

LANDOR. (H)

HYSTERIA IN CHILDREN

CONTRASTED WITH MANIA ;

READ BEFORE

*The Association of Physicians of Asylums, at the
Meeting held at Baltimore, May, 1873,*

BY

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FREE PRESS STEAM BOOK AND JOB PRINTING COMPANY, RICHMOND STREET,
1873.

HYSTERIA IN CHILDREN



CONTRASTED WITH MANIA.

The case of hysteria I brought before the meeting of the Association at Madison last year, gave rise to some discussion on points not fully considered by me before it was related. No previous intention existed on my part of alluding to the case at the meeting. It was only told to fill a vacant hour. It excited more attention than I supposed it would. I was asked pointed and searching questions on the responsibility for crime of a patient suffering under the symptoms described; and how the disease could be said to differ from acute mania.

With regard to responsibility for illegal acts committed whilst the disease exists, I imagine that responsibility would be determined on exactly the same principles as it is in cases of transitory disorder of the mind, or of continued impairment. Whatever disturbs the mind, whether fever, inflammation, mania, or hysteria, must, according to its amount and symptoms, more or less deprive the sufferer of responsibility for acts done whilst so afflicted. Each case must be left to the consideration it merits, and no general rule can be universally applicable. This is the very point I wished to state emphatically in my paper on Insanity in relation to Law.

Before deciding the differential symptoms of mania and hysteria, I think it will be advisable to say a few words on hysteria generally, and on the nature of reflex actions, and the

influence of the cerebral lobes over their manifestations. To use the words of my friend, the late Mr. Skey, of St. Bartholomew's Hospital, "It may be asserted with truth, that every part of the body may become, under provocation, the seat of an apparent disease that in reality does not exist. It assumes all the attributes of reality with an exactness of imitation which nothing short of accurate and careful diagnosis can distinguish from real disease. To give an example of the commonest kind: A knee joint has severe pain in it, which is aggravated by any movement. The temperature may be raised, and you leech, blister, paint with iodine, and use other violent remedies all to no purpose, because it is the nervous, not the vascular system which is involved." Sir Benjamin Brodie, a man of acute observation, who made diseased joints one of his especial studies, says, "I do not hesitate to declare that at least four-fifths of the female patients who are commonly supposed to labor under disease of the joints, labor under hysteria, and nothing else." "What has become," says Mr. Skey, "of all those cases of diseased spine that were so common a few years since, in every watering place in England. Girls and men in Bath chairs, wheeled about everywhere, strapped and ironed, and tortured with issues." Hysteria only was the matter, and they are cured now by tonics, stimulants and exercise. If there is in any one constitutional weakness from bad or deficient blood, some nervous disease will most probably arise, neuralgia, gastrodynia, or most likely, hysteria in the first instance, but after long continuance some more serious nervous disorder. If it simulates inflammation of some local structure, and should it unhappily be treated by depletion in any form, all the worse for the victim. Her or his case is by so much rendered problematical. The mental conditions of these young people, possessing low vascular and muscular systems, is one of great excitability long before paroxysms of hysteria occur. They are irritable, easily moved to tears or laughter, they play with excess of energy but are subject to fits of lassitude; and they are incapable of long continued

effort. Hysterical persons are in a state of reduced vigor from a low condition of health of the nutritive system. The disease is more common in females than in males, because the nervous system of females is more excitable in the healthy state, and is rapidly increased in irritability when they become unhealthy. (See Skey and Dr. Carpenter). The phenomena of hysteria are reflex. There is no disease in those parts that appear affected, whether in the form of local pain, or in that of mental disorder. The pain is probably due to irritation of the spinal ganglia, the mental disorder to irritation of the cerebral lobes, and the observed phenomena are purely reflex. The irritation that excites the cerebrum, or the ganglia, may be in the intestines, the uterus, or elsewhere, or it may be general, in the reduced powers of the system or the depraved circulation. The acuteness of the physician will have to determine these points. That quality which we term the "will" may be disordered, and frequently is in hysteria; and I take the will to be nothing more than the combined and concentrated action of our brains. It is judgment and action combined, and by constant and incessant practice, it arrives at nearly instantaneous decision. It is analagous to the sum of the educated moral faculties which we term conscience. It is like those conclusions of reflection, so rapid and accurate, and well combined, that we call the result sagacity. (See the lecture of Mons. Bernard, Professor of Physiology in the College of France, *Revue des deux Mondes*). Still the operation of the will is not immediate. The experiments, made in Germany, also stated in the essay of Mons. R. Radau bear on this subject. Thought (I condense his statements) never springs simultaneously under the influence of an external cause; an appreciable interval of time elapses, one or two tenths of a second, before an idea is aroused in consequence of an impression received by the brain. Impressions coming from without are not perceived at the very instant of their production. They travel along the nerves with a speed of from 60 to 90 feet in a second; equal to the speed of the hurricane, but very much less than that of a cannon ball. For instance, we are conscious

