A period of moderate drinking seems to prepare the nervous system for drink-storms and excesses.

In tuberculosis, bronchial catarrhs and irritations of the throat, lead up in the same way to pronounced tuberculosis. In many cases of tuberculosis a marked mania exists for drugs of some kind. This is the same craving for relief that possesses the inebriate. The former is filled with the hope of virtue in drugs, is credulous, expectant, ever ready to try every new thing, never doubting its possible good effects. Filled with delusions of strength and final cure of his malady, the inebriate has the same boundless confidence in his power to abstain and ability to use spirits at all times and recover from the effects. The similarity of these cases can be traced in a great variety of symptoms which are identical in both cases. In both of these diseases there are similar nerve degenerations which may concentrate on any organ of the body.

Dr. Alison, in an exhaustive paper on the etiology of cirrhosis and pulmonary phthisis among inebriates, found phthisis more common among those of active habits.

He studied eighteen inebriates in fifty-four cases of phthisis, and asserted (*Archives Générales de Médecine*, Paris), as his positive conclusion that the use of alcohol predisposed to consumption by lowering the powers of nerve resistance, and by creating a constant source of irritation in the bronchi and lungs from the elimination of the alcohol. He was also clear in his conviction that inebriety and consumption were interchangeable, one following the other from the same general causes and both more likely to occur before 40. After that, acute inflammations followed more readily.

Dr. Mays, in the *Journal of Inebriety* for 1889, reported a number of cases from German authorities where death occurred from some form of inebriety, and the postmortem revealed tuberculosis and lung degeneration. In the same paper he reports a number of cases of inebriety following in the children of consumptives, and of phthisis or consumption appearing in children of inebriate parents. Dr. Haycraft, in "Darwinism and Race Progress," declares that criminals, inebriates, lunatics and consumptives, are all born with neuro-psychopathic constitutions, and in no other affection does heredity play so important a part.

Dr. Irwell, in "Racial Deterioration," describes the neuro-psychopathic constitution as a permanent condition of defect and weakness of the psychical nerve centers, noted in instability of nerve and brain power, lack of persistency, headaches, insomnia, indigestion, great susceptibility to environments, exaggerated emotional activities and a general insane temperament.

Dr. Williams, in his work on pulmonary consumption, written some years ago, describes the close relation between inebriety and consumption, calling them members of the same family group of diseases, one alternating with the other.

The fact has been noted by many specialists that inebriety often terminates in acute inflammation of the lungs and kidneys, coming on suddenly, showing that exhaustion has a special tendency to concentrate in this way.

Dr. Clouston of Edinburgh, in a late report says, that it is surprising how often insanity, consumption and inebriety appear in the same family and follow down to extinction among the descendants.

When one of these diseases is present the others are most likely to follow. Dr. Payne, in his "Pathology

of Chronic Alcoholism" says: "I can find no evidence to support the opinion that the free use of alcohol checks the progress of tuberculosis." On the contrary, the impression seems well founded and firmly held by many authorities that inebriety follows tuberculosis, and that they alternate one with the other frequently; at least there can be no question that they are very frequently associated.

Dr. Sharkey, in the London Pathological Society, claims that disturbances and lesions of the vagus nerve by lowering the nutrition of the lung, predispose it to become the nidus of the bacillus of tuberculosis. Hence all inebriates are predisposed to tuberculosis, and are more likely to contract this disease than any others.

The evidence of the neurotic origin of tuberculosis is often overlooked in bacterial study. The same extraordinary care to prevent infection in public places should extend farther back to heredity, alcohol and the great strains and drains that lower the vigor and lessen the power of resistance and make it possible for bacteria to find favorable soil for the destruction of the body.

THE INFLUENCE OF HYPNOTIC SUGGESTION UPON PHYSIOLOGIC PROCESSES.

Presented to the Section on Neurology and Medical Jurisprudence, at the Forty-eighth Annual Meeting of the American Medical Association at Philadelphia, Pa., June 1-4, 1897.

