Hysteria in the Light of the Experience of War

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HYSTERIA IN THE LIGHT OF THE EXPERIENCE OF WAR*

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The war afforded an opportunity such as had never occurred before for investigating hysteria in men. The lessons we have learned can be applied to the elucidation of many of the problems presented by the hysteria of civil life. In this paper I shall attempt to explain the new conception of hysteria which I have been led to adopt as a result of three years of intensive study of the war neuroses.

I begin by proposing a new definition of hysteria:

Hysteria is a condition in which symptoms are present, that have been produced by suggestion and are curable by psychotherapy.

This definition differs from all others in not recognizing an hysterical condition apart from the presence of definite hysterical symptoms. Charcot believed that hysteria manifested itself in two ways: by the symptoms that were obvious to the patient and about which he complained, and by physical and mental stigmata that were present before the obvious symptoms appeared and which persisted after their removal.

PHYSICAL STIGMATA OF HYSTERIA

A characteristic feature of the physical stigmata he described, the chief of which were certain forms of anesthesia and narrow fields of vision, was that the patient never complained about them and did not indeed become aware of their existence until they had been demonstrated to him by the physician. Babinski showed that this was due to the fact that they did not exist until the physician found them, as they were actually produced by him unconsciously in the course of his examination. In a series of 100 consecutive cases of hysteria, which he examined in such a way that no suggestion could occur, neither anesthesia nor a narrow field of vision was ever found.

My investigations, carried on during the past twelve years, entirely confirm Babinski, and we have recently extended our observations still further. A spiral field of vision has often been described as even more characteristic of hysteria than the simple narrowed field described

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by Charcot, which Babinski proved was only the result of the suggestion involved in using a perimeter. When, after the first examination of the field was completed, and second and third examinations were made without interruption, the field was found to become steadily smaller, this being due, it was supposed, to the abnormal fatiguability in such cases. Major J. L. M. Symns and I[1] found, however, that it was simply due to the method commonly used, in which the white disk of the perimeter is brought from without inward at each examination. When it was moved in the opposite direction, an outward spiral instead of an inward spiral field was obtained, the field becoming steadily larger until it reached the normal instead of becoming steadily smaller. By varying the method used, it was possible to obtain an inward spiral with one eye and an outward spiral with the other, or an inward spiral followed by an outward spiral with the same eye.

Accurate measurements made with J. L. M. Symns proved also that the supposed pharyngeal anesthesia of hysteria is a fallacy,[2] and that the percentage frequency of deficient, average and increased sensibility is exactly the same in patients suffering from hysteria, and even from such hysterical symptoms as aphonia and mutism, as in normal persons.

The areas of cutaneous anesthesia that have been regarded as characteristic of hysteria were shown[3] to be simply those areas that an average layman would expect to be anesthetic if he were paralyzed, and which would therefore be likely to develop directly he is questioned on the subject and his cutaneous sensibility is investigated.

MENTAL STIGMATA OF HYSTERIA

Having disposed of the physical stigmata of hysteria, it becomes necessary to examine the mental stigmata. A study of the literature reveals a great diversity of opinion as to their nature. The stigma which is accepted by the largest number of writers, and which is the only one accepted by Babinski, is abnormal suggestibility. But our investigations have proved conclusively that, although abnormal suggestibility renders a man unusually prone to develop hysterical symptoms, there is no one who is so devoid of suggestibility that he may not develop them if the suggestive influence is sufficiently powerful. Whether a given person will develop hysterical symptoms under given conditions depends on the degree of his suggestibility and the strength

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1. Hurst, A. F., and Symns, J. L. M.: Seale Hayne Neurological Studies **1**:15, 1918.

2. Hurst, A. F., and Symns, J. L. M.: Seale Hayne Neurological Studies **1**:1, 1918.

3. Hurst, A. F.: Seale Hayne Neurological Studies **1**:7, 1918.

of the suggestion. It is clear therefore that abnormal suggestibility is simply a predisposing factor and is no more a part of hysteria than a tuberculous family history is a part of tuberculosis. Many cases of gross hysterical symptoms occurred in soldiers who had no family or personal history of neuroses and who were perfectly fit until the moment that one of the exceptionally powerful exciting causes, such as occur comparatively rarely apart from war, suggested some hysterical symptom; and after its disappearance as a result of psychotherapy the man was once more perfectly fit, and his subsequent history showed that he remained no more liable than any of his companions to develop new symptoms.

