, highlighting in the original.
75. *Ibid.*, 301.
76. *Ibid.*, 300, highlighting in the original.
77. Mira distinguished between two trends in the drawings: What he called the "egocífugo" and the "egocípeto" trend. The first resulted from the use of extensive and the second from flexure muscles. For a complete explanation of the evaluation of the test see Emilio Mira y López, *Psicodiagnóstico Miokinético (P.M.K.) Manual* (Buenos Aires: Paidós, 1979); free accessible on <http://www.miraylopez.com/Libros/Psicodiagnostico%20miokinético.pdf>; for a German translation see *Myokinetische Psychodiagnostik*, trans. Klaus Hasemann (Bern and Stuttgart: Huber, 1965) and on a statistical study with a digitalized version of the test see Rubén Muiños Martínez, *El Psicodiagnóstico Miokinético: Desarrollo, Descripción y Análisis Factorial Confirmatorio* (University of Barcelona: Doctoral Dissertation, 2002).
78. Mira y López, *Manual de Psicología jurídica*, 320.
79. *Ibid.*, 316.

80. See Mira, Montserrat on <http://www.montserratmira.com/MyL%20Blau.pdf>.
81. Cf. Michel Foucault, *Discipline and Punish: The Birth of the Prison*, 1st American ed. (New York: Pantheon Books, 1977).
82. Pettit (*The Science of Deception*) worked out the mutual influence between criminology and psychoanalysis in the United States.
83. Nevertheless, access to these bodies was often not that easy. At times access to dead bodies was denied, as was taking pictures of convicted offenders. Criminologists often needed the cooperation of directors of asylums, hospitals and orphanages (see Horn, *The Criminal Body*).
84. Rafael Salillas, "Laboratorio de criminología," 339.
85. Becker, *Researching Crime and Criminals in the 19th Century*, 40.
86. Serrano, *Historia de la criminología en España*, 163.
87. See, for example, the ideas of *regeneracionistas* like Costas and the "*generación del 98*" in literature.
88. Álvarez-Úria, *Miserables y locos Medicina mental y orden social*; Campos et al., *Los ilegales de la naturaleza*; Campos, *La construcción del sujeto peligroso*.
89. Nikolas Rose, *Inventing Our Selves: Psychology, Power and Personhood* (Cambridge: Cambridge University Press, 1996/1998).
90. Ibid., 29–30.
91. Pettit, *Science of Deception*, 7–8; see also chapter 5 on lie detectors.