

phenomena during life. Considering the great difficulties which beset such enquiries, it appears to be our duty to carefully consider all cases like the present, where we have unusual combinations of nervous diseases, as we may thereby obtain some hint which, when worked out, may lead us to a more successful method of studying mental phenomena and of examining nervous structures.

An Address on Medical Psychology. By HENRY MAUDSLEY, M.D., F.R.C.P., Professor of Medical Jurisprudence in University College; President of the Section.

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In beginning the work of this Section, over which I have the honour to preside, I shall confine myself to a few introductory remarks of a general character, leaving to those who will come after me the more exact scientific work of which we have fair promise in the papers that are to be read. The occasion seems fitting to take a short survey of the position of medical psychology in relation to certain important questions of the day, and to consider the bearing which its progress must eventually have upon them. Permit me, then, to ask you, first, to look back a little way at what medical psychology was, in order the better to realise what it is, and, if possible, to forecast something of the character of its future work. A glance at the past will show how great a step forward has been made, and may yield some reason for congratulation; a glance at the present, showing, as it cannot fail to do, how small a proportion the gains bear to what remains to be acquired, will prove that as yet we have rather discovered the right path than made much way on it—that we are, in truth, only on the threshold of the history of medical psychology as a science.

One of the saddest chapters in human history is that which describes the cruel manner in which the insane were treated in times past. Notwithstanding that it is happily a thing of the past, it will not be without profit to inquire from what causes the barbarous usage sprang: for it was not common to all nations and all times; on the contrary, it had its birth in the ignorance and superstition of the dark ages of

Christian Europe. Whatever may have been thought of madness among the peoples who preceded the ancient Greeks—and there is evidence that the Egyptians adopted a singularly enlightened and humane treatment—it is certain that the Greeks had comparatively sound theories of the nature of insanity as a disease to be cured by medical and moral means, and adopted principles of treatment in conformity with those theories. Their dramatic poets, it is true, present terrible pictures of madmen pursued by the anger of the gods; but these were poetical representations, which must not be taken as a measure of the best knowledge of the time. Then, as now, and indeed, as ever in the history of mankind, the true thinkers were emancipated from the fables and superstitions of the vulgar: the just measure of Greek intellect must be sought in the psychology of Plato, in the science of Aristotle, and in the medical doctrines of Hippocrates. This eminent physician and philosopher expressly repudiates the notion that one disease is of more divine origin than another. After saying that the Scythians ascribe the cause of certain disorders to God, he goes on to give his own opinion that these and all other disorders are neither more nor less of divine origin, and no one of them more divine or more human than another; that each has its own physical nature, and that none is produced without or apart from its nature. In what he says of the psychical symptoms of various diseases of the body he evinces such enlarged views of the scope of medical observation and practice as are not often evinced at the present day; and the few observations in his works respecting the symptoms of delirium “evidence that clear and correct view of disease which has made this first observer a model to all succeeding times.” He directs attention to such facts of observation as the physical insensibility of the insane, the appearance of mental diseases in the spring, the occurrence of disorder of the intellect after a continuance of fear and grief, the union of melancholy and epilepsy, the critical importance of hæmorrhoidal discharges in mania, the difficulty of curing madness which commences after the age of forty, and the like. And as there was no superstition in these doctrines, so there was no barbarism in his treatment, which was medical, and consisted principally in evacuation by the use of hellebore. But moral treatment was not unknown among the Greeks; for Asclepiades, who seems to have been the real founder of a psychical mode of cure, made use of love, wine, music, employment, and special means to attract

the attention and exercise the memory. He recommended that bodily restraint should be avoided as much as possible, and that none but the most dangerous should be confined by bonds. Without going further into particulars, enough has been said to show that the Greeks had acquired accurate notions of madness as a disease, which was to be cured by appropriate and moral treatment.

