tion of paralysis is as follows: Sensory: Anaesthesia over the shoulder and radial side of the arm, extending well over toward the ulnar side; Motor: Paralysis with atrophy and degeneration reaction implicating the deltoid, triceps, biceps, supinator longus and brevis, supra- and infra-spinatus, pectoralis major and latissimus dorsi. The injury was probably either a stretching of the nerve-roots, more particularly on the left, from about the fourth to the seventh, inclusive, or a hæmorrhage about the cord in the corresponding locality.

One of the cases reported in my previous paper illustrates the localization still further. In this case there was typical unilateral dislocation, apparently of the third upon the fourth vertebrae, followed by paralysis and atrophy, affecting in a marked measure the supra- and infra-spinatus muscles on the left, as seen in Figure 2. These muscles are alluded to by Thorburn, as furnished by the fourth cervical nerve-roots.

The third case, which came under my observation in the same clinic, can hardly be explained, taking both the history, and the present physical examination into consideration, on any other supposition than that of a dislocation of cervical vertebrae, spontaneously reduced.

FIG. 2. Unilateral dislocation. Atrophy of supra- and infra-spinatus muscles on the left.

CASE III. J. P. W., thirty-eight years of age, married; occupation a currier; gives a history of a fall of fifteen feet, landing on the vertex in the sand. He did not lose consciousness, but lost the power of the legs for a few days. There was no urinary disturbance. There was no hæmorrhage from the nose or ears, no conjunctival ecchymosis. He was in bed for two weeks. The chin was immovably fixed on the breast for sometime after the fall. There was a stinging pain in the back, and grating in the neck with pain on movement, with numb sensation up to the back of the head. Most of the symptoms disappeared in a short time. The head is still held somewhat stiffly forward, there is limitation on backward flexion, and in less degree on rotation. No irregularity is detected in the spinous processes. There is now no paralysis of motion or sensation. Examination of the eyes is negative. There is no rigidity of the muscles of the neck, the limitation of motion being apparently connected with the vertebral column.

Allusion has been made to the fact that the muscles on one side are lax in unilateral dislocation (see Figure 3), while those on the other are put upon the stretch. It might be assumed that the exact converse should be looked for in cases of torticollis. This is not, however, always the case, because the muscles on the non-spasmodic side may be also put upon the stretch in torticollis, as is seen in Figure 4.

FIG. 3. Unilateral dislocation of atlas upon axis. Sterno-mastoid tense on the left, lax on the right.

FIG. 4. Torticollis. Position resembling unilateral dislocation. Both sternomastoids prominent.

In this case (a patient in the Good Samaritan operated on by Dr. E. H. Bradford), the right sternomastoid is plainly affected with spasm, but the left sternomastoid also appears tense on account of being put on the stretch by the great displacement of the head, its position resembling in a marked degree that of unilateral dislocation.

THE THERAPEUTIC VALUE OF SUGGESTION DURING THE HYPNOTIC STATE; WITH AN HISTORICAL SKETCH OF HYPNOTISM AND A REPORT OF THIRTY-FIVE CASES.¹

BY HAMILTON OSGOOD, M.D., OF BOSTON.

It should be remembered that it is by suggestion that the physician habitually calms the fears of his patient, gives him hope and courage and sometimes even relieves suffering. But in the waking state verbal suggestion would hardly be expected to dispose of a headache, quiet neuralgic and rheumatic pain, bring on a retarded menstruation, relieve constipation and other ills, in a single sitting. The effect of suggestion

¹ Read at the meeting of the Boston Society for Medical Improvement, March 24, 1890. Concluded from page 417.

in the waking state, however, may now explain many curious phenomena, for example, the powerful effect of Mesmer's famous *baquet*, of the Marquis of Puységur's magnetized trees and rods of glass, the apparent relief by pure homœopathy, by magnets, by the so-called electro-magnetic belts, rings, etc., by amulets, talismans, miraculous waters, as those of Lourdes; the prevention of rheumatism by a chestnut carried in the pocket, and there are scores of other popular sources of relief, in all of which suggestion, and nothing but suggestion, has been the means of aid. If such be the effect of suggestion in the waking-state, how much more active should be verbal suggestion when applied to a dormant, non-resistant brain which, as has been so often proved, transforms the suggested into actual relief? Occasionally, an individual can produce changes in his physical condition by means of auto-suggestion and if it could be developed, this would be a power of great value. At the recent Congress in Paris for the discussion of hypnotism Dr. Coste de Lagrave reported that he had warmed his body during bitter cold, arrested gastralgia in himself, marched without fatigue, etc., simply by this means.