BY R. OSGOOD MASON, A.M., M.D.
NEW YORK, N. Y.

That hypnotism is a fact, and that the power of suggestion is marvelously increased while the patient or subject is in the hypnotic condition, are now truisms to all who have been students in that domain of psychology to which these subjects belong. The old rubbish of superstition, supernaturalism, and even of occultism, is in part at least swept away, and these two facts now stand out clear and distinct. It remains, by observation and experiment, to test their possibilities and ascertain to some degree the limit of their influence and usefulness.

Permit me to remark regarding the general drift of therapeutic practice in nervous diseases no less than in other departments of clinical work, that notwithstanding the tendency to specialization, and the multiplication of remedies in each special department, still amongst the wisest and most conservative in all directions the tendency is toward moderation and simplicity in the use of remedies; and thought is given especially to the repair of organs through physiologic processes, rather than the search for authoritatively endorsed specifics. Nothing can better illustrate my meaning than the treatment of epilepsy during the past thirty or forty years; there were first the salts of silver, then the salts of zinc, then the bromid of potash, and then that remarkable shotgun invented by Brown-Séquard, in which all the known bromids were combined; later the bromid of sodium alone was the favorite, and now the general feeling is that in the ultimate results bromids are harmful, and that diet, regimen, air, and regulated exercise are much the most important factors in the treatment of this formidable disease. In other words, attention is being directed from specifics to the consideration of what can best be done for the repair and healthy action of damaged nerve cells and imperfectly functioning organs.

I am aware that there is a very decided feeling in the profession that the uses of hypnotism and suggestion are extremely limited, and that a few nervous or imaginary diseases constitute their main field of utility. Let us inquire whether this impression is well founded; and as a single but most important department of that inquiry and one harmonizing well with the general trend of medical thought and practice, I will direct attention to the influence of hypnotic suggestion upon physiologic processes.

In studying this subject, as in all others claiming a scientific basis, the first thing is to present the facts. An abundance could be cited from well known and reputable authorities; I will, however, confine myself to those which have come under my own observation. I will briefly describe a few cases where physiologic processes have undoubtedly been so influenced.

1. The influence of suggestion upon the action of the stomach. M. M. was a public singer, and near the end of a New York season was thoroughly worn out and exhausted. Food was absolutely distasteful to her, and if taken was seldom digested, but generally vomited, and as might be expected under such circumstances, her voice had failed seriously. She was brought to me to see whether hypnotism could afford her any help. She proved an excellent subject and was put promptly into the deep sleep. I suggested that she would at once have a strong desire for food, would be able to take it freely, retain it and digest it perfectly; that her strength and vitality would, as a consequence, quickly return and that night there would be such an improvement in her voice and singing that it would be the subject of general remark, and that her friends would congratulate her.

Her midday meal occurred directly after leaving my office, and her friends were amazed at the food which she ate with enjoyment. It was retained and digested, her strength and vitality were at once improved, and the improvement in her voice and singing was actually, on that same evening, the subject of favorable comment. Two more treatments carried her through her engagement with comfort and credit.

2. The influence of suggestion on the function of the lower bowel. Miss A. was a bright, intelligent educated German, 26 years of age, free from any hysterical or unusual nervous symptoms. She was the subject of obstinate constipation, and seldom had a movement from the bowels without medicines or enemata, often going unrelieved four or five days, and it was then with difficulty that even partial relief was secured. She was easily hypnotized, and one evening, while in the hypnotic condition, was given a single teaspoonful of pure water, with the suggestion that it was a bitter dose but very powerful, and that it would give her a perfectly free and full evacuation at 7 o'clock the following morning. She took the water with many grimaces at its bitter taste, and the suggestion was realized with such promptness and energy as to awaken her suddenly from sleep at exactly 7 o'clock, and to be the occasion of serious inconvenience.