How came it to pass that these enlightened views ever fell into oblivion? The question is really only a part of the larger question, how it came to pass that the high æsthetic culture and brilliant intellectual development of the Grecian era, which might have seemed possessions of mankind for ever, were lost in the darkness and barbarism of the middle ages. To trace the causes of this so sad decline would be far beyond my present purpose; suffice the fact that philosophy, which had mounted so high, was for a time sunk so low beneath the waves of superstition and ignorance, that it might well have never been in existence. And when at last a revival of learning took place, things were little better; empty scholastic subtleties and metaphysical mysticism engaged the whole attention of men, who rivalled one another in verbal disputations, without agreement in the meaning of the terms they used, and in blind worship of the authority of Aristotle, without real regard to the true method of his philosophy or to the facts with which it dealt. As if knowledge were nothing more than a process of ingenious excogitation, they made no attempt to observe the phenomena of Nature, and to search out the laws governing them, but laboriously "invoked their own spirits to utter oracles to them"—wherefore philosophy was little more than a web of unmeaning terms and of empty metaphysical subtleties.

With this sort of intellectual activity was joined, as the result of the detestable spirit which inspired monastic teaching and monastic practice, a harsh religious asceticism, through which the body was looked down upon with contempt, as vile and despicable, the temple of Satan, the home of the fleshly lusts which war against the soul, and as needing to be vigilantly kept in subjection, to be crucified daily with its affections and lusts. It was the earthly prison house of the spirit whose pure immortal longings were to get free from it. Such was the monstrous doctrine of the relation of mind and body. What place could a rational theory of insanity have in such an atmosphere of thought and feeling? The conception of it as a disease was impossible: it was ascribed to a super-

natural operation, divine or diabolical, as the case might be—was a real possession of the individual by some extrinsic superior power. If the ravings of the person took a religious turn, and his life was a fanatical practice of some extraordinary penance—if, like St. Macarius, he slept for months together in a marsh, exposing his naked body to the stings of venomous flies; or, like St. Simeon Stylites, he spent the greater part of his life on a pillar sixty feet high; or, like St. Anthony, the patriarch of monachism, he had never, in extreme old age, been guilty of washing his feet—he was thought to have reached the ideal of human excellence, and was canonised as a saint. More often his state was deemed to be a possession by the devil or other evil spirit, or the degrading effect of a soul enslaved by sin. From some cause or other he was a just victim of divine displeasure, and had been cast down in consequence from his high human estate.

It was the natural result of such views of insanity that men should treat him whom they believed to have a devil in him as they would have treated the devil could they have had the good fortune to lay hold of him. The tortures which the insane suffered from the devils that had entered into him were less than those inflicted by the devils who took charge of him. When he was not put to death as a heretic or a criminal, he was confined in a dungeon, where he lay chained on straw; his food was thrown in, and straw raked out through the bars; sightseers went to see him, as they went to see the wild beasts, for amusement; he was cowed by the whip, or other instrument of punishment, and was more neglected and worse treated than if he had been a wild beast. Many insane persons, too, were without doubt executed as witches, or as persons who had, through witchcraft, entered into compact with Satan. It is a striking illustration, if we think of it, of the condition of thought at that time, and of the great change which has taken place since, that such expressions as the black arts, witchcraft, diabolical possession, and the like, have fallen entirely out of use, and would be thought to convey no meaning if they were used now. They were fictitious causes invented to account for facts, many of which undoubtedly lay within the domain of madness.

Now it is a fact, abundantly exemplified in human history, that a practice frequently lasts for some time after the theory which inspired it has lost its hold on the belief of mankind.

No wonder, then, that the cruel treatment of the insane survived the belief in diabolical possession, though it is justly a wonder that it should have lasted into this century. The explanation of the seeming anomaly is to be sought, I believe, in the purely metaphysical views of mind which prevailed long after inductive science had invaded and made conquests of other departments of nature. Theology and metaphysics, having common interests, were naturally drawn into close alliance, in order to keep entire possession of the domain of mind, and to withstand the progress of inductive inquiry. With the notions they cherished of the nature of mind, and of its relations to body, it was thought impossible, and would have been denounced as sacrilegious, to enter upon the study of it by the way of physical research. To have supposed that the innermost sanctuary of nature could be so entered through the humble portals of bodily functions, would have been regarded as an unwarrantable and unholy exaltation of the body, which was full of all uncleanness, corruptible, of the earth earthy, and a gross degradation of the mind, which was incorruptible, of the heaven heavenly, and joint partaker of divine immortality. Whosoever had dared to propound such a doctrine would assuredly have been put to death as a blasphemer and a heretic. And yet he ought to have been hailed as a benefactor. It is impossible to say of any false belief which mankind have had that it has been the most pernicious in its effects; but we may truly say of the theological notion of the relations of mind and body that it has been surpassed by few false doctrines in the evil which it has worked.