Self-hypnotism is also not only possible, but has been practised by the Magi of Persia and the Jogi of India, for more than 2,500 years for religious purposes, these men throwing themselves into their ecstatic trances by each maintaining a steady, fixed gaze at the tip of his own nose. They thus attained the desired habit of abstraction and concentrated attention.

Last summer an hysterical patient told me that when unusually wakeful, she drew her candle close to her face and by gazing fixedly at the flame for a few moments, invariably fell asleep. These instances are excellent proof that fixation of vision suggests sleep, and they exclude the claim that hypnosis is due to the magnetic power of another person.

It must, however, be distinctly understood that no advocate of hypnotic suggestion invests it with an universal power. It by no means excludes other forms of treatment and should be regarded as an important and valuable adjunct. But, it will be discovered that in a vast number of cases in which medicine in some form generally would be prescribed, suggestion under hypnosis is not only a more agreeable and more effectual remedy, but will bring relief with a rapidity which will far outstrip the slower action of drugs and render them superfluous as well.

What are the procedures of hypnotism? The simpler they are the better. Whatever be the means adopted, they are nothing but suggestion. The complicated methods including certain positions of the patient, certain manners and attitudes on the part of the operator, are needless and smack of charlatanism. As a preliminary, it is well to explain that the sleep is perfectly natural and that it will prove a means of relief. The first thing is fixation of the patient's eyes. This is classic. In the books the physiological and psychological effect of this arrest of the eye is explained at length in many-worded paragraphs. It seems to me sufficient to say merely that quietude of the eye is a first natural physiological step in sleep. Watch a person who falls asleep over his book. First, his eye stops upon a certain line and ceases its movements from left to right and back again; it stares at the page, and the mind is no longer cognizant of the sense of the words. The upper eyelids then become

heavy; they droop; they begin to cover the pupils; they join the lower lids; sleep has come. Now, in fixing the eye, dozens of methods are adopted. There is the bright point, a finger ring, a pencil top, a thermometer case, a small mirror, revolving mirrors, a candle flame, a polished ball of steel, etc., each, of which, should be held between and a little above the eyes, for, convergence of the eyes induces sleep. But none of these objects are necessary. *The eyes of the operator, or his finger and thumb held one before each eye of the subject, are sufficient.* A few passes with the hands are sometimes useful. The physician may then say: "Fix your eyes upon mine (or upon the object chosen) and think only of sleep. Your eyelids begin to feel heavy, your eyes are warm, the brain expects sleep; your body and limbs feel quiet; you begin to be drowsy; your eyes are closing." Perhaps the command "*Sleep!*" will complete the act of hypnosis and the patient has reached one of the degrees of slumber. But if by this time the patient's eyes have shown no signs of yielding, close the lids gently with the finger and thumb, and holding them thus, repeat the same formula and add: "You hear what I say, you think you are conscious but you have reached a degree of sleep. You have no desire to move. You feel that rest has come. It is agreeable," etc. This is usually efficacious and if the patient be not asleep, or sleepy, it is better to postpone the attempt. One simply says: "You have been influenced. The next time you will go to sleep." In many cases verbal suggestion alone will cause hypnosis. Some subjects are so susceptible that it is necessary to say only: "Before I count ten," or "Before I repeat the alphabet from A to G," or "Before you have completed ten deep inspirations, you will be asleep." The method is always a suggestion. I saw one French operator gently pinch the ear of his patients and quietly order them to sleep and hypnosis followed.

In going to sleep the eyelids of the patient will either calmly close, or close and open a few times, meanwhile becoming moistened with tears, and finally closing with a quivering motion which sometimes continues during the sleep and should be disregarded. Sometimes the eye-ball rolls about under the lid or turns upward and remains fixed, or is perfectly still. At the first sitting it is better not to defy the patient to open his eyes, nor to test the degree of hypnosis. Suggestion should first be used. The patient is told that his pain is disappearing; that on waking, it will be gone; that relief is coming; that the nerve and blood supply of the affected part is being so modified, that he will be conscious of a sensation of warmth in that locality; that all discomfort will vanish, etc. If a joint be rheumatic or painful, the corresponding limb should be moved gently at first, and finally be briskly exercised in all directions, meanwhile the suggestion, "This will not hurt you in the least," is helpful.

Two suggestions should be unailing, namely, that the patient will wake in absolute comfort, and that he will sleep soundly the following night. This usually occurs. Impress upon the patient also that he is resting and being refreshed with great rapidity.

