ILLUSTRATIVE STUDIES IN CRIMINAL ANTHROPOLOGY.

I.

"LA BÊTE HUMAINE" AND CRIMINAL ANTHROPOLOGY.

IF I had to be the judge of M. Zola I could be only a very partial judge. To me the books of Zola are, with those of Dostoyewski and Tolstoï, the only ones which have struck a fresh tone in the literary monotony of this quarter of a century, in which it is said the political levelling and the general abasement of character extend even to the republic of letters. Thus I am partial to Zola, for, as the chief of a school which pushes the science of psychiatry far into the field of psychology and of sociology, I find in Zola an ally the more valuable that he has not been sought and that he reigns in a very different empire. To the scientific charlatans who deny, as does M. Colajanni, the importance and the gravity of alcoholism, its associations with crime and degeneracy, "*L'Assommoir*" is perhaps the best of refutations. "*Germinal*" and "*La Fortune des Rougon*" give us the demonstration of that cruelty which is born for the crowd and in the crowd, and both prove the influence that criminals and lunatics have in rebellions. Zola is the only one of the Latin race who endeavors to introduce the scientific method into literary work.

His romances are modern histories which are founded upon living data, as histories in general are on dead data. And in history he knows also how to employ soberness, by contenting himself with a very simple sketch, disdaining the vulgar tricks which are as easy to invent as they are far from the truth.

I ought to be still more partial to "*La Bête Humaine*"; for, with a generosity not very frequent in men of letters, M. Zola avows that he had recourse to my "*Homme Criminel*" and my "*Homme de Génie*" for the material for his romance. Nevertheless, I cannot forbear mixing some criticism with the praises merited by this work, for I do not find satisfied by it that which I regard more than my personal vanity : my love of truth. In "*La Bête Humaine*" all those artifices which the romanticists had accustomed us to, and from which Zola was freed, reappear, and that alas too often !

In the first place, it is a sufficiently strange fatality that the same knife that was given as a mark of conjugal love should be by turns the instrument of every murder committed, and that all the assassinations, derailments, and suicides invariably occur at the Croix-de-Maufras, where the first lewd practices of the President Grandmorin took place. That a great number of criminals should be congregated in the small enclosure of a second-rate railway station and of its approaches, is in itself a strange fact, but it is still more strange that every crime always derives its character from that accursed place which already bears a fateful and dismal name. This is contrary to the laws of probability ; for we know by statistics that the number of criminals, as well as of crimes, is always the same for a certain number of people, or a certain number of square miles, or years, and cannot be massed and restricted to a small space of ground, to so few individuals, and so short a time. This is an atavistic reversion, or, we might say, a return to the old ways of romance, in which fatal events always followed each other in certain fatal localities, or through particular men and by certain fated weapons, etc. In "*La Fortune des Rougon*," also, there is a certain musket which serves for the murder of gendarmes by a grandfather and his nephew, and of the nephew by gendarmes ; as if the cause of the fatality was not the hereditary instinct, but this silent and unconscious instrument.

However, the greatest fault is not here ; but rather in the delineation of character. Zola, who, in my opinion, has admirably depicted people poisoned by alcohol, and the common middle classes of the towns and of the country, has not studied criminals accord-

ing to nature : undoubtedly because the latter are not so easily met with ; nor allow themselves to be studied even in prisons. Zola's figures of criminals give me the false pictorial effect produced by certain photographs taken from portraits, and not from the living subjects. For this reason it is then that I, who have studied thousands and thousands of criminals, should not know how to class his Roubaud, a good clerk and a good husband, who on accidentally discovering the secret of the old amours of his wife with Grandmorin, which were not yet done with, throws himself upon her, wishes to kill her, finally changes his mind, and ends by deciding on the murder of the pseudo-adulterer, with the complicity of his wife. Can he be called a criminal through passion ? But then it is *she* that he should have killed, or at least the adulterer being killed he should have repented of it. And again, criminals through passion are, like Roubaud, very good and respectable people, but in their crimes they rush blindly and headlong forward, without accomplices, without premeditation, and without artifices. And they repent, they confess : they are the only criminals who feel remorse. He has no remorse ; for some time he leads a life of revenge, and, afterwards, suddenly, he gives himself up to vice, to wine, to gambling, and forgets his wife, and he is jealous of her no more ; on the contrary, indifferent, he assists in her infidelities. Can he be called a born criminal, a *bête* ? But then how explain that he had lived so long without vices, free from debauchery, and that he had been so good a clerk ? He could still be a criminal incidentally ; but for a correct, steady, quiet man, as a railway official ought to be, would the discovery of the old amour of his wife be a proportionate reason for him to commit a premeditated murder, the greatest of crimes ? And then, as we shall see, criminaloids are born criminals in part ; they have many of the latter's psychological and physical characteristics. Now Roubaud has a full beard, red hair, and quick eyes : the only anomalies are meeting eyebrows, a low forehead, and a flat head : nothing is said of hysterical or epileptical ancestors.