The spirit of metaphysical speculation was scarcely less hostile to physical researches into mental function. For when inquirers had struggled successfully out of mere verbal disputation, and had applied themselves to the observation of mental phenomena, the method used was entirely onesided; it was a system of mental introspection exclusively, each one looking into his own mind and propounding as philosophy what he thought he observed there; the external observation of mind in all its various manifestations, and of the bodily conditions of all mental action, was ignored. When all knowledge of mental action was gained in this way by observation of self-consciousness, men naturally formed opinions from their own experience which they applied to the mental state of insane persons; feeling that they themselves had a consciousness of right and wrong, and a power of will to do

the right and forbear the wrong, they never doubted that madmen had a like clearness of consciousness and a like power of will—that they could, if they would, control their disorderly thoughts and acts. The dungeon, the chain, the whip, and other instruments of punishment were accordingly in constant use as means of coercion, the result being that exhibitions of madness were witnessed which are no longer to be seen, “because they were not the simple product of malady, but of malady aggravated by mismanagement.” What with the theological notion of madness as a work of Satan in the individual, and what with the erroneous views of it subsequently begotten of the metaphysical spirit, it came to pass that the barbarous system of treatment was only abolished within the memory of men yet living. In sad truth may we say that so far as a knowledge of the nature of insanity and of the proper mode of treating it is concerned, mankind owe no thanks, but, on the contrary, much error and infinite human suffering, to theology and metaphysics.

It was when men recognised insanity as a disease which, like other diseases, might be alleviated or cured by medical and moral means—when they regained the standpoint which the ancient Grecians had held—that they began the struggle to free themselves in this matter from the bondage of false theology and mischievous metaphysics. So far as the phenomena of deranged mind reach, the battle has been won and the victory is complete; no one whose opinion is of any value pretends now that they are anything more than the deranged functions of the supreme nervous centres of the body. But the victory is not yet complete along the whole line of mental function; there is the strongest desire evinced, and the most strenuous efforts are made in many quarters, to exempt from physical researches the highest functions of mind, and particularly the so called moral sense and the will. The moral sense is, indeed, the stronghold of those who have made strategical movements of retreat from other defensive positions which they have taken up; and it is from this stronghold that what are deemed the most telling arguments against the Darwinian doctrine of physiological evolution have come. Are we, then, as physiologists, to allow an exemption from physical research to any function of mind, however exalted, or shall we maintain through good and through evil report that all its functions, from the lowest to the highest, are equally functions of organisation? A vital question for us as

medical psychologists, which we must, sooner or later, face boldly, and answer distinctly.

In Abercrombie's well-known and valued work, "Inquiries concerning the Intellectual Powers," there is a striking passage relating to the moral sense which seems to me almost melancholy. After pointing out clearly the existence of a moral insanity in which every correct feeling is obliterated in regard to moral relations, while the judgment is sound in all other relations, and so demonstrating that the influence of the moral principle on the power of conscience may be weakened or lost, while reason remains unimpaired, he says: "That this power should so completely lose its sway, while reason remains unimpaired, is a point in the moral constitution of man which it does not belong to the physician to investigate. The fact is unquestionable; the solution is to be sought in the records of eternal truth." Is not this passage truly melancholy? Must science really accept this attitude of helplessness? Must the physician who has to deal practically with these instances of moral insanity forbear for ever to investigate its nature and causation? So far from assenting to such an exclusion, I hold that there is no *sanctum sanctorum* in science, and that it distinctly belongs to the physician to seek for the solution of the problem in the discovery of those laws of nature which are to him the incontestible records of eternal truth.

Let us clearly apprehend the problem which we have to consider. Some popular capital has been made, and made in quarters where we might justly have looked for greater sincerity or sounder apprehension, out of the fact that physiology, however far it may advance, can never bridge over the gap between nerve elements and mind, can never leap from the movements of nerve molecules to consciousness. No one has ever said that it could; the problem before us as scientific observers is not to demonstrate the real nature of the force which we designate mental, nor to show how and why certain molecular movements in nerve become, if they do become, sensation or idea, but it is to trace here, as in other departments of nature, uniformities of sequence, to point out that certain sequences are, within our experience, the invariable consequences of certain antecedent conditions. The *how* or the *why* is a mystery which we do not pretend or attempt to explain; we do not even aspire to know it. We can only know the uniformities of sequence as we do the uniformity of sequence which we call gravitation. What is the actual