I find it of much usefulness to lay a hand upon the locality or over the organ to which suggestion is being directed, using either friction or pressure. If the patient can be made to acknowledge that the part feels warm, relief is very certain to follow. My experience

has taught me that very sensitive patients may easily be overstimulated by suggestions which are too impressive or too long continued. Very susceptible patients, I also have learned, may be relieved of pain and be invigorated by suggestion in the waking state. But, the physician must adapt himself to the peculiarities of his patient. It may be necessary to convince, to argue, to asseverate with vigor. There is no fixed method. This changes with the patient. The physician should be calm, cool, imperturbable, showing by his manner unfaltering command over himself and complete indifference to any vagaries of the patient. He should possess force sufficient to check all tendency on the part of the subject to laugh or be restless. He should also be able, when necessary, to be impressive in making suggestions. All should be quietly, firmly, and soberly done, the patient being made to comprehend that the procedure deals with a power too grave to admit of trifling.

Probably there are physicians who will not care to use hypnotic suggestion. Shyness, timidity, self-consciousness, lack of imperturbability, in short, of the necessary force and self-control, will make it difficult for any person to hypnotize. But, still, given a certain power of impressiveness, adaptability, calmness and patience, nearly every physician could learn to apply therapeutic suggestion. I contend, however, that the process should be confined to physicians and psychologists, for, if an organ, or a locality, or a condition, can be benefited by suggestion, aided by a correct diagnosis, a wild, aimless, unintelligent use of the same power can and is very liable to do harm. The tests of the degrees of sleep are useful as giving the certainty of the condition of the patient. If the latter be defied to open his eyes, and does so with ease, we may suppose either that his quietude is due to complaisance, or that he has reached only the first degree of sleep. A certain expression about the eyes which one learns to recognize will define the difference, and the relief of pain, subsequently acknowledged by the patient, will be decisive. When rotatory automatism is reached, we are sure of helping the patient. So that these tests, which may seem absurd, are of great value as indications of the degree of sleep.

There should be no discouragement if the patient fail to be influenced at the first sitting. The novelty of the procedure, the curiosity of the subject, his ignorance as to his own duty, as well as of the proper manner of adapting himself to the needs of the occasion; all these are elements of disturbance, which, probably, will not recur at a second trial. Once win his confidence, and the patient will come for his hypnotic treatment as indifferently as for any other familiar remedy. Much help is afforded by hypnotizing trained subjects in the presence of a new comer. Waking the patient sometimes may cause the operator considerable embarrassment, for, while the majority of subjects awake at command, others linger in sleep, or, if aroused, immediately fall asleep again, and frequently it is quite difficult to arouse them. One should bear in mind that just this same difference between individuals exists in ordinary sleep; one person awaking at a word, while another requires energetic treatment before he awakes.

If a patient be not easily aroused, suggestion may be used. The operator presses with the thumb upon the vertex or forehead of the patient, at the same time saying: "This pressure will open your eyes," etc. It

will be seen how necessary is adaptability and presence of mind.

Some patients will awake of themselves at the exact expiration of a period of time suggested by the operator. I have one patient who thus awakes to the second. But, few persons have the sense of time during sleep. It does no harm to leave a patient asleep. Bernheim allowed a patient to sleep eighteen hours. Generally, however, the patient will awake naturally as from an ordinary nap.

The study of hypnotism has discovered that certain persons, a small number, it is true, are not only very easily hypnotized, but, that during the sleep they are profoundly susceptible to suggestion. For this very reason, such individuals are not only exposed to personal danger, but, through their hallucinability they can be used as instruments against others, as false witnesses, as vicarious thieves, in various ways as victims. All this is the result of post-hypnotic suggestion. That is, suggestion to be acted upon at a given time after the subject wakes from the sleep. Those who read the book of Liégeois will find a number and variety of such cases. Still, I adhere to my statement that the percentage of such individuals is small, and, let it be remembered, if the hallucinability of patients be not tested, there will be no suggestion made for subsequent action on the part of the subject. In this way such individuals can be protected.

There is another class of persons whose susceptibility is of such a degree and nature that they can most easily be influenced in the waking state. These unfortunates are more numerous than one would suppose, and yet they are relatively very few in number.

But by a curious sort of instinct, a physician who has hypnotized many persons soon learns to suspect the susceptibility of a patient even before he submits him to hypnotism. Personally, I have seen men made to steal, to acknowledge their connection with supposititious doubtful affairs simply by suggestion in their waking state.

Now what is to be done to protect such persons from themselves and others? Simply this: First, the physician should suggest to his very susceptible and perhaps, to the few female patients who are deeply hypnotized; for their number will be comparatively small, that they can be hypnotized by no other person without his permission. The result may be illustrated by an incident in Bernheim's experience. He had often hypnotized a certain young woman; one day, however, he found her perfectly refractory to his suggestions. He then requested Liébeault to attempt to hypnotize her, and to his surprise, within ten seconds she fell into a profound sleep. Asking an explanation, Liébeault laughingly told him that Beaunis, who recently had been experimenting with this patient, had suggested to her that until he gave her permission, she could be hypnotized only by her regular physician (Liébeault) and himself.