According to Henry Héricourt (*Revue Bleue*, p. 14), M. Zola was inspired by a recent trial, that of the apothecary Fenayron, who is said to have had much resemblance to Roubaud. Marin

Fenayron, the apothecary, was a man of forty-one, intelligent, steady, and industrious. He had married, twelve years before, the youngest daughter of his old employer, whom he had succeeded. His wife, who was eighteen years old at the time of her marriage, and who had consented to the union only with repugnance, was not slow to deceive him, and soon formed an intimacy with his assistant. This triangular relation lasted a time, not precisely stated by the proceedings, but sufficiently long for Gabrielle Fenayron, tired of her first lover, to take the opportunity to replace him by several others. The husband, who during this time has become a gambler and idle fellow, is informed of the misconduct of his wife. Although he did not put much credit in this at first, yet in the quarrels which followed and were continually renewed he ended by abusing her, striking her, and menacing her with death : and at last he obtained from her the confession of her relations with his old assistant Aubert, then himself established as a chemist. According to her recital, the woman could obtain the pardon of her husband only by the promise that she would assist him in his plans of revenge, and she had consented through shame without protesting. Then, by the order of her husband, she writes several letters to her old lover, renews relations with him, and finally, under the pretext of a country excursion, draws him into an ambush where she aided her husband in killing him with a hammer. It will be remembered that Aubert, after the first blow, turned round, recognised his murderer, and prepared to defend himself : but his mistress threw herself on him, twined her arms about him, and the husband could thus finish his work in safety.

After the crime there was no remorse on the part of either the one or the other. Far to the contrary. The criminal pair delivered themselves anew to their accustomed distractions with the most perfect tranquillity, and the performance appeared without doubt very natural to Fenayron, for one day, meeting his mother-in-law, he accosted her, saying, "Well, Mother, it is done. I have killed Aubert."

But let it be remarked how this Marin Fenayron, who figures as an occasional criminal, this time reveals himself a criminal by habit, meditating and premeditating his vengeance, waiting two

long months before putting it into execution, surrounding himself with every precaution to secure immunity for the crime. Such a one certainly is not the violent man whom passion blinds and who is instantaneously inflamed with anger. It is rather the degenerated man with whom predisposition has found the opportunity to reveal and to develop itself. It is necessary to add that Marin had a brother feeble in mind : an hereditary defect.

The true *bête humaine*, Jacques Lantier, possesses the anatomical characters of the born criminal ; "his thick black locks were curled, like his moustaches, so heavy and dark that they increased greatly the natural paleness of his complexion." Moreover, the inclination to crime in him was justified by inheritance. And this passion for murder which supplants the sensual passion is truly intoxicating. Where the author has gone astray is where he makes Jacques find pleasure for a considerable time with Séverine without any thought of murder ; while these unfortunates, at least all that I have studied, do not experience sexual pleasure except in murder. On the other hand, the vertigo of epileptic amnesia which Zola often causes Jacques to suffer, is based on fact and actually accords with the most recent observations :

"He had finally found himself on the brink of the Seine without being able to explain to himself how. That of which he retained a very clear impression, was of having thrown from the top of the bank the knife that his hand held clutched in his pocket. Then he knew no more, stupefied and absent of mind, out of which the other, and the knife too, had entirely vanished. . . . He was in his narrow chamber in the Rue Cardinet, fallen across his bed, fully dressed. Instinct had brought him back there, as a worn out dog crawls to his kennel. Besides he remembered neither having ascended the stairs, nor of having slept. He awoke from a heavy sleep, scared to re-enter abruptly into possession of himself, as after a profound fainting fit. Perhaps he had slept three hours, perhaps three days."

Never have I found a more perfect description of that which I have termed criminal, epileptoid vertigo. But here again is a mistake of fact arising from a velleity not content with knowledge. It is that the novelist several times explains these bloodthirsty sexual instincts by a peculiar kind of atavism : the tendency, namely, to avenge the evil that women had done to his race ; the spite accumulated from male to male since the first deceit in the depths of

caverns. This is an error of fact. Primitive women have never done wrong to men. More feeble than men, they have always been their victims. These bloodthirsty sexual instincts are explained by a quite different atavism, which goes back to inferior animals, to the conflict between the males for the conquest of the female, who remained for the strongest; and by the blows that were inflicted on the woman in order to reduce her to conjugal slavery, conflicts of which traces still remain in Roman history (the Rape of the Sabines), and in the nuptial rites of almost all European countries, and in those of New Zealand, where the husband knocks down his wife before carrying her off to the matrimonial bed.