power which makes one body attract another directly as the mass and inversely as the square of the distance, we have not the least knowledge; why and how certain molecular movements become heat, or electricity, or chemical action, we are just as ignorant; and in admitting that we cannot comprehend how certain states of matter occasion certain states of mind, we may rightly demand that no more should be asked of the physiologist, in explanation of the *why* of events, than is asked of the physicist. The mystery is neither more nor less in one case than in the other. To say that it is inconceivable that matter, in however complex a state of organisation, should generate consciousness, should feel and think, is simply an appeal to the self-sufficiency of human intellect at the present day, and a sort of argument which, if logically carried through, would bar any new conception of what, from ignorance, is yet inconceivable to us; it would make the present limit of conception the limit of conception for ever; and it is certainly unwarrantable in the face of the fact that the history of the progress of knowledge is, in great part, a history of the inconceivable becoming conceivable. Moreover, it is an assertion which is positively contradicted by the testimony of persons who have been presumably in their right minds, and who have not spoken in mere haste and ignorance. Let me instance that of one person, whose qualifications few will contest—I mean John Milton. Both in prose and poetry he makes known his opinion that matter is capable of intellectual functions, declaring, in “*Paradise Lost*,” that the first matter rises through various degrees of substance and of life, until “body up to spirit works,” just as from the root springs lighter the green stalk, from thence the leaves, and, “last, the bright consummate flower spirits odorous breathes.” That he intended this passage not merely as poetry, but as sound philosophy, is proved by what he says in his “*Treatise on Christian Doctrine*,” where he declares—“That man is a living being, intrinsically and properly one and individual, not compound or separable, not, according to the common opinion, made up and framed of two distinct and different natures, as of soul and body,—but the whole man is soul, and the soul man; that is to say, a body, or substance, individual, animated, sensitive, and rational.” The notion of matter being capable of thinking was clearly then not inconceivable to Milton; and there can be no doubt that there always have been persons who have found it more conceivable than the notion of spirit entirely distinct from body, having no rela-

tion to it, and yet acting upon it in every thought, feeling, and act of life.

With these general remarks, by way of necessary caution, let me come to the particular problem which we have to face—namely, whether there is the same essential connexion between moral sense and brain which there is between thought and brain, or between any of our special senses and its special ganglionic centre in the brain? Is conscience a function of organisation? I will ask you to look without prejudice at the facts of observation, and to consider if they admit of any other scientific interpretation. For the medical psychologist, whose duty brings him into constant intercourse with facts, cannot rest satisfied with vague speculations; he is bound to investigate the phenomena as they present themselves to observation, and to form conclusions from them, without regard to accepted theories of faith or knowledge; and if he arrives at sound conclusions from such observation of facts not before observed, these will not contradict old faiths unless in that wherein old faiths are wrong, and it is right they should be contradicted. His generalisations, like the generalisations of astronomy, chemistry, or any other branch of science, must rest on their own merits; they cannot justly be tested by any preconceived standard of truth, however much hallowed by antiquity or sanctioned by authority.

When we come to deal with examples of moral degeneracy whether among the insane or among criminals, we perceive, at once that it is not sufficient to ascribe immorality to the devil; that we must, if we would not leave the matter a mystery, go on to discover the cause of it in the individual. The effect defective comes by cause, we are constrained to believe; what is the cause and what are the laws of moral degeneracy? As society is constituted, certain forms of evil-doing are certainly not profitable in the long run; how comes it, then, that an individual, capable of looking before and after, remembering the retribution of past sin, and foreseeing the Nemesis that waits on future wrong-doing, is so forgetful of true self-interest as to yield to evil impulses? And whence do these impulses come? One thing is certain, that moral philosophy cannot penetrate the hidden springs of feeling and impulse; they lie deeper than it can reach, for they lie in the physical constitution of the individual, and, going still further back, perhaps in his organic antecedents. Because the fathers have eaten sour grapes, therefore it often is

