Hypnotism at Paris and Nancy. Notes of a Visit. By
 GEORGE M. ROBERTSON, M.B., M.R.C.P.E., Senior
 Assistant Physician, Royal Edinburgh Asylum, Morning-
 side.*

The subject of hypnotism has attracted great attention of late amongst the medical profession and the public. The accounts of its phenomena have sometimes been so extraordinary, and have bordered so closely on the miraculous, that intense interest was excited in them. As these statements were attested by men of science and of reputation, and as it was said that hypnotism had such enormous therapeutic possibilities before it, it was essential that serious attention should be given to the study of this subject by those interested in scientific medicine. This study was, however, commenced in this country with feelings of great distrust and reluctance, as it was notorious that for years unprincipled persons had imposed on the public by pretending to all manner of occult powers as mesmerists. They had so offended by these means the feelings of right-minded people, and had produced such a disgust of these phenomena, that many felt it was impossible to investigate hypnotism without contamination. In addition to this, discredit was brought on the subject by the fact that there were two schools in the field with opposing theories, observations and practice, whose pupils carried on a bitter warfare in the press. The most contradictory statements on matters of observation had been made by distinguished physicians, and phenomena had also been recorded which, if true, seemed to overturn the established laws of Nature and all our fixed ideas of things. In spite of the antipathy produced by these facts, one instinctively felt that underlying this mass of contradiction, absurdity and imposture, there lay important truths, and so, impelled by a mixture of scientific and idle curiosity, I paid a visit to the principal teachers in Paris and Nancy, to see with my own eyes what hypnotism was, and what use was being made of it. In the accompanying notes of my visit I have not attempted to draw up a systematic account of hypnotism, as this may be found in books,† but

* This article was presented to the Committee of Hypnotism appointed by the British Medical Association in 1890, by one of its members, Dr. Clouston.

† For the views of the Charcot School see "Animal Magnetism," by Binet and Féré, Vol. ix., Internat. Science Series. For the views of the Nancy

I have merely given a plain description of the phenomena I myself witnessed.

I. Demonstration by Professor Charcot.

The first person I called on in Paris was M. Ch. Féré, physician to the Bicêtre and joint author of "Animal Magnetism." He is one of Charcot's most distinguished pupils, and he introduced me to that great teacher, who with extraordinary kindness at once arranged a day on which to give me a special demonstration on the phenomena of hypnotism. On the appointed morning I accordingly wended my way to the historic walls of the Salpêtrière to Professor Charcot's room, where I found him with his assistants. He is a man of square, strong build, with a keen intellectual glance and a decidedly Napoleonic cast of features. It struck me as remarkable that this type should have produced two such powerful minds in this century.

Before giving an account of the demonstration I shall give a very short summary of Charcot's views on hypnotism. He has only studied it in subjects suffering from the graver forms of hysteria, and his variety is called Grand Hypnotisme in contradistinction to the Petit Hypnotisme of the Nancy School, which may be induced in the majority of healthy people. Charcot asserts that true hypnosis must be accompanied by definite and marked physical manifestations, about which there can be no simulation nor imposture on the part of the subject. He does not, therefore, regard as true hypnosis those peculiar psychical states of the Nancy School, many of which are unattended by any of the physical and somatic phenomena of his hypnotism. And in the cases in which these physical phenomena are obtained by the Nancy School, he affirms that they are dealing with a hysterical subject, for he believes the phenomena of hypnotism to be part of the neurosis, or, at least, closely connected with hysteria.

Charcot has divided hypnotism into three stages—the *Lethargic*, the *Cataleptic*, and the *Somnambulistic*. The usual method for inducing hypnosis is gentle pressure over the eyeballs, when the patient falls into the lethargic state, and becomes motionless, passive and unobservant. By opening the

School see "Suggestive Therapeutics," by Bernheim, 2nd Edition. Pentland, Edin. and London. For the special views of Dr. Luys see "Leçons Cliniques sur les principaux Phénomènes de L'Hypnotisme," par J. Luys. G. Carré, 58, Rue Saint-André-des-Arts. Paris.

eyes to the light the cataleptic state is induced, in which the patient is also motionless and unobservant, but the limbs retain any position in which they are placed. The somnambulistic state is induced by rubbing the top of the head, and now the patient is quite observant, walks about and answers questions. The *credivity* and readiness to receive suggestions are the most striking phenomena of this state.

The patient may be sent from one to another of these states with great ease, for closing the eyes of a somnambulistic or a cataleptic patient at once re-induces the lethargic state. The method of producing the waking or normal state is by blowing a few violent puffs on the eyes and clapping the hands near the face during somnambulism.

One of the first things that Charcot did was to show me these three states and the accompanying physical phenomena which characterize them. The patient came in and sat on a chair, and an assistant pressed gently with his finger and thumb on her eye-balls. In less than half a minute a change came over the patient, the eyelids remained closed and gently quivering, the face was blank and expressionless, and the limbs fell slack and motionless. She was in the lethargic state. The physical test for the lethargic state is the presence of neuro-muscular hyper-excitability, as, for example, when Charcot pressed on one of the ulnar nerves the muscles supplied by the nerve passed into a state of tonic contraction. The hand became slightly flexed, the ring and little fingers flexed strongly in the palm, the forefinger and the middle finger remained extended, and the thumb was adducted. Whatever nerve was pressed

FIG. 1.—Ulnar attitude, produced by pressing on the ulnar nerve in the lethargic state. (From Charcot and Richer).

on, a contraction resulted, which accorded with our anatomical knowledge, and which exactly corresponded with the contraction produced by electric stimulation of the nerve. This contracture persisted after pressure was stopped, and was removed by stimulation of the opposing muscles. One cannot help agreeing with Charcot that here there was a very strange nervous state which could not possibly have been

simulated, for not only were the anatomy and physiology of the nerves unknown to these women, but contraction of muscles could be caused, which are, as a rule, more or less involuntary, such as the superior muscle of the ear. This muscle responded in this as well as other cases in the most distinct manner on pressure, without any effort on the part of the patient. Moreover, the gradual onset of the contraction and its degree, which seemed to correspond with the amount of pressure, was so regular and accurate that I was impressed with the involuntary nature of the phenomenon. It may be mentioned that kneading the muscles and percussion of the tendons also caused contraction of the muscles.

