twenty other cases (19 *per cent.*) the intelligence was so very far below the average that they could only be reckoned as imbecile. Altogether 29 *per cent.* could be regarded as pathological in a neuro-psychic aspect. In analysing the nature of the psychic activities of the youths generally, it was found that considerably more than half were of active energetic type, and that nearly all the most intelligent belonged to this type.

The author finally seeks to define the respective influences of environment and inborn disposition. This problem is skilfully and impartially presented, and the subjects are divided into five graded groups from this point of view. The author points out that congenitally abnormal does not necessarily mean asocial. In 18 *per cent.* bad environment is regarded as the sole or chief factor in the causation; half of these cases are abnormal, but their abnormality appears to play little or no causative part. In 59 *per cent.* environment is found to possess predominant or considerable causative influence; in 82 *per cent.* inborn disposition was chiefly or solely responsible; in 46 *per cent.* both factors worked together. Gruhle believes that environment and inborn disposition can each produce a type of criminal which is psychologically equivalent. The sons of drunken fathers are in two-fifths of the cases normal, but in 56 *per cent.* of them the mental development is below the normal. In half the cases of drunkards' sons environment and disposition are regarded as equally causative. A considerable proportion of the children of abnormal parents, also, it is concluded, become delinquent, not through this heredity, but by environment. No single psychological character can be regarded as constituting an asocial individual; it is a combination of highly varied characters. There is not the slightest ground for supposing that the illegitimate possess any special or pathological disposition; the large part they play in delinquency is attributable to the environment in which they are usually placed. Delinquency becomes manifest rather earlier in town children, especially as truancy, loafing, etc. But in stealing as a first offence, and especially in moral offences, the country children come first. The country children generally seem more prone to serious offences.

Gruhle admits that his cases are too few for secure generalisations, and that at many points he is breaking new ground. But he points out that precise and methodic investigation is necessary to permit of comparison with subsequent inquiries, which may confirm or modify his conclusions. HAVELOCK ELLIS.

A Pioneer in Criminology: Notes on the Work of James Bruce Thomson, of Perth [1]. (*Trans. Perthshire Soc. of Natural Science, vol. v, Pt. 4, Dec.*, 1912.) *Lyell, J. H.*

Six years ago the author dealt with the biological aspects of the criminal, and gave a brief sketch of the school of Lombroso and his followers. He wished now to direct attention to the work of Dr. James Bruce Thomson, who in many ways forestalled the conclusions of his more brilliant contemporary, and whose writings have achieved a Continental fame, and have still an important practical significance.

[1] Also given as Presidential Address to Perth Branch British Medical Association, November 11th, 1910.

The rise of a true scientific interest in crime and criminals only dates from about the middle of last century. From time immemorial the criminal had been looked upon merely as an evil-doer, to be punished or put out of existence according to the heinousness of his offence. It was long, however, before the idea occurred to anyone that criminals formed a class of beings by themselves. The systematic investigation of criminality on a large scale was chiefly associated with the epoch-making work of the late Cesare Lombroso, which had for its object the consideration of the criminal in all his organic, biological, and psychological aspects. His idea was that criminality was not merely another name for human wickedness, but that it was rather a symptom of a deep-seated morbid process, having its roots far back in the past history of the race, and demanding attention, not so much from the metaphysical as from the pathological point of view. Lombroso, however, whose great work on the criminal was published in 1876, was not the first to approach the subject in a true scientific spirit. To Dr. James Bruce Thomson, first resident medical officer of the Perth Penitentiary, is due the honour of being one of the earliest to investigate these questions in a systematic and unprejudiced manner.

Dr. Thomson entered upon his duties at Perth in the year 1858. The large Penitentiary formed the general prison for Scotland, with accommodation for over 800 prisoners, and afforded the amplest scope for the observation of criminality. Dr. Thomson held his appointment until 1872, and during that fourteen years he wrote a series of important papers, which may justly be said to have rendered his name famous as one of the founders and pioneers of the science of criminal anthropology.