The second class (those who are suggestible in the waking state) can be protected only by laws already in force in certain countries abroad, laws similar to those which protect us from robbery, arson, counterfeiting, personal injury.

There are also individuals who can be made to act upon an hypnotic suggestion at the expiration of very long periods of time. Liégeois succeeded in prolonging this period to precisely twelve months. But these phenomena have no bearing upon my subject.

Very much interesting information upon the medico-legal bearings of hypnotism might be given, but the necessary limits of this paper renders further allusion to this topic impossible.

Turning now to the dangers which the uninformed are so apt to connect with hypnotism, let me say at once that all writers upon the method of hypnotism as set forth by the school of Nancy, and in this paper, declare with great emphasis that they never have seen the slightest ill effect result from hypnotism. In a very few cases a slight headache sometimes occurs after the first hypnotism, arising doubtless from the agitation natural in very sensitive persons, and due to the strangeness of the process. I have hypnotized several hundred times, and have not yet seen this nor any other uncomfortable result. It is easy to see that a brusque manner on the part of the physician would probably cause some such effect in a timid patient. This headache is fleeting, and may always be avoided by gentleness, and by the suggestion that on waking the patient will feel perfectly well.

With reference to danger to the very susceptible, I have already said all that is needful to ensure their protection. In reply to the fear that frequent hypnotism may act prejudicially upon the mind and nerves of the patient; that is merely a popular and erroneous fancy. Those writers whose experience includes the hypnotic treatment of hundreds and thousands of cases, never have seen a single patient who has been harmed in the slightest degree. What is called yielding the will is really a willingness to fall into a natural sleep. Hypnotism subjects patients to physicians only as a means of physical aid. I have hypnotized patients at least forty consecutive times on succeeding days with no other result than a steady increase of health and of quietness and rest at night. Beaunis hypnotized a lady every day for six months with great benefit. The percentage of cases in which patients would come under the dominion of the physician, as a permanent result, is infinitesimally small, and even then the influence is but little more decided than in any patient who under ordinary conditions has implicit faith in, and therefore is easily influenced by the medical adviser.

The effect of suggestion quiets pain, calms nervousness and mental distress, gives healthful sleep as a nightly habit. Of itself, the hypnosis is not only as beneficial and as exempt from unfavorable effect as the ordinary sleep, but in a very short period of time will confer a far greater intensity of rest and refreshment. There is danger in experimenting upon hallucinable subjects. This is a question by itself and belongs to specialists and students of psychology. This danger is that an hallucination, frequently recalled, is liable to become permanent and may return spontaneously in the waking state. But, unless one be a specialist and have legitimate reasons to the contrary, we, as physicians, do not wish to deal with the hallucinability of our patients when they are in the hypnotic state. Our object is to soothe, to heal, to alleviate, to relieve. In giving cannabis indica we do not, for our own amusement, prescribe doses which will produce hallucinations. Neither should we desire to play upon the hallucinability of the few patients who reach that degree of suggested sleep. Alcohol and poisons have their objections. When abused, they are unsafe. Nevertheless, we do not hesitate to use them nor do our patients hesitate to take them.

They trust us. Moreover, the honor of the physician bears the same relation to hypnotism that it does to any other form of treatment.

There is a curious fable afloat to the effect that at the will of the operator, persons can be hypnotized at a distance—any distance. Liégeois has hypnotized by telephone. Bernheim and Liébeault, by mail. Beaunis suggested to a patient, that, when she wished to fall asleep during his absence, she had only to speak his name. The expected result followed. But it is a simple matter to see that in all these cases, actual suggestion reached the patient and this must always and inevitably occur. There is no mystery, no occult, nor unusual power in this, and the patient must previously first have been once or oftener hypnotized by the operator.

Here let me say that the employment of hypnotism by physicians for the amusement of bystanders, seems to me a misuse of a great gift, a proceeding to which I trust no physician will either descend or give countenance. Thus abused, hypnotism is wronged. It should be held in reserve, not for the entertainment, but either for the relief of humanity or for scientific purposes. Further, I must place upon record, a formal protest against public exhibitions of so-called magnetism by charlatans. This is an abuse of the public, of personal dignity, an infringement upon personal liberty, and can easily lead to, and often has resulted in serious harm. In Austria, Italy, Denmark, Germany and Switzerland such performances are interdicted by law. At the late Congress of Hypnotism in Paris, a resolution was unanimously adopted to the effect that the governments of *all* countries should forbid such exhibitions. A second resolution was that hypnotism should legally be confined to medical practice, or, to those persons only who are empowered to use it, as, for example, psychologists. Even these, says a medical editorial in the last number of the *Journal of Hypnotism*, should have a physician at hand. A third resolution urged the addition of the practical study of hypnotism to the general medical curriculum.