3. Its influence on the menstrual function. Miss F., 18 years of age, menstruated at 15 and was a fully developed and usually healthy girl. She consulted me on account of the absence of the menstrual flow, which had not appeared during the previous six months; she was, at the time, pale and anemic. She was put into the condition of light sleep, during

which I suggested improved digestion and assimilation of food, causing the production of a richer blood and a better nutrition; also that her menstrual flow would occur at its proper date, two weeks from that time. I ordered her to continue asleep one hour and then awake. The same treatment was given twice more at intervals of four days. At the time suggested the menstrual flow returned; her health was improved and the improvement was permanent.

4. Its influence on lactation. Mrs. H. was a young mother, primipara. Her infant was two weeks old, and notwithstanding care had been intelligently given to secure a proper supply of milk, scarcely a drop appeared, and the child had to depend entirely on artificial feeding. The mother was anxious to nurse her baby and I proposed hypnotism. She proved a fairly good subject and went easily into a condition of light sleep, in which I suggested that the organs for supplying milk were perfect, and only needed stimulating to proper action; that at 1 P.M., it being then 11 A.M. she would take her bowl of hot gruel, and at 2 P.M. she would feel the milk coming freely into her breasts and that there would be an abundance for the baby. The suggestion was exactly fulfilled in every particular, and at 2 P.M. the babe had a full and satisfying meal from the mother's breasts, and artificial feeding was discontinued.

5. Its influence upon absorption. Mrs. X., 26 years of age, had been an invalid four years. Her condition was the result of pelvic cellulitis following a miscarriage. The right broad ligament and ovary were still involved; were greatly thickened by plastic deposit and very tender and painful on bimanual manipulation. Her menstruation was excessive in quantity, lasting seven or eight days, and was accompanied by large clots which were expelled with great pain. She was a complete invalid, constantly under the doctor's care, and though of an unusually active temperament was obliged to spend weeks at a time in bed. She was thin in flesh, badly nourished, nervous and anemic. A competent and conservative gynecologist had advised the immediate removal of the ovary as the only hope for improvement. Three days later she consulted me, and I advised delay, with the expectation that great improvement would speedily occur as the result of treatment.

She proved an excellent subject, and I suggested first, ability to take food, improved nutrition and the disappearance of pain and discomfort from the pelvic region; and these suggestions were promptly realized. Then followed the suggestion that the process of absorption would be stimulated and the adventitious deposit, from the old inflammatory process would be gradually taken up and removed; that the congestion of the uterus and pelvic viscera generally would be relieved, and that the circulation through these organs would be unobstructed. Then that menstruation, when it occurred, would be normal in quantity and free from clots and pain. This was eight months ago. Improvement commenced immediately in her nutrition with relief from pain; then followed a more normal flow at the menstrual periods; the thickening and tenderness of the adnexa of the uterus upon the right side were distinctly diminished and today very little difference can be detected in the two sides; menstruation is normal and painless. Very slight tenderness of the ovary of that side can be detected on bimanual manipulation, but her general health is good. She is well nourished, of good color, cheerful and hopeful.

It will be noted that the suggestions were not all made at once, but successively, as her condition demanded, and always with a distinct appreciation of the physiologic processes which should be stimulated or controlled in order to bring about the desired result. In making the suggestions it was not sought to use language adapted to the comprehension of the patient in her normal condition, and that used was never heard by her or at least never became a part of her usual consciousness.

I will not give a needless detail of cases, though they could easily be multiplied. I simply wish to call attention to the fact that in a great variety of cases and a multitude of instances physiologic processes have been influenced and controlled by suggestion.

Numerous cases have been reported by Liébault, Bernheim, Leigois, Dumontpallier, Burru, Kraftt-Ebing and many others, where suggestion has produced changes in the physiologic processes of the body; changes in the heart's action, in temperature, in the vascular and vasomotor systems, causing the raising of blisters, bleeding from the nose or oozing of blood from designated points upon the surface of the body, and increasing or diminishing the various secretions of the body. With the knowledge of such facts before us, stigmatization, the reported cases of which now exceed 100, ranging from St. Francis of Assisi in the thirteenth century to Louise Lateau at the present time, becomes credible, and may be studied with interest and profit, and without loss of caste, even by persons of rigorous scientific orthodoxy. In fact, the old adage, "There is nothing that makes a man suspect, more than to know little," is most applicable to the matters here presented.