The following experiments made with Major J. L. M. Symns and Dr. R. Gainsborough[4] show how unexpectedly suggestible the average normal individual is. We examined twenty-eight men who were perfectly healthy and suffering from no kind of nervous disorder, but who were attending an aural out-patient department for deafness, which was either unilateral or more severe in one ear than the other. Both ears were lightly touched, sometimes by ourselves, sometimes by others who did not know we were investigating, and the men were then asked which side they felt more closely. Eighteen replied at once that the ear in which the hearing was less impaired was more sensitive to touch than the other; the hysterical anesthesia which had been suggested by this simple examination was so marked in one case that the man was seen a few minutes afterward putting a pin through the lobe of his ear to amuse his companions. In 1859, Briquet stated that hysterical deafness is associated with anesthesia of the external ear, and this has ever since been regarded as an almost constant phenomenon, which was supposed to help in the differentiation of hysterical from organic deafness. The experiment just described throws light on the origin of this deeply rooted fallacy.

As soon as it is recognized that, although certain mental stigmata predispose to the development of hysteria, they are not themselves a part of hysteria, it becomes obvious that many cases of hysteria will be missed if it is only looked for in so-called hysterical persons. When, on the other hand, it is remembered that there is nobody who may not develop hysteria if the provocation is sufficiently great, it must follow that hysteria is infinitely more widespread than has generally been supposed.

Hysterical Symptoms Produced by Fear.—In the majority of cases very little difficulty is experienced in discovering the nature of the suggestion which gives rise to hysterical symptoms. The chief varieties seen in soldiers may be taken as examples, though each has a much wider application to the hysteria of civil life. In the first place, there are the symptoms which follow the condition of fear. Extreme terror

4. Hurst, A. F., Symns, J. L. M., and Gainsborough, R.: Seale Hayne Neurological Studies **1**:19, 1918.

gives rise to certain very familiar symptoms, the individual becoming shaky, "paralyzed with fear," and unable to speak — "his tongue cleaves to the roof of his mouth." Under ordinary conditions the cause of fear is momentary and the physical results disappear in a few seconds. But during a heavy bombardment a man often remained terrified for hours. If the tremor, inability to move the legs and speechlessness persisted all this time it was natural that these symptoms of fear, which were not in any way hysterical, should so greatly impress the soldier's mind that the idea of a permanent condition of tremor, paraplegia and mutism suggested itself to him, with the result that when the original emotion had disappeared, its physical expression persisted as hysteria.

In the first two years of the war cases of this kind were given the unfortunate name of "shell-shock" in the belief that they were organic in origin and due to actual concussion caused by the explosion of powerful shells. Consequently, no attempt was made to cure them by psychotherapy, and the treatment by rest and sympathy helped to perpetuate them; this unfortunate result was increased by the use of the word "shell-shock," which gave the patient the idea that he was suffering from some new and terrible disease. When at last the true nature of the condition was recognized, it was found that psychotherapy not only resulted in the immediate disappearance of the symptoms, when they were treated in the special advanced hospitals opened for the purpose by the British and French and later by the Americans, but cases of two and three years' standing were also frequently cured at a single sitting in hospitals in England, such as the Seale Hayne. Although this form of hysteria was most common in neurotic individuals, a large proportion of the patients treated within the first forty-eight hours recovered so completely that they were able to return to the fighting line and showed no tendency to relapse. A few of the patients whose condition had persisted for many months before coming under treatment could not return to France, but such men were always able to go back to their old civil occupation and often had no underlying mental condition requiring further treatment, although in some cases the hysteria was associated with neurasthenia or psychasthenia, or both. Indeed, many patients at once lost such symptoms as headache, depression, insomnia and nightmares, which had troubled them for months or even years, directly the obvious physical symptoms, such as mutism or stammering, tremor and paraplegia, were removed by explanation, persuasion and reeducation.