Another technical defect is, that a man who has arrived at the degree of degeneracy that Jacques has, ought to have still other vices: as great violence of character, impulsiveness without cause, profound immorality; while, as a matter of fact, except in moments of sexual fury, he appears as a good and honorable man. However, even recognising the force of his bloody sexual monomania, I find that instinctive aversion, characteristic of the good man, to be proper which Jacques feels at the thought of killing some one who is not a young and beautiful woman; for instance, to killing his rival, notwithstanding the favorable circumstances and the suggestions of Séverine.

"To kill that man, my God! Had he the right to do it? When a fly troubled him he would crush it with a blow. One day when a cat had got between his legs, he had broken its back with a kick. But to kill this man, his fellow-creature! He must reason with himself, he must prove his right to murder; the right of the strong whom the weak are troublesome to. . . . But afterwards that appeared to him monstrous, impracticable, impossible. The civilised man revolted in him, the acquired force of education, the slow and indestructible concretion of inherited ideas. His cultivated brain, filled with scruples, repelled murder with horror, as soon as he began to reason about it. Yes, to kill in a case of necessity, in a transport of rage! But to kill voluntarily by design, and from interest, no never, never could he do it!"

All that is very true. Where the author has certainly copied after nature is in the personality of Séverine. She is not a true criminal; sensual, depraved though still young, experiencing love only in adultery. Though deceitful, she is nevertheless a good wife and a good housekeeper up to the day where chance had thrown her

into evil doing. She is united to her husband, and for that reason she becomes his accomplice in crime, without horror or dread; but afterwards, seized with love for Jacques, she experiences dislike for her husband and wishes to turn the lover into his murderer.

"The need increased in her of having Jacques for herself, all for herself, to live together, days and nights, without ever more parting. Her hatred of her husband grew greater, the mere presence of this man threw her into a morbid and intolerable condition of excitement. Tractable, and with all the amiability of a delicate woman, she became enraged at everything in which he was concerned; she flew into a passion at the least obstacle he put to her wishes. . . . The stupid tranquillity in which she saw him, the indifferent glance and manner with which he received her anger, his round back, his enlarged stomach, all that greasy dullness which has the appearance of happiness, made her exasperation complete. Oh! to go far away from him. . . . One day when he returned, pale and livid, to say that in passing before a locomotive he had felt the buffer graze his elbow, she thought to herself that if he were dead she would be free. . . . She would go with Jacques to America. . . . She who at other times so rarely went out now conceived a passion for going to see the steamships sail. She would go to the pier, and would lean on her elbow watching the smoke of the departing vessels. . . . [And at the decisive moment] she threw herself passionately on Jacques's neck. She fastened her burning lips to his. How she loved him and how she hated the other! Oh! if she had dared, twenty times already would she have done the deed . . . but she felt herself too gentle, it required the hand of a man. And this kiss which would never come to an end, was all that she could communicate to him of her courage, the full possession that she promised him, the communion of her body. When she finally withdrew her lips nothing more was left to her; she believed that she had passed completely into him."

And is this, then, the woman criminal, the criminaloid, as I have called her (Vol. II of my "*Uomo Delinquente*")? A criminal who, when she is not urged onward by opportunities, (and these opportunities always have love for their origin,) is not capable of any true crime, and who when she commits it always makes use of the arm of another; and this latter is always her lover, for she finds herself too feeble to accomplish it herself. Her anatomical characters, as well as her physiognomy, if not those of the born criminal, have at least some features which those of other females have not, and which unite her with the animal. "She had very black and very thick hair, which stood like a helmet on her forehead, a long face, a strong mouth, and large blue-green eyes."

M. Héricourt justly finds that many features of this woman are to be met with in Gabrielle Fenayron, the accomplice of her husband. Gabrielle Fenayron is about thirty years of age : she is a tall dark woman with a very pale complexion ; her hair is very black, the oval of her face elongated, and her eyes have a certain hardness that accentuate the projecting and unsightly cheek-bones. Gabrielle Fenayron, as we know, pretended to have been terrorised by the threats which her husband had uttered against her, and to have been infatuated, on the other hand, by the love that she felt for him ; she had thus submitted her will in order to repair her fault. In the appreciation of this system of defence, the bill of indictment stated that the energy and the coolness exhibited by this woman in the preparation of assassination, the facilities that she had during the course of the long premeditation which had preceded the murder to warn Aubert without danger to herself, induced the belief that she had in the commission of the crime yielded to a profound hatred against her old lover. But this interpretation appears to me, psychologically, to be a clumsy and a forced one. It is not necessary to have recourse to motives left mysterious in order to explain the absolutely strange conduct of some women.