Charcot next opened the eyes of the patient, and they remained wide open and rigidly fixed. The expression was changed, but still vacant, and it was found that the patient was now cataleptic, her limbs remaining in any position in which they were placed. The neuro-muscular hyper-excitability so characteristic of the last state had now completely disappeared, but the cataleptic condition which had taken its place was an even more remarkable peculiarity. The limbs were moved with the *flexibilitas cerea* sensation and they steadily remained in the position in which they were left. Charcot's pupils have demonstrated that this catalepsy is not a voluntary action on the part of the patient, although, of course, it is not physically impossible to simulate the attitudes. It has been found that if the movements of the arms and the respirations be conducted by means of Marey's tambours, and recorded on revolving cylinders, in true catalepsy the upraised arm in course of time gradually descends, and a straight line is recorded on the cylinder; and during all this time the respirations are steady and regular. On the other hand, in simulated catalepsy of voluntary origin, the movements of the hand in its descent are distinctly irregular and jerky, and the respirations, owing to the amount of exertion, get unsteady and irregular, and the lines recorded on the cylinder are very uneven.

Charcot's next step was to rub the hair gently over the frontal regions, when the expression of the patient almost instantaneously altered, giving one very vividly the impression of a statue coming to life. Instead of the fixed vacant stare and the stolid expression, the face suddenly became lit up with animation and intelligence. The patient now for the first time began to look around her, to notice things, and to answer questions in a natural manner. She was now in the somnambulistic state, in which, instead of mental torpor, there was

considerable mental activity, though of a peculiar kind. In this condition there is neither catalepsy nor neuro-muscular hyper-excitability, but there is now present another peculiar physical phenomenon, the musculo-cutaneous hyper-excitability. When Charcot gently blew on the woman's hand, or when he softly stroked her arm, the muscles immediately under the skin stimulated became rigid by contraction. To remove this contracture also, quite a different plan had to be followed than that formerly used, for it was sufficient to rub the part gently and the rigidity vanished, just as it had appeared.

These are some of the physical phenomena on which Charcot lays such great stress, and which he insists on saying accompany true hypnotism. There can be no doubt that they are extremely important, as they demonstrate that a very abnormal state of the brain has been induced, and that the various subjective phenomena, which we shall have to notice, are almost certainly due to the same abnormal state, and not to conscious simulation.

Charcot next demonstrated the state of the mind in hypnotized subjects during the state of somnambulism, and demonstrated that the personality became more or less changed. In the first case he showed me, the intelligence was very much weakened during hypnosis, and the young woman had great difficulty in writing her own name, and when asked to write the numerals up to ten, she blundered when she came to seven, nor could she write down thirty-four. Charcot then asked her who Cleopatra was, and after some hesitation she said "A queen;" but when asked who Mark Antony was, she did not know. Nor could she tell the names of her parents, or of the place where she was educated.

When she was wakened she looked much brighter, answered questions quickly, wrote well, and knew perfectly all about Antony and Cleopatra. There was certainly no doubt that her memory was much weaker during hypnosis. On the other hand, the next patient, a journalist by profession, seemed very keen and clever during hypnosis, and when asked to write some poetry, at once dashed off a most brilliant and witty poem, which I hardly think he could have done with the same spirit and success had he been awake. Féré has reported the case of a girl who, when hypnotized, recognized and told the name of a gentleman whom she was unable to remember in the waking state.

Although, however, some of the faculties may be more acute,

it is certain that the whole mental action is more unequal and irregular than in the waking state.

By far the most remarkable symptom of the somnambulistic state is the complete *credivity** and the extreme readiness to receive suggestions. It absolutely does not seem to matter what one suggests to the patient, for he implicitly believes all one says, so far as he can apprehend it. It is possible to alter the patient's personality in the most ridiculous way and to place him amidst the most imaginary surroundings, and he will act in as consistent a manner as if he had been accustomed to them from birth. It is not necessary to dilate further on this subject, for there are almost no limits, excepting those of one's own imagination, to the number and variety of suggestions that may be received, excluding those of criminal conduct, and these will be referred to later on.

It is not necessary, however, to develop these extraordinary trains of ideas and hallucinations in a direct way by verbal suggestion, though that is, of course, the easiest way. They will also arise spontaneously by the automatic activity of the brain itself from misinterpreted sensations, according to the laws of association. For example, Charcot, without saying a word, held a scent bottle under the nose of a female patient in the somnambulistic state, and she evidently imagined, from the automatic association of ideas, that she was in a scent-laden garden, surrounded by the rarest and most lovely flowers.

She slowly looked round the room, raised her hands, and seemed lost in admiration, then she stooped down, and pulling a flower to her, inhaled its delicious fragrance, next she walked along what was evidently a path, examining a flower here and there more lovely than the rest. She then commenced to make a bouquet, and selected flowers and plucked them off, and carefully placed them in the bouquet, turning it round and examining it from various points to see that it was artistically arranged; she occasionally brought it up to her face to inhale the perfume. In her search for flowers she seemed quite oblivious of her real surroundings, and sometimes jostled against persons and knocked against chairs, and the animated expression of her face and the childish exclamations of delight she uttered were most pleasing to watch. By simple association of ideas, therefore, a complicated series of hallucinations had been produced, which had so reacted on the patient's

* This word expresses better than *credulity* the special intensity of this state.

emotional condition as to make her supremely happy, and had so influenced her conduct, that her real environment and her personal relation to it were completely lost.