Hysterical Symptoms Produced by Gassing. — The second great group of hysterical symptoms in soldiers resulted from gassing. The irritation of the eyes, throat and stomach caused conjunctivitis, laryn-

gitis and gastritis, the latter being due to the swallowing of saliva in which the gas was dissolved. The pain caused by the conjunctivitis induced the patient to refrain from opening his eyes with his levator palpebrae superioris; if, however, he tried to open them, his attempt was frustrated by a reflex protective spasm of his orbicularis palpebrarum. Under ordinary conditions the conjunctivitis had improved sufficiently at the end of three weeks for the eyes to be opened without difficulty, but if the patient was led to fear for his vision on account of previous weakness of the eyes, the previous loss of one eye, as in two of our cases, or too prolonged treatment with local applications, bandages, dark spectacles or eye-shades, the voluntary inhibition of the levator might be perpetuated as hysterical ptosis and the reflex spasm of the orbicularis as hysterical blepharospasm. As the uneducated layman associates the idea of blindness with inability to open the eyes many of these patients thought they were blind. Consequently, when they were taught to open their eyes it was found that they could only see indistinctly, as they had hysterical paralysis of accommodation, or less frequently they could not see at all, as they had become so convinced that they were blind that they had ceased to look, and, not looking, they could not see. Simple explanation followed by reeducation in looking resulted in permanent recovery. Similar cases, generally of much less severity and often consisting of nothing more than frequent blinking, are not uncommon in civil life.

In the same way the whispering in cases of laryngitis, which was originally in part voluntary to avoid pain and in part due to a protective reflex, was frequently perpetuated as hysterical aphonia. This was most commonly the case when an expert laryngoscopic examination had revealed the presence of some abnormal congestion or secretion, which led to intralaryngeal medication, as both the diagnosis and treatment afforded the necessary suggestion to perpetuate the idea in the patient's mind that his voice was permanently lost. When these patients were taken away from their unfavorable surroundings and treated by explanation, persuasion and reeducation, without any recourse to suggestion by electricity, anesthetics or other means, they invariably recovered. A series of 100 patients treated at the Seale Hayne Hospital were cured at a single sitting, although the average duration of the aphonia before admission was 205 days. About one third of these cases were not caused by gassing, but by the same suggestive influences as those that give rise to hysterical aphonia in civil life. We believe that the liability to relapse is greatly reduced by our simple method of treatment and the avoidance of suggestion.

The gastritis caused by gassing resulted in vomiting — a protective reflex which fulfilled its object by removing the irritant from the

stomach. The actual gastritis rapidly disappeared, and whenever the vomiting persisted for more than three or four weeks it was always hysterical. A very large number of soldiers were invalided from the service for so-called gastritis, the only symptom of which was vomiting. We found that cases of this sort could invariably be cured by a single conversation, if this was continued until the patient was obviously quite convinced that he was no longer suffering from gastritis and that he could eat anything without fear of vomiting, even if he had vomited after every meal for many months and had been kept on a strictly fluid diet.

Hysterical vomiting is much more common in civil life than is generally supposed. I believe that all cases of the so-called pernicious vomiting of pregnancy are really due to the hysterical perpetuation of the vomiting, which is physiologic during the first few weeks. Similarly the persistent vomiting, which is a common symptom in young anemic women and was formerly regarded as evidence of gastric ulcer, is generally hysterical and is due, like the vomiting in soldiers after gassing, to the perpetuation of a symptom produced originally by an acute attack of gastritis. The vomiting in chronic appendicitis, which may continue even after the removal of the diseased appendix, and of phthisis, and the cyclic vomiting in children, are in great part hysterical. All these varieties of hysterical vomiting can be cured by simple explanation, generally at a single sitting, just as in soldiers, and require none of the treatment by isolation, dieting and drugs, which is commonly given, even by those who suspect that there is a nervous element in the condition.

Hysterical Symptoms Produced by Trivial Wounds of Limbs. — Perhaps the most common of the hysterical conditions in soldiers were the paralyses and contractures,[5] which followed comparatively trivial wounds of the limbs. A great many different forms were observed, and in many cases the paralysis and contracture were associated with marked vasomotor disturbances, including cyanosis or pallor, a pulse of small amplitude, edema and trophic changes in the skin, nails and bones. At the same time the muscles showed a moderate degree of atrophy, accompanied by an increased irritability to mechanical stimulation and certain changes in electrical reactions, which did not, however, amount to the reaction of degeneration. These changes were often most easily observed under a general anesthetic, which did not result in complete relaxation of the spasm until reaching a stage of anesthesia beyond that in which consciousness is first lost. Babinski and Froment experienced considerable difficulty in producing any

5. Hurst, A. F.: Seale Hayne Neurological Studies **1**:43 and 244, 1919.

improvement in the paralysis and contracture by psychotherapy. Impressed by this and by the fact that the associated vasomotor and trophic conditions could not possibly be hysterical, as they were obviously neither capable of being produced by suggestion nor cured by psychotherapy, they concluded that the paralysis and contracture were also not hysterical. They revived the old theory of reflex nervous disorders, with which Vulpian and Charcot had sought to explain the muscular atrophy and spasm that often accompany diseases of joints. They ascribed both the muscular symptoms and the associated vasomotor and trophic disturbances to some obscure form of reflex action.