Perhaps Zola would have completed his picture if he had known Gabrielle Gompard ; who allies and unites the passion of murder with prostitution when she attaches herself to a wicked man, but who grows animated for virtue and denounces herself an accomplice when she becomes the mistress of a virtuous man. These women change their personality in changing a lover, and then make a point of playing a rôle in the miserable world where their fickle passions destroy them.

Less happy, perhaps, has Zola been in the case of Flora, "fair, strong, with thick lips, and great greenish eyes, with low forehead set beneath heavy hair." According to the plot of the novel, she should be a criminal of passion. A good woman throughout her whole life, she commits a crime through jealousy. But the method of the crime (the derailment of a train with a view to striking her rival and her lover) is not that which is chosen by criminals of passion, who are unable to meditate long on their crimes, and

who kill in day-light without premeditation. It is true that it is natural to the mind of female criminals to deal indirect and very complicated blows, and without proportion to the end to be attained : but all this is only the effect of their weakness. In a virago as strong as Flora is depicted, (a bellicose maid with the strong and hard arms of a boy,) this reason fails to satisfy us ; and when she meditates her crime she is urged much less by thoughts of revenge, than by a necessity to commit the wrong in order to become cured of her own ; she is then a born criminal, an epileptic rather than a creature of passion ; and in this sense the attribute that he gives to Flora of a monstrous muscular force, that is observed very frequently in born criminals, would be reasonable. Thus the girl who always wore masculine clothes had a remarkable muscular power. Her weapon was a hammer, and with it she struck down many men.

I knew at Turin a murderess, a courtesan, who when a model in Paris, killed for money and love an artist, whose portrait she carried tattooed on her arm. This unfortunate woman fought two or three times with the five wardens of her prison. When liberated she was the head of all the scoundrels of Turin, challenging them to contest. One day even I found her in a red shirt, with epaulettes on. "It is my ensign," said she to me, "I am the captain of the scoundrels of Turin." But all these women are very different from Flora. Of course, a single and only love is wanting in their case.

It will finally be said, that the propensity which casts the two criminaloid women into the arms of the born criminal, the *bête humaine*, is copied from nature. As a matter of fact, there does exist a true elective affinity which unites the two sexes of these unfortunates ; a cause that gives rise to criminal families, which form the nucleus of gangs. Nevertheless, the demonstration of it in this instance is not evident, for in crowding a large number of criminals into so narrow a space, great liberty of choice is excluded.

II.

CRIMINAL ANTHROPOLOGY AND PSYCHIATRY.

Secretions.—Dr. Ottolenghi* has made in my laboratory a number of observations with 15 born criminals and 3 occasional criminals, for the purpose of ascertaining the proportional quantities of urea, chlorides, and phosphates eliminated under the same alimentary conditions. Here are the average results :

	GRAMMES.
Urea per 100 grammes of the weight of the body	
{ Born criminals.....	0.39
{ Occasional criminals....	8.53
Phosphates.....do.....	
{ Born criminals.....	0.024
{ Occasional criminals....	0.0195
Chlorides.....do.....	
{ Born criminals.....	0.28
{ Occasional criminals....	0.29

There is therefore amongst the born criminals a diminution in the elimination of urea ; and an augmentation in that of phosphates, while the elimination of chlorides does not vary. He has obtained the same results in the case of psychical epilepsy ; while the occasional criminal offers no anomaly.

In connection with this it may be stated, that, on the other hand, Mr. Rivano † found amongst epileptics on the days of paroxysm a greater quantity of urea and less phosphates.

Power of Smell.—Dr. Ottolenghi has also studied the power of smell amongst criminals. He has contrived with this object in view an osmometer, containing 12 aqueous solutions of the essence of cloves varying from 1 part in 50,000 to 1 part in 100. He made his observations in several series, one each day only ; the conditions of ventilation being about the same, and the solutions being renewed for each observation, to avoid errors caused by evaporation. He looked first for the lowest degree at which olfactory perception began. In former experiments he proceeded differently. He disarranged the different bottles, and requested the subject to replace

* *Journal of the Medical Academy of Turin*, 1888. *Archiv. di Psichiatria, Scienze penali ed Antropologia Criminale*, Turin, 1888, x, Lombroso.