Charcot next performed some experiments with sheets of coloured glass, which he held in front of the patient's eyes. He first placed a yellow sheet of glass before the eyes of a hypnotized man, who at once exclaimed, "What a lovely day," as the yellow tinge of the glass gave the appearance of bright sunshine everywhere. After a while this man commenced to puff and blow and to fan himself as if he were suffering from the effects of the heat, and in another minute he had become so hot that he threw off his coat and waistcoat. Not a single word was spoken by us all this time, but owing to the association of yellowish light and sunshine, heat had become suggested to the patient, who certainly felt and looked uncomfortably warm.

A red sheet of glass was next placed before his eyes, and what the exact result of this was Charcot was not certain. He looked very miserable and anxious, and it was surmised that it had suggested blood to him, or an accident. While he was in this melancholy state Charcot commenced beating a marching tune on a sounding metallic instrument lying on the table near him, and the patient at first listened attentively to it, then pulled himself together, stood up, and acted as if he imagined he were a soldier.

He also held blue glass before the eyes of two cases. The first case was that of a man, but it was impossible to tell what effect, if any, it had on his ideas. In the case of a woman, however, it must have suggested the sky, and then evidently heaven, for she placed her hands together, raised her face and her eyes upwards, and her attitude of devotion was so lovely and perfect, and her expression so pure and intense, that she might have stood as a subject for a painter.

In some cases it is not necessary to originate these delusions and hallucinations, either by direct or indirect suggestion, as there is an active delirious state produced by hypnotism. One young man whom I saw had hallucinations of sight, which are the commonest variety, but whether these occurred only in alcoholic subjects or not, Charcot could not say. The patient referred to imagined he saw beetles everywhere, and during the whole somnambulistic period he never for a moment desisted from his occupation of first catching them, then dismembering them, and finally trampling on them. Many seemed to be purely hallucinations, but others were illusions produced by

blots on paper or marks on the floor; and he once very nearly succeeded in obtaining something substantial by clutching Charcot's button of the Legion of Honour.

I also saw an old man at Nancy, who, the moment he was hypnotized, began to talk about Paris and the Champs Elysées, and his former life there.

Although the majority of cases receive suggestions readily enough, some do not do so, and one case which I saw most obstinately refused to take suggestions. Charcot desired this man to do some writing, but, in spite of every persuasion, verbal suggestion alone failed to penetrate to his consciousness, but finally he was induced to write a little by placing the pen in his fingers and holding it there.

The alteration in the sensory condition during hypnosis is often of a very remarkable nature, and some interesting phenomena were demonstrated to me.

During the lethargic state there is usually complete anæsthesia of the skin, so that the subject may be pinched and pricked with pins without wincing. It is, however, during the somnambulistic state that the most interesting phenomena manifest themselves, and these are of such a nature that they cannot easily be simulated, as, for example, the anæsthesia of the lethargic state may.

The first experiment was on colour sensation, and it was repeated with several different patients. Charcot held a small pack of white cards in his hand, and pointing to the top card said it was a beautiful red colour. "Yes," replied the patient. "A very bright red," added Charcot. "Yes, a very pretty red," again replied the patient. Charcot now rapidly removed the card and asked what colour the next one was, and the immediate response was "green," which of course is the complementary of red. This test was applied to several cases, with the different primary colours, and never was there any hesitation in answering—except in one case with violet—nor was the wrong complementary colour given. This experiment demonstrates that when a hypnotized person receives a suggestion—such as that of colour—distinct changes are induced either in the brain or in the retina, and these changes resemble those induced by sensory stimuli from the outside.

Another experiment, also repeated several times, was to demonstrate the extreme acuteness of the sense of vision in some of the hypnotized. An assistant took up the same pack of blank white cards, and made the faintest spot with a lead pencil on the back of one of them in order to recognize it. He

placed this card on the top of the pack and told the patient that it was a photograph of Charcot, pointing out with his finger Charcot's head, the table he was sitting beside, and his arm resting on it, with a book in his hand, to all of which the patient assented. She admired the photograph greatly, and begged to be allowed to keep it. The cards were then handed to me, and I took the marked card and turned it round so as to make Charcot's photograph upside down, and placing this card in the middle of the pack, I handed it back to the patient without having let her see what I had done. She took the cards, rapidly threw off the upper cards, and with as great rapidity and ease as we would recognize the ace of spades she seized the marked card when she came to it. She immediately turned it round and began to admire the photograph. I examined the back and found it to be the marked card. By what markings she recognized this card it was quite impossible to say, for the card was white, without a spot on its face. Yet Charcot stated that her vision was so acute as to detect marks on the card, and these marks formed portions of his imaginary photograph, and by these means not only did she recognize the card, but could also tell whether it was upside down or not. It has been demonstrated also that had this pack been photographed the patient would have recognized the photographed card with the same ease as the original.

The next experiment showed abnormally active powers of vision, and also possibly of the muscular sense. Charcot asked a young man to write some poetry, and he placed before him a packet of paper. After he had written two lines, and when he was not looking, Charcot suddenly jerked away the top sheet from the packet, leaving of course the next sheet of paper beneath. The patient appeared not to notice the absence of his first two lines, and went on writing on the clean sheet exactly at the place he would have written had the two previous lines been on the sheet. Charcot did the same trick on four different occasions, sometimes when the patient was in the middle of a line, but he always continued writing at the correct place as if the whole poem were on the clean sheet before him. When he had written six lines a clean sheet was left as before, and he was told to fill in the stops and to correct his writing. He carefully read over the clean sheet of paper and filled in the stops, and the strokes, dots and accents that were needed. This was done so carefully that there was only one omission to be seen, one *i* not being dotted, and no strokes or dots were

added where they already existed. The corrections he made are not in position mathematically accurate, this perhaps being due to the fact that the packet was slightly moved and disarranged, still they are all placed very nearly where they should be. To account for this extraordinary phenomenon it may be

FIG. 2.—Two lines of a poem composed and written by a patient in the somnambulistic state.