About the same time we found such men as Dr. Forbes Winslow, Dr. Nicolson and Dr. Maudsley interesting themselves in the study of the criminal; while on the Continent, Lauvergne, Despine and others had taken up the subject. Their writings have none of them attained the classical reputation of the works of Bruce Thomson. The reason for this was to be found in the remarkably clear and emphatic way in which Thomson expressed his views. His name was constantly referred to by present-day authorities, both British and Continental, as one of the first who grasped the fundamental problems of scientific criminology.

Thomson's writings consisted of a series of six papers in the *Edinburgh Medical Journal* for 1860–1861, entitled:

"Statistics of Prisoners, their Mental Condition and Diseases," and another series of four papers in the *Journal of Medical Science* for 1866, 1867, and 1870, entitled:

(1) "The Effect of the Present System of Prison Discipline on the Body and the Mind."

(2) "The Criminal Lunatics of Scotland." (Chiefly statistical.)

(3) "The Hereditary Nature of Crime."

(4) "The Psychology of Criminals."

The leading impression which Thomson derived from his study of prison life was that there is a criminal class, *sui generis*, constituting a distinct section of the community, with a "singular family likeness or caste," distinguishing it not only from the civil classes, but also from other criminal men. It should be clearly kept in mind that Thomson's

remarks did not apply indiscriminately to the whole crowd of prisoners who came under his observation. He fully recognised the obvious fact, that our cells contained a very heterogeneous assemblage of men and women, many of whom were simply unfortunates, and not deserving the name of criminals at all; while others belonged to the large class of occasional offenders, and in no sense to the criminal classes properly so-called. "The prisoners in Perth Prison," he told us, "amount to about one-third of the whole criminals in Scotland, and belong to the most depraved and abandoned classes. They have been oftener and longer under imprisonment, frequently are of hereditary criminal families—born and bred in crime—their sentences running from nine months upwards to life-long detention." But even amongst these he was able to separate out a certain number who differed from the rest in several important respects.

Thomson's doctrine of the criminal was summarised in the following five propositions:

(1) That there is a *criminal class*, distinct from other civilised and criminal men.

(2) That this criminal class is marked by peculiar physical and mental characteristics.

(3) That the hereditary nature of crime is shown by the family histories of criminals.

(4) That the transformation of other nervous disorders with crime in the criminal class also proves the alliance of hereditary crime with other disorders of the mind—such as epilepsy, dipsomania, insanity, etc.

(5) That the incurable nature of crime in the criminal class goes to prove its hereditary nature.

It might be said that in these remarkable conclusions we have the foundations of the modern science of criminal anthropology. The work of Lombroso and the great Italian and French schools was little more than an elaboration of doctrines almost precisely the same, brought into line with more recent biological theories, and treated according to the more exact ideas of present-day scientific investigation. Lombroso himself repeatedly referred to Thomson's observations, and acknowledged him as one of the masters and pioneers of criminology.

The central doctrine in Lombroso's teaching was, in a word, the existence of what he called the born or instinctive criminal—a person who represents a distinct type of humanity, being atavistic or reversionary to the savage and to primitive man in his biological relations, and exhibiting certain specific bodily and mental characters which distinguish him from his normal fellows and from other criminals. As regards physical characters, they were in the direction of deficiency or degeneration, such as were best seen in irregular development of the bones of the head and face. These, being among the most highly evolved and distinctly human parts of the frame, suffered, as it were, a reduction to a more primitive level, and this was accompanied by a degradation of the higher instincts acquired by long centuries of civilisation, and an emergence of the brute passions of bygone stages of savagery. From the very moment of its enunciation the conception of the instinctive criminal awakened the widest discussion, and the question whether or not there really exists such a human type, in

Lombroso's sense of the term, was still exercising the minds of experts.

He then discussed the main doctrine of what we may in a general sense call the Thomson-Lombroso school, viz. that of the existence of the specific criminal type, and inquiring how far we are justified in accepting it as a rule of belief and practice. It was clearly a question of great practical importance.