of an injury in the feet only after half a tenth of a second has elapsed. The commands of the will from the brain pass with no greater rapidity. Limbs do not instantaneously obey the motive thought. When a movement is provoked by a shock in any part of the body, the stimulus first travels to the brain, there a thought is developed; the will sends out an order; the order is conveyed to the limb, which is bidden to act. All these three acts require three separate durations of time, of an appreciable duration for each. In the human body the time is a trifle. But suppose the subject of an injury is a whale of 90 feet in length. A boat attacks it in the rear, and the harpoon is driven in; pain is sent to the brain (nearly 90 feet); a second is lost. The brain returns the order to the tail to strike the boat. A trifling amount of time is used by the brain in forming the will to send this order; but the order has to travel from the head to the tail, and another second is lost. In two seconds the boat has backed astern and got out of reach. Thus the length of the animal is the chief cause of the impunity of whalers in such circumstances. Similar acts are measured by the chronoscope, and skilled observers like Dr. Jaeger and Dr. Hirsch have found that the brain requires $\frac{20}{100}$ intervals to form its decisions between the arrival and departure of its information and its orders. These reflections and experiments show that time is necessary to form conclusions and acts of will by the brain, and the brain is the organ from which the will emanates.

I will next allude to some experiments of Mons. Onimus, on nervous control, with a view of showing how the presence of the cerebral lobes, or their absence, is associated or dis-associated with the actions of animals. If the cerebral lobes are removed in animals the movements which were possible before are not put an end to, they take on particular characters. They are more regular, because they are deprived of *mental* influence. The animal is a locomotive apparatus without restraint. But their being no brain to originate will, the animal

cannot start without help or excitement. The pigeon must be thrown into the air or it will not fly; the frog must be put into the water, and started, or it cannot swim. The experimenter can determine such an act for the animal, limit it, arrest it, or give it any required direction. The movement, once given, will continue until some object interferes. The frog swims straight on until stopped by the edge of the water. The pigeon flies until it encounters something; so with the duck or goose in swimming. In fact, the animal is inert living matter, unconscious, and the creature of external excitements. Deprived of both lobes it is inert until excited. Deprived of one, like the duck with one pellet in its head, the movements are rotatory. I have related these facts of Mons. Onimus, to show experimentally how, when the cerebral lobes are removed, no excitement is originated by the animal. It must be subjected to external impulses, as a substitute for the will and the mind. I will now say a few words on the nature of the connection between the cerebral lobes, the spinal ganglia and the actions of the individual in the natural, and in the excited state arising from disease. I cannot do this better than by condensing some of Dr. Carpenter's ideas on the "Unconscious Action of the Brain." The act of breathing is a pure reflex action, and goes on when we are unconscious of exerting any effort. Most reflex actions are, to a certain extent, under the control of the will. Without this control, as to respiration, no long speech could be made, because we are able to regulate our breath so as to make it subservient to the act of speech, but only to a certain point. No long sentence can be uttered without pausing to breathe, but still we have control over the act of respiration for the purpose of speech. This is an illustration of the way mental operations may be independent of the will, yet be under its direction.