This paper is a mere outline of my subject. I have tried to make it practical; but there is a mass of additional detail which might be given. For this it is necessary to refer those interested to the books.

May I now ask your patient hearing of a very brief statement of the results of some of the cases in which during the past several weeks I have applied hypnotic suggestion?

CASE I. Rheumatism in shoulder, of ten weeks' duration; arm practically useless. Had resisted all ordinary treatment. Sleep of *first* degree only. At first suggestion pain entirely disappeared; no suffering in moving limb. At second suggestion, three days later, for pain on laying arm across back (*second* degree of sleep) pain permanently relieved.

CASE II. Acute bronchitis; dyspnoea; incessant cough; pain and weight under sternum; mental depression; insomnia; *second* degree of sleep. Every symptom relieved; cough ceased; respiration calm, and sternal oppression gone. Patient cheerful, and looked years younger. Could not see case again.

CASE III. Lady passenger on Steamer *Pavonia*. Very seasick; steady vomiting; severe headache; insomnia. *First* degree of sleep relieved the symptoms. Effect increased daily until *fourth* degree was reached. Each suggestion gave several hours' sleep.

On waking, motion of ship renewed nausea, which, however, steadily decreased from the first suggestion. Treatment gave great comfort to patient. In conversation with Bernheim, he expressed the opinion that suggestion should always be made before subjects go to sea. In a more recent instance, this was effectually done in the case of a lady heretofore invariably sea-sick.

CASE IV. Dyspepsia of three years' duration; headache; vertigo; frequent vomiting; dyspnoea from condition of heart; extreme care necessary in diet. *Fifth* degree of sleep; rotatory automatism and contractions. Dyspepsia wholly relieved by one suggestion; no return. Ten or twelve daily suggestions calmed dyspnoea to such a degree, that patient climbs hill or stairs with comfort unknown for months. Now in good health; can eat any kind of food with impunity.

CASE V. Extremely morbid; pale; constant headache; vertigo; anorexia; insomnia during past six months. *Fourth* degree of sleep. Patient woke with color in cheeks; cheerful; pain and vertigo gone. Slept nine hours following night. Appetite returned. Four more daily suggestions. Patient cheerful; feels and sleeps well; color fixed; no medicine given. Five days later, pain in vertex and vertigo creating morbidness. Wholly relieved and cheered by one suggestion. Ten days later, another headache easily relieved. Condition remains good.

CASE VI. Rheumatic pains irregularly for years. Now in head, chest and legs. Came into office bowed and crawling. *Fifth* degree of sleep. Every sensation of pain disappeared under one suggestion. Went home erect and walking with ease. Eight suggestions followed; for many chronic ailments require repeated suggestions. Came each day in better condition, and pain always easily relieved. Moral suggestions created courage and ambition, which patient expressed at home, though he never remembered any suggestion. At final visit he said he was ready for any kind of muscular activity.

CASE VII. Sharp neuralgia of fifth pair of nerves in right face. Duration several days. *Third* degree of sleep. One suggestion wholly quieted the pain, which, ten days later, had not recurred.

CASE VIII. Acute bronchitis; incessant cough; pain in lumbar region. *First* degree of sleep. Cough arrested and pain quieted; Only one sitting; subsequent recovery, without return of spasmodic cough.

CASE IX. Rheumatism in shoulder and chest, twelve weeks. Wholly relieved by two suggestions. *Second* degree of hypnotism. One month later, sciatica. Resisted ordinary remedies for two days. Permanently relieved by one suggestion.

CASE X. Woke with severe sore throat, such as commonly had lasted for days. Cut short by one suggestion. *Fifth* degree of sleep. Later, intense neuralgia in sphincter ani; relieved by one suggestion; no recurrence. Three later suggestions for other ailments, relieved them. Effect, a remarkable increase in appetite and general health.

CASE XI. Slight hoarseness; cloudiness in singing-tone; difficulty in producing high notes and in sustaining tone. One suggestion (*second* degree) and fifteen minutes of repose. Voice was then unusually clear and brilliant in quality.

CASE XII. Girl of fourteen, constipation of severe degree during eleven years. Laxatives and injections a *sine qua non*. Three suggestions at intervals of two

weeks produced regularity which continued three weeks. A fourth suggestion renewed the regularity. *First* degree of sleep. Treatment is occasionally necessary, and is always effectual.