In the first place, it was no more absurd to admit the existence of the instinctive criminal than to admit his opposite, viz. the man of instinctively virtuous and honest disposition. We all readily acknowledged that there are innumerable men and women whose high moral character was as much an innate quality as fine physical health or intellectual capacity. On the other hand, we also knew that the world has always contained human beings essentially base, cruel, and wicked, born, as the phrase went, "with a double dose of original sin." The instinctive or born criminal in this sense was no mere figment of the imagination, but a commonplace of history and a familiar figure in the law courts and prison cells of all civilised nations.

The retort might be made that from this point of view the instinctive criminal was nothing more or less than a very bad man, and to try and make a specific type of him was mere scientific pedantry. The fact, however, which Lombroso and his school laid stress upon was that the moral delinquency of the typical criminal was so bound up with a depraved physical nature that he must follow out his evil destiny as by a law of necessity, his character being at the same time stamped upon his lineaments in a manner which could not be mistaken. From the stigmata of criminality, given their occurrence in any person, the conclusion might be drawn that the peculiar moral defects would also be present.

It had been an easy matter to criticise the doctrine of criminal stigmata. We now recognised them as merely the well-known signs of physical degeneration; and it had been proved over and over again that they were also to be found in many persons who exhibit neither marked weakness of mind nor vicious tendencies; and, on the other hand, that some of the most depraved and incorrigible criminals, far from betraying bodily abnormality, were distinguished by their fine physique and prepossessing countenances.

The question therefore resolved itself into an inquiry as to the relation subsisting between criminality and degeneration. Upon the latter subject a vast amount had been written, but unfortunately there was still some confusion of ideas as to what class of phenomena should be specially considered as degenerative in character. In a sense, a number of morbid processes were of the nature of a degeneration of the tissues, and many authorities still used the term for conditions acquired during the lifetime of the individual as the result of stress or toxic invasion. Acquired degeneracy, however, must be carefully distinguished from true degeneracy in the biological sense. The latter consisted in the presence of various deep-seated defects of a congenital or germinal origin, which placed the organism from the very start upon a lower plane of vitality and prevented it from attaining to the full development of the type. It was with reference to congenital degeneracy alone that we could rightly

speak of stigmata, and when these were many or conspicuous there could be no mistake in the matter. But to place undue importance, on the other hand, upon minute morphological changes as an evidence of degeneracy, was to ignore the fact that Nature often admits of large variations within the healthy limits of the type. When we had arrived at an exact definition of normal humanity, it would be easier to estimate what deviations were of a degenerative character.

While this was true, it was an indisputable fact that many criminals showed marked evidences of both congenital and acquired degeneracy. A large number of the true criminal class are weakly and deformed and diseased, stupid and awkward, ugly, or lazy, or shy, and so on. Having had to make a brief physical examination of every prisoner who has entered the Perth Penitentiary during the last seven years—over 16,000 men and women—the author had been struck with the poor condition of many of them. Deformities of all descriptions, the result of accident or disease, tubercular glands and sores, venereal disease in all its disgusting varieties, weaknesses of the heart and lungs, impaired digestion, different forms of malnutrition such as anæmia and alcoholic cachexia, tumours, hernias of the most aggravated degree, disfiguring skin diseases, and so on, marked out this motley crowd as belonging to the dregs and waste products of humanity, and proved the close alliance between gross physical disability and crime. This did not always mean, however, that the two conditions were necessarily related as cause to effect. The simple fact must be remembered that if a man could not earn his living because of some bodily disease or defect, he tended sooner or later to drift into pauperism or crime. The degenerate was an incapable, one of the great army of "the unfit" in the first place, and in many cases only secondarily, and often by mere bad luck, a criminal. When the degenerate happens to be born "with a silver spoon in his mouth," and was well looked after by his friends, he might remain all his life a perfectly innocent, though not necessarily a useful member of society.