that the children's teeth are set on edge. Because the fathers had stoned the prophets, therefore it was that the children rejected Him who was sent unto them. Assuredly of some criminals, as of some insane persons, it may be truly said that they are born, not made; they go criminal, as the insane go mad, because they cannot help it; a stronger power than they can counteract has given the bias of their being. Those who doubt this when it is put in this positive form, will hardly continue to do so when they consider that between the drivelling idiot, equally destitute of intellect and moral feeling, whom no labour of training can raise to a human level, and the highest example of intellect and moral feeling, there are beings marking every step of the long gradation; that we may mount from entire absence of moral sense through every grade of deficiency up to its highest state of development. I do not dispute that much may sometimes be done by education and training to counteract in this respect the ills of a bad inheritance, but it is still true that the foundation upon which the acquisitions of education must rest are inherited, and that in many instances they are too weak to bear a good moral superstructure. Moral philosophy may make its hard and fast lines, and lay down abstract propositions concerning the power of the will in the conduct of life; but, when we have to do with concrete cases, it is plain that no such definite lines can be applied, and that the abstract propositions are only true of a certain proportion of mankind. Moreover, it appears also, that those of whom they are true have much less merit in the matter, and those of whom they are not true much less blame, than moral philosophers are apt to imagine and inculcate. The fate of inheritance which constitutes the misfortune of the latter constitutes also the virtue of the former. There is often *nulla imputatio* in one case, *nulla virtus* in the other.

The causes, course, and varieties of moral degeneracy are not then merely subjects for the moral philosopher or the preacher; but they are proper subjects for positive scientific inquiry. And if they be so investigated, it is not unlikely that the results may throw some light on the vexed question of the nature and origin of the moral sense. Now if there be a class of persons who are without the moral sense, who are true moral imbeciles, it is the class of habitual criminals. All observers who have made them their study agree that they constitute a morbid or degenerate variety of mankind, marked by peculiar low physical and mental characteristics.

They are scrofulous, often deformed, with badly formed angular heads, are stupid, sluggish, deficient in vital energy, and sometimes afflicted with epilepsy. They are of weak and defective intellect, though excessively cunning; and not a few of them are weak-minded and imbecile. The women are ugly in features, and without grace of expression or movement. The children, who become juvenile criminals, do not evince the educational aptitude of the higher industrial classes; they are deficient in the power of attention and application, have bad memories, and make slow progress in learning; many of them are weak in mind and body, and some of them actually imbecile. At the end of the best part of a life spent among prisoners, a prison surgeon declares himself to be mainly impressed with their extreme deficiency or perversion of moral feeling, the strength of the evil propensities of their nature, and their utter impracticability; neither kindness nor severity availing to prevent them from devising and doing wrong day by day, although their conduct brought on them further privations. Their evil propensities are veritable instincts of their defective nature, acting, like instincts, in spite of reason, and producing, when not gratified, a restlessness which becomes at times uncontrollable. Hence occur the so-called "breakings-out" of prisoners, when, without apparent cause, they fall into paroxysms of excitement, tear their clothing and bedding, assault the officers, and altogether behave for a time like furious madmen.

We may take it, then, on the authority of those who have had the best opportunities of observation, that there is a class of criminals formed of beings of defective physical and mental organisation; one result of the defect, which really determines their destiny in life, being an extreme deficiency or complete absence of moral sense; that an absence of moral sense may be a congenital vice or fault of organisation. The experience of medical practice certainly confirms this view. From time to time we are consulted about perplexing cases of what might be called moral insanity, or, more properly, moral imbecility, in children of the better classes. Though born in good circumstances of life, and having every advantage of education, they cannot by any care or training be made to learn and behave like other children; they display no affection whatever for parents, brothers, or sisters, and no real appreciation of the difference between right and wrong — no love for the one, no remorse for the other; they are inherently vicious, and steal and lie with a skill that it is

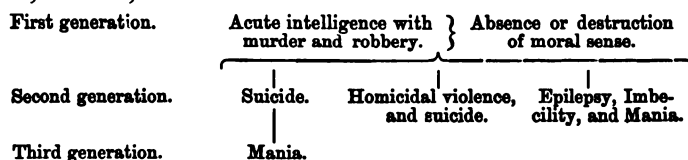
hard to believe could ever have been acquired—are, in fact, instinctive thieves and liars; everything that their vicious nature prompts them to desire is for them right, and they exhibit a remarkable cunning in gratifying their evil propensities; they are the hopeless pupils of any master who has anything to do with them, and are sure to be expelled from every school to which they may be sent. In the end, all those who have to do with them are constrained to ascribe to defect what at first seemed simple badness. Now what we commonly find in these cases, when we are able to push satisfactory inquiry into their hereditary antecedents, is that they come of families in which insanity or some allied neurosis prevails. This is the interesting fact to which I wish to draw attention.