CASE XIII. Knee-strain; pain in movement, especially in mounting stairs; duration, four weeks. Hypnosis difficult; *second* degree. Four suggestions enabled patient to dance until 3 A. M. without return of pain.

CASE XIV. Bronchial cough so incessant that patient had not slept for several nights; hoarseness; voice just above a whisper. *Fourth* degree of sleep. After suggestion cough had ceased, voice merely husky. Patient slept ten hours without coughing; next morning up and dressed. No cough; hoarseness had returned; relieved by one suggestion. No later treatment necessary.

CASE XV. Painful hemorrhoids of large size. The pain, heat and tension were relieved by one suggestion, and patient slept soundly following night. Naturally this did not dispose of the hemorrhoids; but inflammation at once began to decrease because the patient no longer thought about the part and no further treatment was needed. In any view this treatment was better for the patient than morphia, and more efficacious than applications.

CASE XVI. Lady, aged sixty-three. Fixed ideas. At the time when the first suggestion was made her idea was that whatever she did was wrong. First attempt produced hypnosis of the *second* degree. After cheering suggestions, patient was more serene. At next sitting found patient considered it a sin to be hypnotized. This, of course, was a counter-suggestion, and it was immovable.

CASE XVII. Dyspepsia of long standing and distressing nature; insomnia and constipation. Patient aged sixty. *Fourth* degree of sleep. Stomach symptoms and insomnia relieved by two suggestions. Three other treatments caused steady improvement in the constipation.

CASE XVIII. Chronic and ceaseless headache in one spot. Has affected patient's mind. Occasional attacks of muscular twitching in face and arms suggested a cortical lesion. Patient refractory to hypnotism.

CASE XIX. Menstrual period delayed two months. *Second* degree of sleep. Suggested forcibly that period would appear on following day. Actually came on in thirty-six hours.

CASE XX. Constipation; laxatives necessary during past three months. First sitting a failure. Second *séance* patient reached *second* degree. Suggested relief of the trouble. Patient became regular for three days, after which suggestion affected permanent regularity and quieted severe dysmenorrhœa. Several weeks later same patient treated by suggestion for delayed period. Menstruation began within eight hours.

CASE XXI. Intemperance during past three years; whiskey the beverage. Patient educated, and occupies a responsible position. Looks bad; has anorexia, insomnia, constant headache, shaking hand; can hardly hold pen. Previous to suggestion writing nearly illegible; cannot write a letter. Easily influenced to *fifth* degree. Imperfect memory of suggestions on waking. Suggested perfect control of hand, loathing for alcohol and disappearance of abnormal symptoms. Twenty minutes later wrote a bold, clear hand. Head clear, strength increased. Slept well that night. Following day, looks and feels better; desire for drink decidedly lessened; hand-writing firmer, and again im-

proved by suggestion; appetite better; no pain in head. Three additional suggestions on following days. Patient now better in every sense. Can write correspondence with ease. Not only desires no liquor, but feels strange disgust when he thinks of it. Suggestion had steadily been that patient would feel just this loathing, and since memory on waking was imperfect, the result was the effect of the suggestion. Weeks elapsed, during which suggestions were made at long intervals, and herein was the error. Suddenly patient began to drink again. He at once put himself under renewed treatment, feeling the greatest confidence in its aid. The original application should have been continued daily without break for, at least, thirty days. Under a profounder and continued effect of suggestion, mental balance would perhaps have been restored. This is my only experience in treating intemperance by suggestion, but the result of the imperfect treatment is by no means discouraging, and I hope eventually to give this patient a permanent distaste for alcohol.

CASE XXII. Male. Imperfect articulation from paralysis of tongue; weakness of right arm. The single shock occurred in September last. Hypnotized with rapidity; after suggestion, articulated with greater ease. Four treatments followed. Patient now speaks without difficulty. Articulation clear, and hand-writing firm and natural. Was also relieved of constipation. Has "not been so regular in ten years."

CASE XXIII. Sciatica of four months' duration. Patient cannot sit without great pain; limps in walking. Easily hypnotized. On waking, patient dropped with his full weight into hard chair, and could kick affected leg and walk without the slightest sense of pain. Two days later returned for relief of slight recurrent pain. Suggestion renewed the original result. Have not since seen the patient.

CASE XXIV. Mental depression of long duration; pain in head and back; constipation; dysmenorrhœa; anorexia; insomnia. This was an obstinate case, which had resisted various forms of treatment, and patient was in despair. *Profoundly* hypnotized twice weekly for three weeks. Depression, pains and constipation have disappeared; appetite and sound sleep returned. Period occurring was the most comfortable for several years. Patient cheerful, even gay.