FIG. 3.—Corrections in the writing and punctuation of the above two lines of poetry, made on another clean sheet of paper.

that the man carried in his mind the exact image of his writing, which must have been projected before him on the sheet he was writing on. This seems almost certain, for when he corrected his writing he seemed to follow with his pen imaginary lines of writing on the paper.

The other senses, hearing and smell, are also sometimes excessively acute, and one of the strongest reasons for extreme care in all experiments with hypnotized persons is, that it is quite possible they may overhear whispered directions and so learn the nature of the experiments one is making.

A very curious phenomenon in connection with these hallucinations which I have just mentioned is, that frequently they persist for a long time after the patient has awakened from the hypnosis and is in her normal frame of mind. This is one of the post-hypnotic phenomena, and is made use of in the Nancy School for purposes of treatment. These young women who had seen Charcot's imaginary photographs, when they awoke and saw the pack of cards lying on the table, all begged to be allowed to keep the photograph, and it had to be taken away from one.

During the course of the demonstration, also, Charcot took advantage of M. Féré's good nature, and depicted him in the most fanciful shapes to some of the patients. To some he described him as having a nose like the trunk of an elephant extending many feet in front of him, and so muscular and flexible that it could twist about in all directions. To others he described him as having a frightful and grotesque appearance. Later on, when we were leaving the place, we passed through a hall in which many of the patients were congregated, and M. Féré was greeted with peals of laughter and jeers from some of the women, while others turned away from him in horror and disgust. M. Féré told me this might last a few hours or for several days.

There is another variety of post-hypnotic suggestion, which M. Féré showed me on a subsequent occasion. He told his subject when she was in the somnambulistic state that his assistant was a thorough blackguard, and that before she left the room she was to tell him so to his face. She was now awakened, and then told that she might go. The patient's conduct and face now offered a splendid psychological study. One could see that she was annoyed, and was thinking over something unpleasant, as she slowly put on her jacket and adjusted her bonnet. Now and then she shot a sidelong glance in the direction of the assistant, and a scowl passed over her face, but as a rule her gaze was averted from him. She then asked M. Féré rather crossly what he was looking at? but he evaded her question, and said "Nothing at all." She now had her gloves buttoned, and rapidly approached the door, but after she had opened it she wheeled suddenly round. The unfortunate assistant was standing near the door, and she looked him full in the face, with an expression of great malignancy, uttered the words "You scoundrel!" and instantly disappeared, slamming the door behind her. This case was very instructive, for it was obvious that the poor

woman, who knew the assistant well, and was on good terms with him, was acting a most disagreeable part, under a compulsion which she could not resist. It illustrates the strength of a suggestion received in the somnambulistic state.

The phenomena of suggestion which I have described so far have all taken place during the somnambulistic state; there is, however, a very interesting series during the cataleptic state. In this state it was found impossible to suggest verbally, but there was a very active suggestibility through the muscular sense, especially of emotional conditions. The subject being cataleptic, it was of course possible to place the limbs in any desired position, and it was also possible by manipulation to cause contraction of any of the muscles of the face, and so to make the face assume any expression one wished. When by these means any definite expression was produced it was invariably found that the patient assumed an attitude which was strictly in keeping with the emotional state expressed. For example, when Charcot corrugated the eyebrows and depressed them slightly, the patient at once drew back in a defiant attitude and clenched the fists as if prepared to fight. When the zygomatici were pressed so as to draw up the angles of the mouth as in laughter, the frown suddenly vanished from the eyebrows, the clenched fists opened, and the attitude and expression were in complete accord with that of a person enjoying a hearty laugh. By these means all the attitudes and expressions for the stronger emotions were in turn suggested, but it has been proved that the emotional feeling is not very lasting or deep, for if a tracing be taken of the respiratory movements, which are greatly affected in the stronger emotions, it is found in the cataleptic state that after a preliminary and very transitory irregularity, the movements of respiration are unaffected.

It has been mentioned that the cataleptic state is induced by opening the eyes of the lethargic patient, but it is found that if only one eye be opened the patient only becomes hemi-cataleptic. The result of this is that all the expressions of the face are one-sided, the lethargic side remaining vacant and motionless. This peculiar phenomenon admitted of a very strange experiment being performed, for a lethargic patient had one eye opened, and on the cataleptic side of her face the expression of anger was induced. The other eye was now opened, which rendered the other side also cataleptic, but here the expression of laughter was induced, and therefore I had before me a person angry with one side of the face and laugh-

ing with the other. The appearance was very odd and peculiar, and the effect was rather confusing, due of course entirely to a subjective feeling.

Before concluding the demonstration Charcot illustrated to me the close connection between hysteria and the hypnotic condition by suddenly producing catalepsy in an hysterical patient by bringing down a heavy magnet he held in his hand on the table with a loud noise. The patient was walking across the room to go away, and the catalepsy came on her so instantly that she was fixed in the attitude of raising one foot from the ground. By rubbing her scalp she became somnambulistic, and by closing her eyes lethargic, just as if hypnosis had been induced in the ordinary way. Of the therapeutic uses of hypnotism Charcot did not say a single word to me. He indeed pointed out that a woman who had hysterical paralysis of one leg, walked about and seemed all right during hypnosis, and that though he might temporarily remove the paralysis by suggesting its disappearance, that such a remedy did not treat the disease she laboured under, but only allayed one symptom. He treats his cases of hysteria according to the principles most approved of here. Seclusion, fattening foods, and a physiological mode of living. What then, we may ask, are the uses of hypnotism according to Charcot? The question has been concisely answered by M. Féré, that the hypnotized hysterical woman is to be regarded as "the psychological frog," and that what the frog has done for physiology, the hysterical woman is to do for psychology. Without advocating the practice of this view, there can be no doubt that many obscure points of psychology have received wonderful illumination from hypnotic phenomena. It is sufficient to mention that hallucinations, illusions, delusions, false identities, and morbid emotional states can be produced at will and varied at will, and that insane impulse, one of the most important social problems connected with psychology, can in its minor degrees be artificially induced in the post-hypnotic state.