The field then in which hypnotism and suggestion are effective and may be made useful is not limited to nervous or imaginary diseases, but extends to a large class of functional disorders, and in some cases at least, and under some favorable circumstances, to serious organic disease; and the assistance rendered by suggestion in these cases is perfectly natural and scientific, and is due to its influence upon physiologic processes, stimulating, retarding and regulating with a certainty and success, varying according to the susceptibility of the patient and the knowledge and skill of the physician.

HYPNOTISM IN THE TREATMENT OF DISEASE.

Presented to the Section on Neurology and Medical Jurisprudence, at the Forty-eighth Annual Meeting of the American Medical Association, held at Philadelphia, Pa., June 1-4, 1897.

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From the earliest period in the history of the healing art, there has always been a strong tendency to accept any mysterious or unknown agency in the treatment of disease; more especially is this acceptance favored by the less learned in science, and among those afflicted there is always found a large clientage who are ready to be operated on by anything surrounded by mystery or pertaining in any way to the occult.

Hypnotism, undoubtedly, owes to the mysticism

that surrounds it its existence and practice. If it were better understood, no doubt it would be neglected and soon forgotten with the host of other agencies that have existed in the past and lost their charm as they became understood.

To the scientific physician it fails to create confidence enough to be of much use, and its employment is now apparently largely in the hands of that class of practitioners who seem to play on the credulity of the public more than to treat disease in a strictly scientific manner. I am well aware that I am open to severe criticism by some, but I base my statements upon my own experience and observation. With a large acquaintance with practicing members of my profession, I have failed to find but few who care to make use of hypnotism as an agency in their practice, and those who do use it appear to do so more as an experiment than as honest scientific treatment. In the use of it myself I have always felt some degree of guilt, and am sure I could have accomplished similar results with agents that are more scientific, more satisfactory, and with a feeling that I have not left behind conditions that may be harmful, for I am sure that the results of the use of hypnotism, in many instances, may be harmful.

If the nature of hypnotism be such as Maudsley describes, and I see no good reason to doubt his conclusions, surely we should think long and carefully before employing it in our practice. He says:

"What may we suppose to take place when a person is thrown into such a trance in which, machine-like, he is governed by suggestions which the operator makes, touching, tasting, seeing, hearing, thinking and doing just as he is bid? That by the special suggestions made, the fit tracts of his brain are stimulated to a separate and pretty nigh exhaustive activity, while the functions of the remaining tracts are suspended. Thereupon he can not choose but perceive as he has been made to think; must translate every impression on sense into the language of the solely active idea, and shape to its features, or else have no consciousness of it at all. He can not possibly perceive in the terms of ideas that are entirely inactive. The one active cerebral tract is virtually the whole and sole mind which he then has, and to obey it in sense and act is a compulsive necessity. For the time being he is effectually severed from full mental contact with things as if he had been educated through life to exercise that tract and none other, or as if he were a madman, dominated by its morbid growth and function. There is good reason then, why persons of weak and unstable nervous temperaments can, while persons of strong, compact mental organism can not, be thus put out of possession of themselves, and why those who have frequently allowed their mental being to be thus dislocated become so unstable, at least as to fall out of mental joint at the least suggestion. Nay more, there are persons who under enthusiasm, or other mental excitement, can perform a self-hypnotism, and afterward so cultivate the acquired function by strain and practice, as to repeat the operation at will, with the greatest ease." Such is the character of this agency, which no doubt has existed as long as the history of the treatment of disease varying in degree of potency in different ages and under different conditions of the human family.

That we are living in an age where from the activity and strife and strain of life, in a severe struggle for position and existence, coupled with a heredity that is becoming more and more conspicuous, when there is