† *Archiv. di Freniatria*, Turin, 1889.

the same in the order of the intensity of their odor. He has divided the errors of disposition which resulted into serious and less serious errors, according as, in the order of the solutions, there occurred a distance of several or only one degree. He examined 80 criminals (50 men, 30 women) and 50 normal persons (30 men, mostly chosen amongst the prison warders, and 20 respectable women). Here are the results :

While amongst the normal males the average power of smell varied between the third and fourth degree of the osmometer, amongst the criminals it varied from the fifth to the sixth degree ; 44 individuals had no power of smell at all. While the honest men made an average of three errors in the disposition of the bottles, the criminals made five, of which three were so-called serious ones.

The normal women touched the fourth degree of the osmometer, the criminal women the sixth degree ; with two the power of smell was wanting entirely. While the normal women made an average of four faults in the disposition, the criminal women made five.

In eight cases of anosmia (loss of the sense of smell), presented in a certain set of criminals, two cases were due to nasal deformities ; the others were a kind of smell-blindness ; the subjects were susceptible to odoriferous excitations, but were unable to specify them and still less to classify them.

To verify what was really true in the assertion,* that criminal offenders against morality and customs have a highly developed power of smell, he examined this power in 30 ravishers and 40 prostitutes. In the former he found olfactory blindness in the ratio of 33 to 100 ; the remainder possessed an average power corresponding to the fifth degree of the osmometer. Arranging, then, the different solutions according to their intensity, he observed three so-called serious errors. In 19 per cent. of the girls submitted, he found olfactory blindness ; and for the others an average acuteness correspond-

* Kraft-Ebing, *Psychopatia sexualis*, 4th ed., Stuttgart, 1889.—*Archiv. di Psichiatria*, 1889.

ing to the fifth degree of the osmometer. Comparing these results with those obtained for the normal subjects and for regular criminals, the power of smell appears much less developed in the class just considered.

Taste.—Dr. Ottolenghi has also examined the sense of taste of 100 criminals (60 born criminals, 20 occasional criminals, and 20 criminal women). He compared them with 20 men taken from the lower classes, 20 professors and students, 20 respectable women, and 40 prostitutes. These series of experiments were made with 11 solutions of strychnine (graduated $\frac{1}{80000}$ to $\frac{1}{800}$) and of saccharine (from $\frac{1}{100000}$ to $\frac{1}{1000}$), and 10 of chloride of sodium ($\frac{1}{800}$ to $\frac{3}{100}$). The criminals showed remarkable obtuseness. The lowest degree of acuteness was found in the proportion of 38 to 100 in born criminals, 30 to 100 in occasional criminals, 20 to 100 in criminal women; while we found it in 14 per cent. of the professors and the students, in 25 per cent. of the men from the lower classes, in 30 per cent. of the prostitutes, and finally in 10 per cent. of the respectable women.

Walk.—A study which I have made with *Perachia*,* shows us that, contrary to the case of normal men, the step of the left foot of criminals is generally longer than that of the right; besides they turn off from the line of the axis more to the right than to the left; their left foot, on being placed on the ground, forms with this line an angle of deviation more pronounced than the angle formed by their right foot; all these characteristics are very often found among epileptics.

Gestures.—It is an ancient habit among criminals to communicate their thoughts by gestures. Avé-Lallemant describes a set of gestures used among German thieves,—a real language executed solely with the fingers, like the language of the deaf. Vidocq says that pickpockets, when they are watching a victim, give each other the signal of Saint John, which consists in putting their hand to their cravat or even in taking off their hat. But Pitré especially has published the most important information on this point. In his “*Usi e Costumi della Sicilia*” (Usages and Customs of Sicily,)

* *Sur la Marche suivant la Méthode de Gilles de la Tourette.*

he describes 48 special kinds of gestures employed by delinquents. This phenomenon is explained by the exaggerated mobility with which born criminals are endowed, as is the case with children.

MORPHOLOGICAL ANOMALIES.

The Skeleton.—Mr. Tenchini, having made studies upon 63 skeletons of criminals, has found in the proportion of 6 out of 100 cases, the perforation of the olecranon (the bony prominence at the back of the elbow) which one observes in 36 out of 100 Europeans, and in 34 out of 100 Polynesians; he likewise observed additional ribs and vertebræ in 10 cases out of 100 of them, and also too few, in the same proportion; which reminds us of the great variability of these bones in the lower vertebrates. Lately he has even found in a criminal 4 sacral vertebræ too few, made up by 4 supplementary cervical vertebræ.