These reflex actions of the spinal ganglia are instinctive actions. The tendency to them is born with us. There are others to which we are trained, and we act through the process

of bodily education, as unconsciously, methodically and regularly as in the more purely reflex actions. Take the act of walking. We all know that the child has to be taught this act, often with difficulty and time, yet when once acquired it is as automatic as the act of breathing. We start on a walk and our minds are occupied with earnest thought, and our legs continue their automatic movements without any conscious act of will. What stimulates the spinal ganglia? The mere act of the foot touching the ground conveys the stimulus to the spinal ganglia. The order is sent out to raise the foot and advance the limb for another movement, whilst the brain is occupied in operations of its own, and is unconscious of the action of the spinal ganglia. The great ganglia of the senses, seated at the base of the skull, also convey their orders to their respective nerves, in obedience to the commands of the grey matter of the cerebral surface sent by direct fibres to those ganglia. The great organ of thought, and its complete sum the will, sends its directions to its servants, and receives its impressions through those servants after an appreciable interval of time for its working. As these operations are carried on in the healthy state, so are they in the diseased, and that control which the will has in part over natural reflex actions, it is the duty of the physician to encourage over hysterical reflex actions, and this persevering encouragement is the true method of cure of hysteria.

Physiologists inform us of the wonderful energy and power of corpuscular aggregations of bioplasm (the living basis of structure); how they enter into the formation of all animal material, and into that of cerebral structure amongst others; how their abnormal movements may give rise to disease and all its subsequent manifestations. It is therefore exceedingly possible that abnormal action of bioplasm in the grey matter of the brain causes the various forms of insanity, according to the locality affected, and the nature of the departure from healthy action; mania in one form; dementia in another; idiocy in another. These derangements of bioplasm may be temporary,

lasting for but a short period, give place to healthy movements, and again become deranged, and so account for recurrent mania, and its intervals of soundness. In mania these changes in action of matter may take place, whilst in hysteria there may be no such changes, and the grey matter be only subject to irritation, from the deranged state of the circulation, its poverty of healthy material, or some alteration of its qualities. Or the hysteria may be caused by irritation of some other part of the ganglionic system, reflexly acting on the cerebrum. Whatever explanation is attempted, I think the cerebral symptoms are due to reflex action in hysteria, but to altered bioplastic arrangements temporary or permanent in mania. No doubt, long continued irritation may pass into an alteration of structure, and in hysteria may pass into mania.

Suppose we imagine an illustration of these ideas. In the case of a wound in the hand, the seat of pain is in the hand, but the recognition of pain is in the cerebral lobes, for if the nerves to the hand are severed, the pain is not recognized by the cerebrum. Now, suppose there is no injury in the hand, but that the origin of the same nerves in the spinal ganglia is irritated by disordered blood; then the pain is felt in the hand although no injury exists there, and the cerebral lobes recognize reflexly the irritation in the spinal ganglia. Why irritation should be confined for a time to one ganglia, I know not, except that it is so, and that apparently it changes to some other ganglia as often as the pain flits from one part to another. But then, I am equally unable to tell why the pain in acute rheumatism flits from joint to joint, although I know it does so. Suppose, however, that the irritation is general, as it was in this child, then the cerebral lobes are affected also, and symptoms of mental disturbance show themselves in addition to hysterical pains. This seems to me a fair statement of the facts and symptoms as they were seen in this child, and are seen in similar cases. Whether the theory is sound is another question. But theories are justifiable so long as they explain the pheno-

mena. When they cannot, they must be abandoned. The emission theory of light explained all the known phenomena for 100 years. When it could do so no longer it had to be abandoned for the undulatory. This is an illustration of the use of theory.

I take the case of the child, related by me at Madison, as one typical of hysteria in early youth. She was in poor health, ill nourished, thin blood, weak, and she looked half starved. She would not move nor use her limbs; she was always talking nonsense; always complaining of pain somewhere, which lasted longest when attention was called to the locality. She slept at night; she thought white colors, black, and black, white, for a long time. She ate well in quantity, but often not the food most nourishing for her. She would shriek when she saw the hand approaching the seat of her fancied pain, but when not observing the hand, any extent of pressure could be borne. She got well when her bodily health became sound, and has continued well up to this time. Where do these symptoms differ from mania? First, in their evanescence. They are excessive whilst they last, but they change daily or oftener. They are violent, but quickly soften down. She slept well nightly; maniacal sufferers do not. Hysterical patients thoroughly understand all that is said to them; maniacal do not. The former give some attention, more than they appear to do, to the physician's words; maniacal rarely give any. In maniacal people the form of violence in words or acts is continuous, for the most part whilst the attack lasts. In hysteria no one can tell whether the morrow will be like to-day, most probably not. Pain, when felt in mania, is felt when the attention is directed to the part or not; the reverse is the case in hysteria. In hysteria, there is often obvious cause for the mental irritability, either in disease, or in altered function, or in irritating substances elsewhere than in the brain; mania exists without such obvious causes, although it often accompanies poor blood and feeble constitutions; and hysteria *may* also exist without obvious