The attempt of Lombroso and his school to erect the instinctive criminal into an anthropological type had turned out a failure. The main characteristic of the criminal was his crime. He might or might not be a degenerate, or his criminality might be considered in itself a minor form of psychical degeneracy. But as far as regards specific criminal stigmata, they could not be said to have real scientific value. On the other hand, the conception of the instinctive criminal as a purely psychological type was gaining ground. By freeing it from presupposed theories and factitious accretions we acquired a most comprehensive and useful category, into which we could bring a large class of men and women whose native bias to vice and crime was unmistakable. Whether we were to consider such persons, as Lombroso did, to be identical with what were known as "moral imbeciles," was a matter of opinion. We had the authority of Maudsley for the view that moral imbecility was "no mere medical crotchet," but a genuine mental derangement and closely allied to insanity. Those who denied its existence argue that it was impossible for a human being to be altogether devoid of the moral sense. But it might be said that absolute deprivation of either the moral or intellectual powers was not necessarily

implied in the term "imbecile." It is all a matter of degree. The fact that moral imbecility was far less often met with in asylums than in prisons had perhaps contributed not a little to the scepticism with which it was regarded by many authorities.

Viewing the instinctive criminal, therefore, as a being whose moral nature is imperfectly developed, whose intelligence is often deficient, and whose bodily frame is more or less debased, we may, in a general sense, identify him with Thomson's specific criminal class. He thought it was clear that modern criminal anthropology had over-stepped its mark in striving after too accurate scientific methods, and that it was safest to keep to generalities on such an elusive subject as the criminal.

The same might be said with regard to Thomson's third proposition, which dealt with the interesting question of the heredity of crime. It was absurd to imagine that any accurate study of family pedigrees could be made amongst the criminal classes. Many of them never knew their parents, or their brothers and sisters, the criminal classes being no more particular about the marriage law than about any other law of the land. No doubt many interesting genealogical trees were to be found in books on criminology, but they mostly represented exceptional cases, where means had been available by which personal information could be checked. A further difficulty arose from the fact that the development of the criminal instinct largely depended upon social environment and upbringing. Bad surroundings naturally fostered the propensity, while we could not doubt that many potential criminals were saved from themselves by a comfortable home and a sufficient income. Another point was that, owing to the irregular sexual relationships of criminals, and the long periods which they spend in prison, they could not perpetuate themselves to any great extent. Notwithstanding these considerations, there was strong reason for believing that criminals transmitted their evil propensities to their offspring. An interesting light was thrown on the subject by a recent article in the *Eugenics Review*, in which the origin of pauperism and vagabondism was traced to the intermarriage of undesirables, and the propagation of their defects from generation to generation in accentuated degree. "We believe," said the authors of the article, "that the greater proportion of undesirables would be found connected by a network of relationship, and that pauperism is probably recruited from a few thousand families." The defects which they show were described as "drunkenness, theft, persistent laziness, mental deficiency, or general weakness of character, manifested by want of initiative, or energy, or stamina"—in other words, the well-known characters of the criminal classes. It was, perhaps, premature to accept such statements as proved, in view of the perplexing difficulties—both biological and statistical—with which the subject of heredity had become surrounded. Nevertheless, the idea of the pauper and criminal classes being in a measure self-contained and self-propagative was consistent with many facts which were familiar to the prison official and the administrators of justice. Meanwhile, therefore, we might take these statements as confirmatory of Thomson's third conclusion.

With regard to Thomson's fourth proposition, the phenomenon had been so often observed as to be now beyond dispute. Asylum statistics were full of examples where the rapid extinction of a depraved stock

could be traced through a whole gradation of mental and physical diseases, showing how the germ-plasm in certain cases had become so vitiated that even repeated intermixture with a healthy strain failed to check the morbid tendency. These formed examples where, as Morel pointed out, the process reached such limits that humanity was preserved by its excess.

The incurability of crime in the criminal classes, which was the subject of Thomson's last proposition, forms the natural corollary to the whole study. "The fact," he said, "that time after time the criminal classes lapse into crime, and are rarely improved by any form of prison discipline, shows that crime (in the general) is a moral disease of a chronic and congenital nature, and intractable in the extreme." This conclusion has been confirmed over and over again since Thomson's time.[1] The objection, of course, might be made that the reason for the incurability of crime is that the right methods of correction and repression had not yet been discovered. To imagine that there could ever be a panacea for human depravity in any possible form of prison administration was a vain hope. The prison, to the end of time, must perform the primary function of punishment, and any reformatory element which was introduced must in the nature of things be a mere compromise. This did not, however, by any means exclude every laudable plan which philanthropy could devise for reclaiming the criminal. The incurability of crime was like the incurability of every other disease—it could not be absolutely proved till all attempts had failed to prove the opposite.