In addition to the entire absence or perversion of moral sense, without feeling of remorse, which experience of habitual criminals brings prominently out, other important facts which we learn from an investigation of their family histories are, that a considerable proportion of them are weak-minded or epileptic, or become insane, or that they spring from families in which insanity, epilepsy, or some other neurosis exists, and that the diseases from which they suffer, and of which they die, are chiefly tubercular diseases and diseases of the nervous system. Crime is not, then, always a simple affair of yielding to an evil impulse or a vicious passion, which might be checked were ordinary control exercised; it is clearly sometimes the result of an actual neurosis which has close relations of nature and descent to other neuroses, especially the epileptic and the insane neuroses; and this neurosis is the physical result of physiological laws of production and evolution. No wonder that the criminal *psychosis*, which is the mental side of the *neurosis*, is for the most part an intractable malady, punishment being of no avail to produce a permanent reformation. A true reformation would be a *re-forming* of the individual nature; and how can that which has been forming through generations be *re-formed* within the term of a single life? Can the Ethiopian change his skin or the leopard his spots?

The hereditary kinship which is sometimes traceable between crime and insanity I cannot now set forth in detail; but, to make clear what I mean, I may give one or two illustrations out of many of a like kind which might be brought forward. Of five children from an insane mother and a drunken father, one was suicidal, two suffered imprisonment

for crimes, one daughter was insane, the other was imbecile. Suicide, crime, insanity, and imbecility, were thus different manifestations of a morbid type in the second generation. The case of Christiana Edmunds, who was convicted of murder, and afterwards reprieved and sent to Broadmoor, will be fresh in your recollection. Her father died raving mad in an asylum; her brother died epileptic and idiotic at Earlswood; her sister suffered from mental excitement, and once attempted to throw herself out of a window; her mother's father died paralysed and childish; a cousin on the same side was imbecile; she herself had been subject to somnambulism in childhood, had suffered from hysteria later in life, and had finally had an attack of hemiplegia; and at the time of her trial her face, drawn to one side, showed the effects of the hemiplegic attack from which she had suffered. I had more than an hour's conversation with her in Newgate, and at the end of it two convictions were firmly planted in my mind; the first, that she had no real moral appreciation of the nature of her crime, and no shadow of a feeling of remorse with regard to it; the second, that she would have poisoned a whole city-full of people, if it had lain in her way to do so, without hesitation, compunction, or remorse. Nevertheless, her intellect was acute, certainly above the average, and showed no signs of disorder. I could only regard her case as a strong confirmation of an opinion which I had elsewhere expressed, and which I believe to be a just conclusion from facts; namely, that one occasional result of descent from an insane family is a nature entirely destitute of moral sense—congenitally defective in that respect—whereby the individual is as insensible to the moral relations of life as a person colour-blind is to certain colours. I give no opinion here as to the legal policy of treating such a person as of sound and responsible nature; it is a subject beset with difficulties, and many considerations on which I cannot enter now would have to be taken into account; but I may justly ask you, as scientific men, whether you would pronounce a person with such hereditary antecedents and such personal ills, accountable in the same sense or same degree as one of us? For my part, when one thinks of the terrible affliction which an unsound mental organization is, and what a reason for devout thankfulness a man of sound descent and nature has, I would rather pray with the Arabian philosopher, "O God! be kind to the wicked; to the good thou hast already been sufficiently kind in making them good."

One example more shall suffice to exhibit the alliance between degenerate types; it shows the effect of crime in one generation of a family upon the mental organisation of the following generations—shows, indeed, how the sins of the fathers are visited upon the children unto the third and fourth generations. While the Reign of Terror was going on during the first French Revolution, an innkeeper profited by the critical situation in which many nobles of his commune found themselves, to decoy them into his house, where he was believed to have robbed and murdered them. His daughter, having quarrelled with him, denounced him to the authorities, who put him on his trial, but he escaped conviction from lack of proof. She committed suicide subsequently. One of her brothers had nearly murdered her on one occasion with a knife, and another brother hanged himself. Her sister was epileptic, imbecile, and paroxysmally violent. Her daughter, in whom the degenerate line approached extinction, became completely deranged, and was sent to an asylum. Here, then, is the sort of pedigree which we really want, if we are to judge of the worth of a family, the hereditary line of its vices, virtues, and diseases.