In conclusion I feel bound to express my thanks for the extreme kindness of Professor Charcot and of M. Féré, and for the honour done me by such a laborious demonstration. I was struck with admiration at the brilliant success of the experiments, which worked with the precision that one expects in physics, but which one is quite unprepared for in physiology. This complete success all along the line may have helped to convince me of the reality of the phenomena, even without

confirmation by the various tests I have described, but there was one little piece of human nature at the beginning which also went far to persuade me. The first young woman to be hypnotized had been found somewhat unprepared for Charcot's lecture, but rather than keep him waiting, the nurse had insisted on bringing her in before us somewhat in *deshabille*. Though every hysterical subject craves for a pedestal, no woman, how much less a Parisian, cares to pose while slovenly and inartistically attired, so she scolded with a volubility only possible in a French woman, till she was hypnotized. When she awakened she instantly carried on the indignant scolding as she had left off, till she was stopped by a hystero-epileptic fit. It is improbable that this impulsive woman would have allowed her vanity to be trampled on for the sake of a scientific experiment.

II. *Professor Bernheim's Treatment by Suggestion.*

I shall next describe my visit to the School of Nancy, as being the headquarters of the opposite camp. M. Liébeault is really the founder of this school of hypnotism, but he is now an old man and has retired from practice, though he is still most enthusiastic about hypnotism, and takes a keen interest in all visitors. For many years he practised hypnotism as a purely therapeutic agent among his own patients, but he was regarded as a crank, and, as he told me himself, he was called "the fool of the Rue Bellevue." Finally Professor Bernheim was induced to give this agency a trial, was convinced of its usefulness, and by his reputation at once attracted attention to the whole subject. Professor Bernheim is a short man, well up in years, of simple habits, and of a genial, kindly disposition. Bernheim believes that almost all sane people are capable of being hypnotized, that the state may be induced by a hundred different methods so long as it is suggested to the patient, directly or indirectly, that he is being hypnotized, and that the state is mainly characterized by an extraordinary readiness to accept suggestions. Suggestion is the keynote of the whole process, for hypnosis is induced by suggestion, and the subject's whole conduct and ideas are afterwards governed by suggestions.

Bernheim's object in using hypnotism is purely a therapeutic one, so he invited me to accompany him round his wards to see his treatment. One of the first cases we saw was an outpatient, who had come up that day for the first time. He was an elderly man, who was suffering severely from sciatica.

The case was a typical example of the disease, with well-marked symptoms, for the man could hardly stand, and the pain he suffered on pressure made him groan. After examining the case carefully, Bernheim told the man he would cure him and asked him to sit down in a comfortable arm-chair. He now told him not to be alarmed at what he was going to do, for it would not disturb him in the slightest, and he requested him to calm his thoughts and prepare himself to go off to sleep. The man settled himself comfortably in the chair and looked steadily forward in front of him. Bernheim stood at his left side and placed the palm of his hand on the man's forehead, and spoke to him, slowly, in a quiet and gentle tone of voice, much as follows: "*You are feeling calm ; you are feeling comfortable ; you are feeling at rest ; my hand is soothing your brain ; you are beginning to feel drowsy ; your arms are feeling quite heavy.*" Here he took up the patient's hand with his own disengaged left hand, raised it slightly, and let it fall. He then said : "*Your eyes are beginning to ache ; your eyelids are feeling heavy ; you can scarcely keep them open ; they are beginning to close ; they have closed.*" While he was saying the last few words he slowly brought his hand down over the patient's eyelids and gently closed the eyes, when he continued, keeping his hands over the patient's eyes. He now said : "*You are beginning to feel sleepy now ; you are gradually going off ; in another minute you will be sound asleep—sleep—sleep—you will soon be sound asleep.*" He repeated these last sentences several times, gradually laying stress on the words "sound asleep." He then continued : "*Sleep—sleep—you are nearly asleep now ; you are just going off ; you are now asleep ; you are sound asleep—perfectly sound asleep.*" These last sentences he spoke with the slightest tone of authority and of positive assurance in his voice. The patient's face had now acquired an impassive expression, and he was breathing slowly and deeply, but, otherwise, there was no marked change in his appearance. Bernheim now told the man he was going to remove the pain. He told him that the pain was gradually going away, that the leg was feeling easier, that the pain had become much less, and that, in fact, it could hardly be felt now. While he was saying this, he passed his hand along the leg, to suggest that some active measures were being used. He then said suddenly, with positiveness, that the pain was gone, and he asked the man if that was not so. The man replied that it was much easier, but that he still felt it. Bernheim replied that he would not stop till he had entirely

removed it, and he again suggested that the pain was going away, and was getting gradually less and less; that his leg was feeling quite well now, and that there was absolutely no pain left in it. Then he again said, most positively: "Your leg is quite cured now; you don't feel any pain in it, do you?" The man replied that he did not, and that all pain was gone, but when Bernheim began pressing the nerve trunk he again said he felt a little pain. Bernheim then assured him that he would remove every particle of pain and that he would make him walk about the ward quite smartly, and so he again said that the pain was leaving, that it had now entirely left, and that there would be no more pain on pressure, and that he could walk about quite well without pain. Bernheim then asked the man to stand up, and to say how he felt; he replied that he felt quite well. He then pressed on the nerve and it produced no pain, and he then asked the man to walk along the ward, which he did with perfect ease. He now told the man to sit in the chair again, and ordered him to continue sleeping for five minutes; at the end of that time he said that he would awaken, feeling fresh and well and in good spirits, and that the pain would be completely gone from his leg and would not return again. After a few minutes the man awoke, looking quite bright and as if a great weight had been taken off his mind. He showered his thanks profusely on Professor Bernheim, and when he left he marched away almost jauntily, disdaining the help of a female friend and of a big stick, on both of whom he was so dependent not a quarter of an hour previously.