Madame Tarnorosky in her study of prostitutes, female thieves, and peasant women has demonstrated,* that the cranial capacity of prostitutes is inferior to that of female thieves and peasant women and particularly to that of women of good society; † *vice versa*, the zygomas (bones of the upper jaw) and the mandibles (lower jaw) were more developed among the prostitutes, who also exhibited a greater number of anomalies, in the proportion of 87 to 100, while the proportion of the female thieves showing anomalies was 79 to 100, and the proportion of peasant women was 12 to 100. The prostitutes had 33 in 100 of their parents addicted to drink, while the female thieves had 41 in 100 and the peasant women 16 in 100. Mr. De Albertis has found tattooing among 300 prostitutes of Genoa

* MEASUREMENTS.	50 PROSTI- TUTES.	100 PROSTI- TUTES.	100 FEMALE THIEVES.	50 PEASANT WOMEN. (NORTH.)	50 PEASANT WOMEN. (SOUTH.)	50 LADIES OF GOOD SOCIETY.
Anteropost. diam.....	17'7	17'8	17'9	18'3	18	18'3
Max. trans. diam.....	13'9	14'4	14'9	14'5	14'5	14'5
Max. circumference.....	52'9	53'3	53'5	52'7	53'6	58'8
Zygomatic dist.....	11'4	11'3	11'2	10'9	11'4	11'3
Mandib. biang. distance.....	10'1	10'18	9'1	9'1	9'9	9'8

† *Archiv. di Psichiatria*, Mierjeivki, 1887.—Ibid., 1888, p. 196.

in the enormous proportion of 70 in 100.* He has also found the tactile sensibility of the women very much diminished: 3.6 millimetres to the right and 4 millimetres to the left.

Among criminal women, Saloalto has made studies altogether new; he has recognised among 130 female thieves the degenerative character, anomalies of the skull and of the physiognomy, in a less degree than among the men; he has found brachycephaly in 7, oxycephaly in 29, platycephaly in 7, the retreating forehead in 7, strabismus in 11, protruding ears in 6; the sense of touch was normal in 2 out of 100, the reflexions of the tendons decreasing in 4 out of 100, exaggerated in 12 out of 100.

Marro and Marselli have explained by sexual selection this enormous difference, which one also finds among epileptics and particularly in insane people; the men in fact do not choose ugly women with degenerative characters, while the women have no choice, and very often an ugly man, criminal, but vigorous, for this reason triumphs over all obstacles; sometimes he is even preferred. (Flaubert, "Correspondance," 1889.) Let us add that the cares of maternity soften the character of women, and augment in them the sentiment of pity.

Dr. Ottolenghi † has studied in my laboratory the wrinkles of 200 criminals and 200 normal persons (workingmen and peasants), and he has found that they occur earlier and much more frequently among the criminals; in fact, two to five times more so than among normal persons, with predominance of the zygomatic wrinkle (situated in the middle of each cheek), which wrinkle may well be called the wrinkle of vice, and is the characteristic wrinkle of criminals.

In criminal women (80) also, wrinkles have been found more frequent than in normal women, although here the difference is not so marked. One calls to mind at once the wrinkle of the sor-

* *Arch. di Psichiatria*, x, 1889.

† LOCATION.	UNDER 25 YEARS.		BETWEEN 25 AND 50 YEARS	
	NORMAL. p. 100.	CRIMINAL. p. 100.	NORMAL. p. 100.	CRIMINAL. p. 100.
Wrinkles of the forehead.....	7.1	34	62	86
Nasolabial wrinkles.....	22	69	62	78
Zygomatic wrinkles.....	0	16	18	33

cerers. It is enough to look at the bust of the celebrated Sicilian woman poisoner, preserved in the National Museum of Palermo, and whose face is one heap of wrinkles.

Dr. Ottolenghi, studying with me the frequency of canities (turning grey) and baldness in people, has demonstrated either absence or lateness of the same among criminals,* as also among epileptics and among cretins. Among the first, swindlers only tend to approach more the normal type.† On the other hand, among 280 criminal women canities was found more frequently, and baldness less frequently, than in the case of 200 honest workingmen.

We shall not terminate this part of our discussion without making mention of the beautiful discovery that we owe—it pleases us to state—to a lawyer, Mr. Anfosso. The tachyanthropometer which he has constructed is a real automatic measurer. (Archiv. di Psych., Art. IX. p. 173.) We might name it,—if the word did not possess a little too much local color,—an anthropometric guillotine; so quickly and with the precision of a machine, does it give the most important measurements of the body, which makes the practice of anthropometry very easy, even to people who are entire strangers to the science; and it facilitates, moreover, the examination of the description of individual criminals, the perfection of which will always remain one of the most glorious distinctions of M. Bertillon. And at the same time that this instrument renders services to the administration of justice, it permits on a grand scale observations which hitherto were only obtainable by the learned.