It may be said that this was an extreme and exceptional case. Without doubt it was an extreme case; but it is on that account the better fitted to produce an impression; and it must be remembered that the laws by which its results were worked out are laws which are continually at work in accomplishing less striking results, and that so-called exceptional cases in science are, when rightly studied, exceptionally useful in helping us to discover the laws for which we are searching. My argument is, that the moral element is an essential part of a complete and sound character, in the present state of human evolution; it was the last acquisition of development in the progress of *humanisation*, and it is commonly the first to suffer when degeneracy begins, and therefore its decay is the first sign of the commencement of such degeneracy. He who is destitute of moral sense is a defective being to that extent; he marks the beginning of race-degeneracy; and if better influences do not intervene to check

or neutralise the morbid tendency, his children will exhibit a further degree of degeneracy, and be actual morbid varieties. What shall be the particular outcome of the morbid strain—whether vice, or crime, or madness—will of course depend much on the circumstances of life; the inborn fact counts for much, but not for everything, in the result. Certainly, however, it is a conviction in my mind, produced by observation of instances, that one way in which insanity seems to be generated *de novo* in a family, is through the deterioration of nature induced by destruction of moral sense. As insanity in one generation may produce an absence of moral sense in the next, so, conversely, absence or destruction of the moral sense in one generation may be followed by insanity in the next.

No one who has had much to do with the treatment of the insane can have failed to notice the mental peculiarities sometimes exhibited by their near relations. And one way in which these are displayed is an extreme morbid suspicion of everything and everybody; in the most innocent actions of others they detect an unworthy motive, and seize on the evil interpretation. They torment themselves and others with the ingenuity of their suspicions. Secret ways and dealings they affect naturally and pursue systematically; however insane their relative may be, they can hardly be brought to see it, and if they do see it, they seem actually to persuade themselves that the doctors who have treated him, or those who have had the care of him, are responsible for his state. These moral peculiarities are constitutional; they are marks of one variety of the insane temperament, and, as such, are of interest to us in our present inquiry.

For the facts which I have thus far mentioned seem to me to prove the essential connexion of the moral sense with organisation, and to admit of interpretation only on that supposition. It, or the potentiality of it, is inherited by most persons, though some appear to be born without it; it is developed by culture; decays from disuse; and is perverted or destroyed by disease. The last acquired faculty in the progress of human evolution, it is the first to suffer when disease invades the mental organisation. One of the first symptoms of insanity—one which declares itself before there is any intellectual derangement, before the person's friends suspect even that he is becoming insane—is a deadening or complete perversion of the moral sense. In extreme cases it is observed that the modest man becomes presumptuous and exacting,

the chaste man lewd and obscene, the honest man a thief, and the truthful man an unblushing liar. Short of this, however, there is an observable impairment of the finer moral feelings—a something different, which the nearest friends do not fail to feel, although they cannot always describe it. Now, these signs of moral perversion are really the first symptoms of a mental derangement which may, in its further course, go through all degrees of intellectual disorder, and end in destruction of mind, with visible destruction of the nerve-cells which minister to mind. Is the end then dependent on organisation, or rather disorganisation, and is the beginning not? This course of degeneracy is but a summary in the individual of what we have already seen to take place through generations, and in both cases we are constrained to believe that the moral changes are as closely dependent upon physical causes as are the intellectual changes which accompany or follow them. If it be not so, we may bid farewell to all investigation of mental function by a scientific method.

Other arguments in favour of this view of conscience as a function of organisation—the highest and most delicate function of the highest and most complex development thereof—might be drawn from the effect of a severe attack of insanity on the moral feelings. The patient entirely recovers his reason; his intellectual faculties are as acute as ever, but his moral character is changed; he is no longer the moral man that he was; the shock has destroyed the finest part of his mental organisation. Henceforth his life may be as different from his former life as was the life of Saul of Tarsus from the life of Paul the Apostle to the Gentiles. An attack of epilepsy has produced the same effect, effacing the moral sense as it effaces the memory sometimes; and we are all familiar with the marked temporary change of moral character in the epileptic, which often precedes and heralds the approach of his fits. A fever or an injury to the head has in like manner entirely changed the moral character, and so also has habitual opium-eating or habitual drunkenness. The evil effects of these vices might of course be ascribed to the indulgence of passion and the degradation of the moral sense apart from physical causes; but the same cannot be said of the effects of a fever or of an injury to the head. Moreover, we know that alcohol and opium do affect the brain by their actual presence there, and through the brain the mind, just as strychnia affects the spinal cord and its functions; and we know also that it is in the natural order of events that con-

tinuance of perverted function should lead to organic disease. In the case of opium or alcohol, then, as in the case of a blow on the head, we believe the effect to be physical.