I have entered into the minute details of this case, as it is ignorance of these which prevents many from making use of this treatment. Concerning this case, I asked Bernheim if the pain would remain away permanently, and he replied that he could not tell; that the pain might possibly return after the first sleep the man had, or it might return in a day or two, or not at all, and that if the pain did return the man could easily be hypnotized again.

One of the next cases I saw was a boy about twelve years old, who was suffering from purpura hæmorrhagica. He suffered from pain in the muscles of the legs and thighs, which was very severe on pressure, and, being nervous and timid, when I touched his limbs he screamed out. I concluded that this pain was due to hæmorrhages in the substance of the muscles. Bernheim very speedily hypnotized this boy, and suggested to him that the pain had entirely gone. When he

awoke, he allowed me to squeeze and press his legs as I pleased, without feeling any pain, and next day I did the same without hurting him. That this recovery from pain was real no one would deny who had seen the boy's fright and had heard him scream when I touched him previous to being hypnotized.

Another case I saw was a widow woman of middle-age, who came as an out-patient for the first time. She complained of severe pain in the right lumbar region, which had lasted for several days. She was certainly a most hysterically emotional woman, and it was very difficult either to examine her or to get an account of her symptoms. Whether Bernheim diagnosed ovaritis, salpingitis or perityphlitis I do not know, but he hypnotized her after a little difficulty, as she was nervous, and completely removed the pain. She was then kept in the hospital for further examination and treatment.

FIG. 4.—Attempt at writing of a girl, suffering from Right Hemi-chorea. The letter L can be distinguished. (From Beaunis.)

FIG. 5.—Writing of same girl, after having been hypnotized by M. Liébeault. (From Beaunis.)

Another case was of a boy who suffered from chorea, a disease sometimes particularly amenable to hypnotism. He

had been in the ward for some time and had improved greatly, but a considerable amount of movement still remained, which made taking his soup, the occupation I saw him at, a difficult one. He was quickly hypnotized, in about half-a-minute, and he was told that the movements were not to take place and his hand was to be much steadier. His hand decidedly improved, and he finished his soup with much greater ease.

I also saw a man who was suffering from insomnia. He had been hypnotized the day before for the first time, and he had slept soundly during the night as had been suggested, although he had not done so for five nights previously. He was again hypnotized, and told to sleep well at night.

A girl who suffered from nocturnal enuresis was also hypnotized, and it was suggested to her that she was to awaken four times regularly during the night. On next day's visit I learnt from the sister of the ward that she had conducted herself according to her orders. Bernheim stated that children can be very readily hypnotized, and that this disease is particularly suitable for this treatment.

A young man, who was in the hospital for phthisis, complained of ordinary neuralgia over the frontal region, and he was hypnotized and the neuralgic pain dispelled.

In addition to those I have described, there were a large number of cases which received suggestion of one kind or another during the hypnotic state, such as cases of pneumonia, empyema, phthisis, mitral stenosis, hemiplegia, and hypertrophic cirrhosis of the liver with jaundice. Bernheim treats all his cases according to the established therapeutic methods; for example, the case of jaundice was getting podophyllin, but, in addition to this, he uses hypnotic suggestion whenever there is any unpleasant accompaniment that may be removed, such as pain, uneasiness, anxiety, despondency, nervousness, want of appetite, sleeplessness, etc. The case of pneumonia, for example, was told that his breathing was easier, and that all pain had gone; the case of phthisis that his cough was less, and that he must take his food well, and all cases whatsoever that were hypnotized were told, previous to being awakened, that they were to be contented, happy, and cheerful. In this way there was no doubt that much was done to make the patients easier and more comfortable.

One of the cases that came up for treatment, or rather was brought up, was a case of early general paralysis of the insane, and though the symptoms were not at all well-marked, Bernheim diagnosed the case immediately. The man was

confused and hazy, and somewhat weak-minded; he could not do his work and complained of weakness and tremblings in his limbs. Bernheim attempted to hypnotize this man, but it was extremely doubtful if he was hypnotized in the slightest degree. He opened his eyes the moment Bernheim took his hands off his forehead, and though he performed some slight movements according to suggestion, I think it highly probable he would have done so without being hypnotized. The only point which told in favour of his being hypnotized was when asked how long he had slept, he said five minutes. I must record, however, that I certainly did not believe him to be hypnotized. Bernheim told me that the insane and those weak in mind were very unfavourable cases to hypnotize.

There is, perhaps, one other case I should mention, of a man who, when Bernheim approached to hypnotize him, got very agitated and trembled all over. I do not know what ailment he suffered from, but there can be no doubt that he was in a very nervous and timid state. Bernheim did not long persist in attempting to hypnotize him, after he found that persuasion did not calm or reassure him, but left it to time and familiarity with the sight of others being hypnotized to overcome his prejudice.

It is a very difficult thing to tell by any external sign when hypnosis has occurred in these patients of Bernheim. When hypnosis is induced by staring at a bright object, the onset of the hypnotic sleep is betokened by the closure of the eyes, often very sudden and accompanied occasionally by a slight spasm or start of some of the facial muscles. But when the eyes are closed by the hand, as Bernheim does, this test is lost. His patients very often performed one or two swallowing movements as they were going off, and the breathing also became slower and deeper, and the expression of the face became less intelligent or, at least, changed from the natural one. Then there were two tests Bernheim almost invariably used. As the person was being hypnotized, he would hold up one of the arms and then slowly let it go. If the arm fell the patient was, as a rule, not hypnotized, but when hypnosis had taken place the arm assumed the cataleptoid posture. In the latter instance the patient had, I presume, received the suggestion that the arm was to be held up, and having become suggestible through hypnosis, had strictly followed the suggestion. Bernheim also very often commenced revolving the hands of the patient round one another, and if he received this suggestion and continued doing so, he was regarded

as hypnotized. An increased suggestibility is, therefore, the test of hypnosis in the eyes of Bernheim, and therefore the lesser degrees of the hypnosis of the Nancy School can be nothing more than a peculiar psychical condition. The cry of Charcot for physical signs of hypnosis which cannot be simulated, is therefore in these states a vain one, for the only tests that can be applied are psychical ones. But these psychical tests may be just as satisfying as physical ones, and for myself I feel absolutely convinced by the certain manner in which pain was relieved in a few minutes, that a peculiar psychical state had been induced, which enabled this to be done. I am sure that no one could come to any other conclusion who had seen Bernheim at work in two large wards, one for each sex, full of patients of all ages, and suffering from very various complaints.