Our experience has led us to believe that there is no foundation for this theory of Babinski and Froment, and that all the cases they describe as reflex are really hysterical. The immobility and spasm may arise as a voluntary or reflex response to pain, or they may be due to localized tetanus, or to the application of splints or bandages, the abnormal posture assumed, the immobility and spasm being perpetuated by autosuggestion after the primary cause has disappeared, to which very often is added the heterosuggestion involved in treatment by electricity and massage when this is not really required. The hysterical paralysis and contracture which result could invariably be prevented by persuasion and reeducation directly the condition of the wound makes active movement permissible.

The hysterical nature of the paralysis and contracture is proved by their rapid cure with psychotherapy, as has also been shown by Roussy and others in France and Colin Russell in Canada. In a series of 100 consecutive cases treated at the Seale Hayne Hospital, the majority, if not all, of which might have been diagnosed as reflex, as each one of the cases shown in the illustrations of Babinski and Froment's book was represented in our series, ninety-six were cured at a single sitting of an average duration of fifty-four minutes, and the remainder were cured in four days, and two cases in two and four weeks, respectively, although the average duration of treatment before admission was eleven months. It is clear, therefore, that the paralysis and contracture are hysterical, as they are caused by suggestion and cured by psychotherapy.

Disuse of a limb, whether caused by organic disease or hysteria, leads to deficient circulation. This by itself is enough to explain the associated vasomotor symptoms, as they are most marked in cold weather and in persons who have always had a feeble peripheral circulation. They disappear temporarily, as Babinski and Froment showed, by artificially increasing the circulation by the application of heat, and permanently, as we have repeatedly observed, by restoring the power of movement by means of psychotherapy.

Deficient circulation gives rise in turn to deficient nutrition, so that the skin and subcutaneous tissues become atrophied, the bones decalcified as shown by the roentgen rays, and the nails thin and brittle. In a striking case, in which some trophic changes had developed as a result of hysterical paralysis and contracture of over a year's duration, and in which the power of movement was restored at a single sitting, the nails subsequently showed a very definite horizontal line separating the opaque, vertically ridged, thin and brittle part, which grew during the period of disuse, from the pink, smooth and otherwise normal part, which began to grow immediately recovery took place.

The changes in mechanical and electrical reactions and in the deep reflexes were also shown by Babinski and Froment to disappear when the circulation was temporarily improved by immersion in hot water, and we found that immediate and permanent restoration followed recovery from the paralysis and spasm as a result of psychotherapy. These changes therefore are nothing more than the functional effects on muscular tissue of deficient circulation.

In the same way the rigidity of the finger joints observed both in cases of organic nerve injury and hysterical paralysis and contracture, which persists under deep anesthesia, has always been regarded as due to adhesions or fibrous contractures, which only gives way under forcible manipulation with sounds of tearing and resulting effusion. This condition is really the result of some coagulative process in the fibrous tissue caused by the accumulation of products of metabolism, which are normally removed by the blood when the circulation is efficient. It is well known that a slight increase of mobility of such joints follows the application of warmth which improves the circulation, and we have found that complete and immediate restoration of mobility followed the return of the natural circulation as a result of the rapid cure of the paralysis and contracture. This must have been due to the removal of waste products permitting the temporarily coagulated fibrous tissue to assume its normal fluid consistence.

It is thus clear that the so-called reflex nervous disorders of Babinski and Froment are really hysterical, and that the associated vasomotor and trophic disorders are caused by the resulting disuse.

Hysterical Symptoms Produced by Injury or Disease of Nervous System.—The last group of cases is, I think, the most important, because it is one which is very common both in soldiers and civilians, though its true nature is comparatively rarely recognized. It consists of symptoms which are primarily organic and due to an injury or disease of the nervous system, but which are eventually in part or com-

pletely hysterical. When the structural changes produced by an injury or acute disease of the nervous system gradually diminish in extent owing to the disappearance of the vascular and other temporary changes which surround the comparatively small area of total destruction, if indeed such an area is present at all, the symptoms caused by the throwing out of action of the parts controlled by the nervous tissues primarily involved should disappear pari passu. Just as the physical signs in slowly progressive diseases, such as tabes and disseminated sclerosis, often precede the onset of symptoms, so in these cases the physical signs are generally still present when the functional capacity has returned to normal, and if the lesion does not disappear completely they may remain as permanent evidence of a past organic lesion.