We are further strengthened in this conviction when we take note of the decided effects of such a vice as self-abuse upon the moral character, or of such a sexual mutilation as eunuchs have undergone. Long before self-abuse destroys the mind, it destroys moral energy and feeling, this effect being the precursor of the intellectual impairment which goes on to utter dementia in the worst cases. Of the moral character of eunuchs, all that we can briefly say is, that in most cases they have no moral character; their minds are mutilated like their bodies; with the deprivation of sexual feeling, they are deprived of all the mental growth and energy which it directly or remotely inspires. How much this is, it would be hard to say; but were man deprived of the instinct of propagation, and of all that mentally springs from it, I doubt not that most of the poetry and perhaps all the moral feeling would be cut out of his life.

Before such an audience, it is not necessary for me to insist further on such facts as I have mentioned; as physicians we cannot fail to recognise them; but it is necessary for us, if we would be, like our great master Hippocrates, philosophers as well as physicians, to give them their proper place in a system of medical psychology, and to weigh their bearing on accepted philosophical theories. I had meant to point out how they go to prove the doctrine of evolution to be true of the highest mental faculties of man, including his moral sense; but I must refrain. Already I have trespassed too long on your patience. The medical psychologist must, I think, hold that the best of the argument concerning the origin of the moral sense is with those who uphold its acquired nature. That the sentiments of common interest in the primitive family and tribe, and the habitual reprobation of certain acts by individuals as injurious to the family or tribe, should finally generate a sentiment of right and wrong in regard to such acts, and that such sentiment should in the course of generations be transmitted by hereditary action as a more or less marked instinctive feeling, is in entire accordance with what we know of the results of education and of hereditary action. Time was, we know, when men wandered about the country in families or tribes. In order that they might rise from this nomadic state to a national existence, the acquisition and development of a moral sense must clearly

have been essential conditions—not, however, as preformed agents, but as concomitant effects, of evolution. This development is still going slowly on; but the proof how little moral sense itself instigates progress is seen in the absence of it between nations. Men have risen to a national existence, but they have not yet risen to an international existence. With moral principles that have not changed within historical times, nations still laud patriotism, which is actually a mark of moral incompleteness, as the highest virtue; and statesmen think it a fine thing to sneer at cosmopolitanism. But it cannot be doubted that the time will come, though it may be yet afar off, when nations will know and feel their interests to be one, when moral feeling shall be developed between them, and when they shall not learn war any more; it will come as a step in evolution and as a condition of universal brotherhood, not otherwise than as, coming between tribes, it bound them into nations, and made patriotism the high virtue which it is believed to be.

In the work of helping to trace the path of human evolution through the ages, a great function lies before a scientific psychology; and in investigating in our department thereof the characters of the various neuroses, and the causes, course and varieties of human degeneracy, which seem to be necessary retrograde accompaniments of progress, we medical psychologists have a vast field before us. To rise to a just conception of the scope and dignity of our work will be the best inspiration for entering on it, as is becoming, neither in an abject spirit of superstition nor in an arrogant spirit of conceit. For this we must not forget: that, however clearly we trace the order of events, the mystery of their *why* remains where it was; however clearly we may follow “one first matter” through

“its various forms, and various degrees
Of substance, and in things that live, of life,
* * * * *

Till body up to spirit works,”

the power which determines why one tissue should supervene on another, why life should tend upwards, which inspires and guides the everlasting becoming of things, must ever remain past finding out. Man himself, with all his sorrows and sufferings, with all his hopes and aspirations, and his labours wherewith he has laboured under the sun, is but a little incident in the inconceivably vast operations of that primal central power which sent the planets on their courses, and holds the lasting orbs of heaven in their just poise and movement.