CASE XXV. Similar to foregoing, but with less depression. Catarrh of cervix uteri existed, and received two applications of carbolyzed iodine. Period delayed obstinately. Reappeared within two hours after suggestion. This patient responded to suggestive treatment most satisfactorily, and her general health is nearly normal. Still under treatment.

CASE XXVI. General lack of vigor; very frequent sick-headaches; heart lethargic; profuse leucorrhœa; indisposition to be active either in study or bodily movement; absolute anorexia. From the day of first suggestion, vigor, endurance, appetite, sleep, and power in circulation have all increased. Cheerfulness has returned. Case still under treatment.

CASE XXVII. Severe pain in shoulder and neck. *Profound* sleep. Patient wholly and permanently relieved by one suggestion.

CASE XXVIII. Lack of strength and appetite for twelve months. Entire system languid. Face pale; cold extremities. Patient reaches only *first* degree of sleep; nevertheless, nine treatments by suggestion have restored strength, appetite, sleep, vigor of mind, and facial color.

CASE XXIX. Neuralgia of the infra-orbital nerve, of several years' duration. Pain remits, but is obstinate. Three attempts to hypnotize were wholly fruitless. Patient is seventy-eight years of age, and pain was a steady obstacle to hypnotism.

The following are hospital cases:

CASE XXX. Abdominal tumor. Wandering pains, which are invariably relieved by suggestion.

CASE XXXI. Chronic hysteria; contracted legs; cystitis. Patient one day almost convulsive from fright caused by sudden palpitation of heart. Within two minutes patient was hypnotized. After necessary suggestion, I woke her five minutes later. She was calm, cheerful, and buoyant. Suggestions twice weekly have since kept patient calm and serene, and added largely to relief of bladder. General health and appetite have improved.

CASE XXXII. Torticollis in case of chronic and general rheumatism; much pain; head immovably drawn to one side. Slept quickly. Suggestion restored pliability of neck and relieved pain within ten minutes. No recurrence.

CASE XXXIII. Functional paraplegia and hemi-anæsthesia of twelve months' duration; result of fall; legs absolutely flaccid and powerless; always necessary for nurse to place the feet; leg muscles scarcely perceptible. First hypnosis *profound*. Lifting leg into horizontal position and defying patient to put it down, leg remained extended for a brief period, thus giving a diagnosis of functional paraplegia. Suggestions of ability to stand, raise legs, cross them, etc., have resulted after ten sittings in power during waking state to lift legs together into horizontal position, cross either leg over the opposite knee, and stand with ease during a limited period of time. Chronic constipation and spinal pains have disappeared, and retention of urine much relieved. Leg muscles largely increased in size. Used secondary current a few times for the pains in back. In this case suggestions were made more effectual by forcing patient to repeat them during sleep. Amnesia on waking. Later: patient can now walk.

CASE XXXIV. Ataxic conditions in a female. Staggering, spasmodic, jerky gait; Romberg symptoms; cane necessary; absence of knee-jerk. Ten suggestions have largely increased the power of this patient, who has discarded cane. While half awakened from the sleep she clutches her legs in a startled manner from the thighs downward. Says they tingle as if a stream of some sort were running through them.

CASE XXXV. Lack of power in legs from fracture of skull by a falling tree. Pain in one foot, of exquisite intensity, has lasted many months. Foot cannot bear weight of bed clothes. This pain was relieved by one suggestion, and six treatments have largely increased power in legs. In the beginning, crutches were indispensable. Patient can now walk, in a staggering manner, without them. Still under treatment.

This list might be lengthened, but seems sufficient as a testimony to the usefulness and rapid action of suggestion. In two of these cases heart tonics were given. In one I gave iron. In the remainder no drugs were used.

The claims of the therapeutic application of hypnotic suggestion naturally and properly will be met by many physicians with conservatism; by many others, I fear, with lack of interest. In anticipation of this, I will say simply that it is never fair to condemn a form of

treatment before one clearly understands it, and has become familiar with its application and results. We are still on the threshold of the possibilities of suggestive therapeutics. They will not reach every case. Neither do scores of familiar and generally helpful remedies. Exceptionally, suggestion fails even when deep sleep has been caused. It is hardly necessary to adduce instances of scepticism which have become transformed into general adoption of forms of treatment but recently condemned. I will, however, mention Listerism and antiseptics, laparotomy in various forms, and the use of electricity as a means of relief; and the list might be lengthened.