cause, yet rarely. The action on the brain is irritation, not change, irritation so general as to disturb the sum of the action of the organ. The will is disturbed as well as the intelligence. I have been contrasting hysteria in children under puberty with mania in young people over puberty ; for although I have seen, in the last twelve years, a few cases of hysteria in children where the mind was involved, I have seen no cases of mania under puberty, nor earlier than 16 years of age. No doubt, in populous cities there are numerous cases of hysteria in children, which are not often found in small country towns where there are not the same unhealthy modes of life.

I will now refer to some observations of Dr. Gray. He denies the distinctive differences of these two diseases, but in the cases he referred to, he took his examples from those who had been long suffering under their symptoms, which had gradually come on, and had developed by degrees into insanity. But, notwithstanding his denial of any distinctive differences, I find that he admits that there is hysteria without insanity, and therefore he must draw the line for himself. In the 240th page of the October Number of the Journal, 1872, he has drawn a very marked line. He there says, hysteria is "a well marked nervous disorder, in which persons may by disease be deprived of the power of using the will over the muscular system, just as I believe the peculiar disease of the brain, which we call insanity, is one in which the ideas and acts are in the main beyond the reach of the will." In this definition hysteria is confined to loss of will-power over the muscular system ; and mania to loss of will-power over ideas and acts. Acts are, I have always supposed, muscular, and therefore, the definition of mania includes that of hysteria. No wonder that, with this definition in his mind, Dr. Gray sees hysteria as a portion of insanity, and no wonder that, when he confines hysteria to loss of will-power over the muscular system, he does not recognize deranged or excited ideas as a part of hysteria. Being totally unable to accept either of these definitions, Dr. Gray and myself

cannot agree on fundamentals, and therefore, we are not likely to find the arguments derived from different premises satisfactory to each other. It is as unwise in writing, as it is in the witness-box, to define insanity, for there can be no definition that will include all its phenomena. But in order to give Dr. Gray the liberty to criticise my definition, which he will not be slow to avail himself of, I will here state it. In my paper on "Insanity in Relation to Law," I gave Dr. Combe's definition that "It is a morbid action in one, or several, or the whole of the organs of the brain, and functional derangement in one, several, or the whole of the mental actions those organs subserve." I will add to this that in insanity, whether temporary or permanent, this morbid action is temporary or permanent alteration in the arrangement of the bioplasm; while in hysteria it is an irritation of the grey and ganglionic structures, produced by causes in action in other parts of the frame. To arrive at this conclusion I have related the facts and experiments contained in this paper, but I am afraid I have failed to satisfy my hearers, as I am conscious I have inadequately stated my own convictions. I have given you no new matter. I have merely attempted to bring those points in the researches of others together to support the opinions I entertain. Hysteria seems to me as different from mania as gastrodynia is from inflammation, or colic from enteritis, and I think that the more you give your attention to this subject the more you will be satisfied that the two diseases are essentially distinct. The treatment I do not allude to. It was discussed last year, and may be easily inferred from the statements here made.

I have no doubt that the views expressed concerning the relation of cerebral bioplasm to mind will again lay me open to theological accusers as a materialist, which I am not, in their sense of the word, but as I believe that intelligence is the creation of the brain, as blood is of the organs of digestion, I am, in a physiological sense. As to life, whenever and wherever life enters into matter, whether when it is first seen in the

automatic movements of the blood corpuscles, or at some preceding or subsequent stage, we come, sooner or later, to the one great cause of all things ; the will of the Creator. There is a period in all researches into living matter when we must be convinced that, without a Great Creator, living matter could never be. We are allowed to search as deeply as we are able into the mysteries that surround us, and the deeper our search extends, the more we must be convinced of an Almighty Power that has created all things, and provided for them in continued and harmonious action and renovation.

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