Thomson's suggestions were that measures must be taken to break up the caste and community of the criminal classes, long sentences of habitual criminals being necessary in order to lessen the number of offenders, while juveniles must be brought under very early training if we hoped to reclaim them. It was interesting to note that recent measures to a large extent embodied these very principles, but some time must yet elapse before their beneficial effects could be determined.

Thomson also taught that crime was nearly allied to insanity, and more and more we were coming to see that by making criminality a psychological study, we were more likely to arrive at rational conclusions. "There is little doubt," said Thomson, "that if medical testimony were received by judges, especially in regard to old incorrigible offenders, the law would recognise doubtful responsibility and a low state of intellect in many habitual criminals, to such a degree as to affect the sentences awarded." This statement, made forty years ago, might be compared with the general conclusion arrived at by the Société Général des Prisons of France in 1905(2). After a most elaborate collation of the opinions of innumerable authorities in different countries, it was almost unanimously agreed that "there exists a group of criminals of limited responsibility of which for the most part legislatures take no account; that it is necessary to apply special measures to this category of

(1) "It seems to be generally accepted," says Dr. Quinton in his book on *Crime and Criminals* (1910), "that a person who deliberately adopts crime as his profession, and earns his living by it, is to all intents and purposes a moral incurable, whom the criminal law cannot either reform or deter from crime" (p. 75).

(2) *Archives d'Anthropologie Criminelle*, 1905.

criminals, and while at the same time maintaining the principles of social defence and of intimidation by punishment, to isolate them until at least some notable improvement takes place in their condition."

The value of Thomson's work lay in the fact that he wrote from intimate personal knowledge of his subject, and he grasped in a remarkable way many of the fundamental problems of scientific criminology, and threw an interesting light upon their solution. J. R. LORD.

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5. Asylum Reports.

London County Asylums (continued from p. 142).—The late receipt of this report made it impossible to consider, in our last number, the most useful digest of the medical statistics, which Mr. Keene offers year by year. He does excellent service in so doing, and takes a good advantage of the information collected by his office. As he points out, there are now available the figures for a period of five years since the Association's new tabulation was adopted. Not only does the extension of gathering time add value to conclusions, but a series of five years enables a comparison to be made with the results of the Lunacy Commissioners inquiry into the results obtained in a similar series for all England. In addition, Mr. Keene has in several instances been able to compare London's more recent work with that of the whole period of its activities. He begins with a comprehensive table showing the broad movements of the last three decennia as well as those recorded since the first asylum was opened in 1831. This forms interesting reading, revealing as it does the changes in the tendencies of insanity. The percentage of recovery of London asylums during the critical period is 30·21; while that for the last ten years is 21·46. Since the admissions of the last ten years constitute nearly one-third of the total, the contrast in the recovery ratios is all the greater between the old days and the present time. The deaths tell the same tale, the percentage on the total under treatment for the full period being 34·68, and 27·36 on those cases during the last decennium. It is therefore not surprising to find that the number of cases of over ten years' standing tends to increase largely. The tendency to recover appears to be greater among the females, but that is discounted to some extent by the greater mortality among the males. As Mr. Keene points out, the number of females is still considerably larger than that of the males, but the disparity is waning. Compared with the sex-proportions of London generally, the residence-total shows considerably more females, but the proportion of admissions by sexes are nearly comparable with the general population statistics. This would appear to be a fact of some importance in the natural history of the disease. Dealing with the state of matters at the end of 1911, Mr. Keene puts it neatly thus: "Stated approximately, London contributed that year rather more than one-seventh of the total recoveries of England and Wales, while possessing one-fifth of the patients under detention, and showing one-sixth of the total direct admissions."

The combined "exits" by recovery and death, when stated in four-