* *La Calvizie, la Canizie e le Rughe nei normali, nei criminali negli epilettici e nei cretini.* Archiv. di Psichiatria, 1889, x.

† CLASSES.	WITH CANITIES.	WITH BALDNESS.
	p. 100.	p. 100.
400 Normal people.....	62'5	19
80 Epileptics.....	31'5	12'7
40 Cretins.....	11'7	13'5
490 Criminals.....	25'9	48
Thieves.....	24'4	2'6
Swindlers.....	47	13'1
Maimers.....	23'7	5'3
80 Criminal women.....	45	9'7
200 Honest women.....	60	13

Experiments were made a short time ago by Mr. Rossi, who studied the result of these measurements in 100 criminals (nearly all thieves). He found the breadth of the span of the arms to be greater than the height of body in 88; and in 11 to be less. In 30 he found the right foot larger; in 58 he found the left foot larger; in 12 both feet equal. The right arms of 43 per cent. were longer than the left, and the left in 54 per cent. longer than the right. Which confirms to a marvellous degree the *gaucherie*, mancinism, or structural misproportion, that had before been indicated by dynamometry and the study of the walk of criminals.*

The very frequent recurrence of anatomical misproportion and *gaucherie* could not be better confirmed; and there are in this atavistic symptoms, for Rollet has observed in 42 anthropoids the left humerus to be longer than the right, in the proportion of 60 to 100, while among men the proportion is only 7 out of 100. (*Revue Scientifique*, 1889.)

This anatomical misproportion I have very recently verified with Mr. Ottolenghi by measurements of the two hands, the middle fingers, and the feet, right and left, in 90 normal persons and in 100 born criminals.† (Archiv. di Psichiatria, X. 8.)

Tattooing—I was under the belief that in this respect nothing more was to be said after the beautiful studies of Messrs. Lacassagne and Marro, and after my own.‡

However, the researches made by Messrs. Severi, Lucchini, and Boselli on 4,000 new criminals have given results of a high importance and first of all a proportion eight fold greater than that of

* *Archiv. di Psichiatria*, 1889, Vol. x. p. 191.

† TYPES.	HAND LONGER.		MIDDLE FINGER.		FOOT.	
	RIGHT. PER CENTUM.	LEFT. PER CENTUM.	RIGHT. PER CENTUM.	LEFT. PER CENTUM.	RIGHT. PER CENTUM.	LEFT. PER CENTUM.
Normal persons.....	14'4	11	16.6	15'5	38'5	15'6
Criminals.....	5	25	10	27	27	35
Swindlers.....	4'3	13	13	21'7	21'7	26
Ravishers.....	7	14'2	14'2	28'4	35'7	35'7
Maimers.....	15	25	5	25	20	55
Thieves.....	0	34'8	13	30'4	26	26'6
Pickpockets.....	0	35	5	30	35	25

‡ See *Nouvelle Revue*; also my *Uomo Delinquente*, 4th ed., 1889.

the alienists of the same district (Florence and Lucca). The prevalence of this practice is enormous ; it amounts to 40 in 100 among military criminals and to 33 in 100 among criminals under age ; the women give a proportion of only 1·6 in 100, but this would be increased to 2 in 100 if we included certain kinds of fly-tattooing (*tatouages mouches*) resembling beauty spots, which are found even in high life prostitution.

What chiefly astonishes us in these researches, next to the frequency of the phenomena, is the specific character of the tattooings : their obscenity, the vaunting of crime, and the strange contrast of evil passions and the highest sentiments.

M. C. . . ., aged 27 years, convicted at least fifty times for affrays, and the assaulting and wounding of men and horses, has the history of his crimes literally written on his skin ; and in this respect, let us note that the infamous De Rosny, who only lately committed suicide in Lyons, had her body covered with tattooings in the form of erotic figures ; one could read there the list of her lovers and the dates at which she left them.

F. L. . . ., a carrier, aged 26 years, several times convicted, bears on his breast a heart pierced by a poniard (the sign of vengeance), and on his right hand a female singer of a *café chantant*, of whom he was enamoured. By the side of these tattooings, and others which propriety forbids us to cite,* one sees with surprise the picture of a tomb with the epitaph : “To my beloved father.” Strange contradictions of the human mind !

A certain B. . . ., a deserter, has on his chest a St. George and the cross of the Legion of Honor, and on the right arm a woman, very little dressed, who drinks with the inscription : “Let us wet the interior a little.”

Q. A. . . ., a laborer, convicted many times for theft, expelled from France and Switzerland, has on his chest two Swiss gendarmes with the words “Long live the Republic !” On his right arm he has a heart pierced through, and at the side the head of a fish—a mackerel, to signify that he will poniard a bully, his rival.