I can ask for hypnotic suggestion merely a fair hearing and personal trial. My own observation, study and experience have convinced me that, in verbal suggestion under hypnosis, we not only possess a remedy of great value, but that we have reason to be grateful, first and especially, for the knowledge of the treatment as applied by the Nancy school, and, further, to the faithful men who have done so much to develop as well as to bring it before the medical public, and who continue to be humble students in the path into which it has led them. At their head, as pioneer, I place Liébeault. Bernheim is his brilliant follower. To Liégeois praise is due for his profound study of the medico-legal bearings of the subject.

In closing my paper, I must express my thanks to all of these gentlemen (particularly to Professor Bernheim) for their unwearied courtesy to me during my recent study of hypnotic suggestion in Nancy.

In demonstrating hypnotism, I have nothing to show in the direction of hallucinations; because, in the application of suggestion, I have no other interest than in relieving my patients.

The four patients who have been kind enough to come here this evening will exhibit very clearly the various degrees of hypnotic influence from the second stage to profound sleep.

Upon my holding a finger and thumb before his eyes, the first patient sleeps at once. He is perfectly conscious, but, in spite of his utmost endeavor, cannot open his eyes. This is the second degree of somnolence. In this stage suggestion has relieved this gentleman of inability to use his tongue freely, a result of slight paralytic shock occurring in September last.

Patient No. 2.—Slowly counting seven, I tell the patient that before I reach seven he will be asleep. He is asleep. In this case you observe that catalepsy in the arms and rotatory automatism in the hands are well-marked, showing that the patient has reached the fourth degree of sleep. He is anæsthetic.

Patient No. 3, being requested to count seven, will fall asleep before she reaches seven. She falls asleep at six, whispering seven in sleep. Here catalepsy and automatic obedience are perfect. I ask her to rise. She does so. I request her to come toward me. She does so. Telling her that she cannot advance, but can go backward; then that she can neither go backward nor advance, obedience is absolute, and clearly shows that her mind is possessed simply by the idea I express. It should be easy to see that when ill such a subject can readily be helped by suggestion. This patient, as proved by the trial just made, can wake on the second after an interval of sleep, the duration of which I fix. I tell her to clasp the hands over her head, saying that when the fingers interlace she will fall asleep. This follows promptly.

Patient No. 4, at my request, takes six deep inspirations, and the suggestion, "you will fall asleep at the sixth inhalation," is realized. In this case catalepsy takes the classic form. The lifted arm is like a bar of wood, and if pressed downward springs back into place on being released. Anæsthesia is profound. Any operation might be performed upon this patient. Pricking the hands, cheeks and nasal mucous membrane with a pin there is no response. In the three other patients memory existed on waking. In this man absence of memory of all that has occurred during sleep is absolute.

Thus these four patients show a graded series of hypnotic influence, and enable me to exhibit the various tests of these different stages. The different means of hypnotizing these patients are merely various forms of suggestion.

REMARKS ON HYPNOTISM AS A THERAPEUTIC AGENT.¹

BY MORTON PRINCE, M.D.

I AM very glad to have this opportunity to endorse in the main the views which Dr. Osgood has expressed, and the results of his experience. I differ from him, in some particulars, regarding the theory of the phenomena and certain limitations which we should recognize in its use for therapeutic purposes; but in general, if I understand him correctly, I endorse Dr. Osgood's views; and I must believe that any one who will practice and observe for himself will, in the end, come round to the same opinion. There are some who boast that they have, "no personal experience with it," know nothing about it, excepting what they may have acquired from a little book-learning, and yet on this evidence condemn it. To such, I would say, "Examine for yourself."

"If it is true," Dr. Max Dessoir remarks, "that a youth is interesting on account of his promise, and a man on account of his achievement, we may safely affirm that hypnotism has now entered upon its manhood. For the investigation of hypnotic phenomena is now in the stage of achievement." Its phenomena have been studied for years and years, and during the past four or five years the study, as a science, has spread through England, France and Germany. It is impossible for any well-informed person to doubt, to-day, the phenomena of hypnotism as exhibited in normal people. I do not mean to say that no one can simulate them, for a patient can simulate tabes or disseminated sclerosis, but no one would say for that reason that these diseases do not exist.

In the field of therapeutics, hypnotism also has accomplished a great deal. It has made giant strides in France and Germany. I do not know but that the pendulum may have swung too far; very likely it has; if so, the pendulum will swing back and find its normal level in time.

My own experience with hypnotism for therapeutic purposes dates from two years ago, when I first used it. I have used it more or less in selected cases ever since. The results of this experience, on the whole, are favorable. I have had no cause to regret using it, but, on the other hand as I look back, rather wish I had employed it in other cases which balked my in-

¹ Made during the discussion of Dr. Osgood's paper before the Boston Society for Medical Improvement, March 24, 1890.