At first one is sceptical and very doubtful if hypnosis have really occurred in the lesser degrees, as the patients look so natural and are so conscious of all that goes on around. Sometimes, too, they even open their eyes during the middle of the treatment, while suggestions are being made, and they have to be told to close them. But the proof of the hypnosis is in the results, for even in these cases pain is dispelled if present. Perhaps, however, it is not till one has oneself relieved pain by suggestion in such a case, much to one's own surprise, that all doubts are finally settled.

It is well for those beginning, to remember how slight hypnosis may be, when this suggestible state of mind has been induced, and when it is quite possible with a very little persistence to suggest the removal of a pain. This is not surprising when it is known that in some people this state of mind exists in the waking condition, without ever having been hypnotized.

In Bernheim's wards I saw two men to whom, without hypnotizing them, he gave suggestions, or I might almost say orders. And although perfectly ridiculous, the patients carried them out, and then laughed at their foolishness, but apologised that they could not help it. One man he ordered to drink a glass of imaginary beer, which he did, and also to revolve his hands about one another, which he had to continue doing till permission was given to stop; and another man was ordered to get out of bed, to cross the ward, and to scold the patient in the corner bed. The man did as he was ordered, gave the man a most hearty scolding—indeed I thought he was about to assault him, and then when I asked him why he had done so,

he said he could not help it and felt that he must do it. These two men were not hypnotized in Charcot's sense of the word, yet they were in a peculiar state of mind very ready to receive suggestions, by which extraordinary cures have been effected.

The vast majority of Bernheim's patients require some coaxing such as I have fully described before they get into the suggestible state, even though they all come to him in a state of mind of abnormal tension and expectancy. They feel that this man has some occult power over them, and that he is able to put them into a peculiar sleep, so that they fall ready victims to his artful wiles and suggestions. There is no doubt that this frame of mind exists in Nancy, for I questioned my cabman as he was showing me the town in an artless and innocent manner about hypnotism and its powers. He told me that he had never been treated, but that friends of his had, and that Bernheim had the most wonderful powers, their indefiniteness, no doubt, lending a useful mystery to them, and that he was able to cure all the lesser diseases. I was also told at Maréville, a great asylum near Nancy, where hypnotism was once practised but has now fallen into disuse, that although hypnotism had done much good to individuals, that it was the general impression amongst medical men in Nancy that it had done more harm than good by inducing this peculiar frame of mind in the people—this belief in occult powers and in the power of one man's mind over the conduct of another.

Whether this state of mind is absolutely essential for the production of hypnosis or not I cannot say, but it certainly is a very important aid, and it has been noted, that watching others being hypnotized, if done successfully, renders the induction of hypnosis more easy. In a place like Nancy, where hypnotism is an established fact, the operator has thus every assistance, but in this country, where hypnotism is looked on with scepticism and even antagonism, the operator is severely handicapped.

Bernheim also gave me a demonstration in connection with some of the phenomena of hypnotism. In one case he suggested, as a post-hypnotic phenomenon, that a regiment of soldiers was to pass along the street with the band playing, and the patient shortly after waking, jumped out of bed and rushed to the window, where he watched the regiment and listened to the band with great pleasure. In another case he suggested that a dog would be seen running about the room, and that it would jump into the patient's bed, all of which

happened, for the patient got very angry, and kicked the brute out. One of the most amusing sights he ever saw, Bernheim told me, was the astonishment of a patient to whom he had suggested that instead of a human being there was a dog in every bed in the ward.

Bernheim now concluded with an exhibition of the most extraordinary phenomena I saw on my visit, what has been called negative hallucinations or systematic anæsthesia. These took place in an hysterical young woman, and it may perhaps be mentioned here by the way that Charcot asserts that in those cases in which Bernheim reproduces, by his own methods, Charcot's phenomena of hypnotism—that he is dealing with an hysterical patient. Charcot asserts this, of course, because he does not believe his phenomena to occur except in hysteria. Bernheim affirms, on the other hand, that he can reproduce all Charcot's phenomena by suggestion in ordinary people, but the very limited demonstrations I got did not convince me of this. Bernheim's catalepsy by suggestion was not like true catalepsy, and was much more like voluntary posturing, nor did he reproduce neuro-muscular hyper-excitability satisfactorily, but he states that this is a mere matter of education, and that by practice he could train his cases to make the contractures just as correctly as Charcot's.

But to return to negative hallucination, what is meant by the term is, that as in positive hallucinations an image is created where none really exists, so in negative hallucination a blank is created, where a real object exists. Thus, a patient may be told that she has no hands, and she will not be able to see them or to feel anything touching them, and to her consciousness no hands exist. What adds to the interest of the phenomena I am about to describe is, that they took place in the post-hypnotic state, when the patient is supposed to be in her right mind.