*See *Atlas de L'Homme Criminel*, 1888. Alcan.

We have seen on the left arm of another thief, a pot with a lemon tree, and the initials V. G. (*vengeance*) ; which in the strange language of the criminals means : treason, and, afterwards, revenge. He did not conceal from us the fact that his constant thought was to revenge himself on the woman who loved him and then abandoned him. His desire was to cut off her nose. His brother offered to perform the operation for him, but this he refused, reserving for himself the pleasure of executing his purpose when he should ultimately be liberated.

One sees, therefore, from these few examples, that there is among criminals a kind of hieroglyphical writing, but which is not regulated or fixed. The system is founded on daily happenings and slang, as would be the case among primitive mankind. Very often, in fact, a key signifies among thieves the silence of secrecy ; and a death's-head (the bare skull), revenge. Sometimes points are used instead of figures. In this way one criminal marked himself with 17 points, which means, to his mind, that he proposes to inflict injury on his enemy seventeen times, whenever he meets with him.

The criminal tattooers of Naples have the habit of making long inscriptions on their bodies ; but initials are used instead of words. Many Camorristi of Naples carry a tattooing which represents iron bars, behind which there is a prisoner and underneath the initials Q. F. Q. P. M., which means : "Quando finiranno queste pene ? Mai !" (When will these pains end ? Never !) Others bear the epigraph C. G. P. V., etc., which means : "Courage, galeries, pour voler et piler ; nous devons tout mettre à sang et à feu !" (Courage, convicts, to steal and to rob ; we must put all to the sword and fire !) We see here at once that certain forms of tattooing are employed by criminal federations, and serve as a sort of rallying-call. In Bavaria and in the South of Germany, the pickpockets, who are united together in real alliances, recognise each other by the epigraphic tattooing "T und L," which means *Thal und Land* (valley and country) ; words which they must exchange in a low voice when they meet each other, in order not to be denounced to the police. A thief R . . . , who has on his right arm a design representing two hands crossed, and the word *union* (unity) sur-

rounded by a garland of flowers, told us that this tattooing is extensively adopted by malefactors in the South of France (Draguignan). According to the revelations made to us by emerited Camorists, a lizard or a serpent denotes the first grade of this dangerous association.

I pass over in silence, and for good reasons, the tattooings spread over all the remaining parts of the body.

In the *Revista de Antropologia Criminal*, a new publication which has just appeared in Madrid, Mr. Sallilas has published an excellent study relative to the tattooing of Spanish criminals. According to him, this is a frequent custom among murderers. The predominance of the religious character is there noticeable, but always with the seal of lewd obscenity, universally observed. I have lately had occasion to verify up to what point the impulsion which leads criminals to inflict on themselves this strange operation, is atavistic. One of the most incorrigible thieves I have met, who has six brothers tattooed like himself, begged of me, notwithstanding he was half covered with the most obscene tattooings, to find him a professional tattooer who should complete what might well be called the carpeting of his skin. "When the tattooing is very odd and grotesque, and spreads over the whole body," he said, "it is for us thieves what the black dress coat and the decorated vest is to society. The more we are tattooed the greater is our esteem for one another; the more an individual is tattooed, the more authority has he over his companions. On the other hand, he who is not much tattooed enjoys no influence whatsoever with us; is not considered a thorough scoundrel, and has not the estimation of his fellows." "Very often," another told me, "when we visited prostitutes, and they saw us covered all over with tattooings, they overwhelmed us with presents, and gave us money instead of demanding it." If all that is not atavism, atavism does not exist in science.

Of this characteristic, of course, as of all the other characteristics of criminals, one may say that it is to be met with among normal people. But the chief thing here is its proportion, its commonness, and the exaggerated extent to which it is practised. Among honest, respectable people its peculiar complexion, its local

and obscene coloring, and the useless, vain, and imprudent display of crime are wanting.

Again, it will probably be objected that this is not psychology, and that only through the latter science can we trace out the picture of the criminal. I could well answer here, that these tattooings are really psychological phenomena. And I may add that Mr. Ferri, in the introductory part of his work on Homicides, has given us in addition to a real statistical psychology, an analysis of all criminal propensities and of their extent before and after the crime.

Among born criminals, for example, 42 in 100 always deny the crime with which they are charged, while among occasional criminals, and in particular among maimers, only 21 in 100 deny all; of the first 1 in 100, and of the second 2 in 100 confess their crime with tears; etc.*

CESARE LOMBROSO.

[Prof. Lombroso has in preparation for this series of criminological studies, an essay on the physiognomy of the Anarchists.—ED.]

* *L'Omicidio*, Turin, 1890.