In many cases, however, a man does not realize that his functional capacity is improving. If he has been hemiplegic, he has in the early days made repeated efforts to move his paralyzed limbs but without success, and he finally gives up the attempt and reconciles himself to the idea of permanent hemiplegia. If his physician is too much concerned with the possible dangers of early movement, he will exaggerate the patient's own fears of permanent disability, with the result that the organic hemiplegia is gradually replaced by hysterical hemiplegia instead of slowly disappearing as the organic lesion becomes more and more reduced in extent. A time may eventually arrive when the hemiplegia is entirely hysterical, but, as already pointed out, the physical signs of organic disease, such as extensor plantar reflex, ankle-clonus, exaggerated deep reflexes and lost abdominal reflex, may still be present on the affected side.

A number of additional signs have been described, particularly by Babinski, which depend on the fact that the behavior of the paralyzed muscles in organic hemiplegia differs in various respects from what an average layman would expect, so that a man with hysterical hemiplegia, the exact nature of which must depend on his own conception of how his muscles would behave if they were paralyzed, fails to show these signs. But if the hysterical hemiplegia was suggested by an organic hemiplegia, these signs would be present, as the patient would be trained by his own organic symptoms to maintain them in an unaltered form when they were no longer organic. Thus while the upper part of the face is unaffected, the lower, including the platysma (Babinski's platysma sign) would be paralyzed, and Babinski's pronation sign and the combined flexion of the thigh and pelvis (Babinski's "second sign") would be present. In the same way the characteristic

6. Hurst, A. F., and Symns, J. L. M.: Seale Hayne Neurological Studies **1**:113, 1919.

posture of the arm and leg in organic hemiplegia would be perpetuated. We should thus be face to face with a case, in which the symptoms had originated as a result of an injury or disease which is known to result in organic hemiplegia, and in which the incontestible physical signs of organic disease, such as the extensor plantar reflex and the other changes in deep and superficial reflexes, as well as the characteristic posture and the accessory signs described by Babinski and others, are present, although the hemiplegia is entirely hysterical. Such cases can only be diagnosed by experimental psychotherapy. If, as occurred in numerous cases under our care, more or less complete recovery takes place — although of course the permanent physical signs of organic hemiplegia persist — it is clear that the paralysis is almost entirely hysterical, although grafted on an organic basis.

The old method of diagnosing between organic and hysterical paralysis thus breaks down, as the physical signs of organic disease do not, as is too often assumed, indicate that the paralysis is entirely organic, but simply that there is an organic element in the case, which may be quite insignificant in proportion to the hysterical. Moreover, it is no help in such cases to consider whether the patient is or is not neurotic, as the large majority have no personal or family history of neuroses, and are in every way normal except for the particular symptom from which they are suffering. No more powerful suggestion of hysterical paralysis could be imagined than organic paralysis, and no abnormal degree of suggestibility is necessary for its development.

We have seen cases of homonymous hemianopia, which is commonly regarded as always organic, persistent headache, amnesia, and epileptiform convulsions develop after head injuries; paraplegia and persistent incontinence of urine, after spinal injuries; paralysis and anesthesia after nerve injuries in the exact distribution of the nerves, the anesthesia even resulting in accidental burns; all of which were primarily organic and showed the characteristic features of symptoms caused by an organic lesion, although the recovery with psychotherapy proved that they were hysterical. In many cases, of course, recovery was incomplete, the proportion of hysterical to organic incapacity depending on the extent of permanent damage done to the nervous tissues.

In the same way we have found that the well-recognized association of hysteria with disseminated sclerosis is even more common than is generally supposed, that an hysterical element is frequent in tabes and may even occur in such a disease as Friedreich's ataxia. A soldier suffering from the latter disease, who had been unable to walk or stand without assistance and had been unable to feed himself or write for several months, improved to such an extent as a result of a week's

psychotherapy that he was able to walk steadily and use his hands for all ordinary purposes, although of course the physical signs remained unaltered and the ultimate prognosis is as hopeless as before.

We believe that the same principle should be applied to all organic disease, whatever part of the body is affected, and that the possibility of an hysterical and therefore removable element should be considered, however normal the mentality of the patient may appear to be. Our experience further shows that the ideal method of treatment in such cases is a rapid one — by explanation in language suited to the intelligence of the individual, combined, when necessary, with persuasion and reeducation.