Bernheim hypnotized this woman and then suggested to her that on waking she was not to see himself, that he would be gone away. She was then awakened and soon after expressed surprise at Bernheim's absence. She then began to talk to and to amuse herself with one of the assistants. Bernheim during this time walked up to her, and stood beside her, and touched her on the face and hands, and she took not the slightest notice of what he did, and completely ignored his presence. He then called for a pin, and as one of the assistants came towards him with it, the patient ran away laughing and scolding, as she thought the assistant was going to prick her

with it. The moment, however, he handed the pin to Bernheim, she no longer saw the pin and took no further notice of it, though Bernheim bared her arm and stuck the pin right through the skin. Her total insensibility to all that related to Bernheim was most astonishing, considering that she appeared thoroughly awake and talked quite naturally. Bernheim now removed the pin, and as unfortunately it had pierced a vein, there was a good deal of bleeding. Bernheim called for a bandage, and as the assistant again approached her the patient wanted to know why he wished to bandage her, as there was nothing the matter with her. When Bernheim took the bandage she paid no further attention to it, and allowed her hand to be quietly bandaged, as if nothing were being done to it. When Bernheim again called for a pin to pin the bandage, she again got excited as the assistant wished to pin it, but her fears at once subsided when Bernheim took the pin. She now expressed great concern at the blood she saw on the floor, and wondered who had met with an injury, and when one suggested it was herself she laughed at the idea. Bernheim again hypnotized her and told her on waking that she would feel no pain in her arm and that she would not see the blood on the floor and that she would see him. When she awoke she looked at the bandage on her arm and wondered why it had been put on and at once began to take it off. She spoke to Bernheim now, and when he pointed to the blood on the floor she looked in vain for it and could not see it.

These phenomena of negative hallucinations throw a light, I think, on the mechanism of the removal of pain, which from one point of view, is nothing more than suggesting the negative hallucination of absence of pain when in reality pain does exist. Just as in the one case, although a man was standing before the patient and the retinal impression of his form did not reach the regions of consciousness, so in the latter case, although the nerves of a part are being so irritated that an ordinary person would feel pain, yet the impression from the nerves is not allowed to affect consciousness; it is blocked somewhere. This explanation, if true, offers a reason why the pain produced by organic causes—and not only functional pain—can be so perfectly removed. There is probably little doubt that it is by acting on the highest regions of consciousness that this anæsthesia is produced, just as in the case of chloroform, and Bernheim has suggested that the hysterical anæsthesiæ are also due to cortical lesions affecting the highest mental functions.

A very curious addition requires to be made to these phenomena of negative hallucination, which, although I received no demonstration of it, Bernheim informed me existed. When the patient was in the state in which she could not see or hear Professor Bernheim, although he was standing beside her and speaking to her, yet if he suggested to her with a little persistence to go across the ward, for example, and pick up a book on the table and look at the first illustration in the book, she would, after a short time, do exactly as he had suggested. If one of the visible persons now asked her why she had done this, and why she had looked at the picture, she would answer in some such way as this, "I accidentally caught a glimpse of the book, and wondered if there were illustrations in it." The patient would be under the impression that she was acting of her own free will, whereas in reality she had received a suggestion from the outside, an unconscious suggestion. Although I have previously said that the anæsthesia was produced in the highest regions of consciousness so that particular impressions from the outside were blocked, yet it is evident from these last observations that, although the stimuli received in these particular regions are not strong enough to produce a vivid conscious feeling, yet they do reach these regions and may be strong enough to set up trains of ideas.

The peculiar fact to be noted in connection with negative hallucination is not simple anæsthesia, but anæsthesia for a particular series of sensations, all others being perfectly well perceived.

When at Nancy I also met M. Liégois, Professor of Law, who has devoted great attention to the legal relationships of hypnotism, and who was the advocate who so strongly supported the idea that it was possible, if not probable, that Gabrielle Bompard had been hypnotized by Eyraud, and had received the suggestion to assist in committing murder, and that therefore she had not acted of her own free will. He informed me that if he could have seen Gabrielle, who was known to be a good subject, for five minutes before the trial, he could have suggested such negative hallucinations to her as would certainly have convinced the judge and jury of the immense possibilities of hypnotic suggestion.

The School of Nancy are strongly of opinion that hypnotic suggestion can be made use of for criminal purposes, but, on the other hand, Charcot and his followers sneer at the idea, and say that this is entirely imaginary. So far as I am aware no

case of the use of hypnotism for suggesting criminal conduct to another has yet been proven in the courts of law, but the Nancy School point to a large number of experiments which seem to demonstrate the truth of their theory. For example, people have been given paper daggers and told to stab a certain individual, who had evil designs on them, and they have committed these imaginary murders. On the other hand, these "crimes of the laboratory," as the Charcot School love to call them, are committed under very artificial circumstances, and many people have a strong impression, founded partly on the confessions of subjects themselves, that there is an under-current of consciousness in the patient's mind that it is all right, that it is not real, and that nothing will happen to them. In addition to this there are many examples in which the patient has demonstrated a certain amount of free will and has refused to follow the suggestion, especially when the act suggested is quite contrary to the whole current of their being. Which view of the case be true one cannot say, as the matter may still be regarded as *sub judice*, but I may state that the Nancy School assert that a crime may be suggested and the subject forced to carry out the suggestion. It may also be suggested that the crime was entirely spontaneous and had not been planned by another, and by these means the real criminal would not be discovered, as the subject would assert that she alone was guilty. They also state that the evidence of witnesses may be tampered with by means of hypnotic suggestion, and Bernheim demonstrated this to me. He suggested to the hysterical case of whom I have spoken that she had robbed a till, and when she awoke she confessed to us, with weeping and other signs of great sorrow, that she had really done so. If this young woman could be made to confess, when in the waking state, that she had committed this crime, which was so abhorrent to her feelings that she wept copiously and showed all the signs of grief, how much easier could false information be suggested in matters of observation and common evidence?

In conclusion, I have to express my thanks to Professor Bernheim for his kindness to me. I was struck by his frankness and the consistent manner in which he enforced the claims of mental suggestion, and no one could doubt his transparent sincerity. He now has a considerable number of followers in this country, as the therapeutic uses to which he puts hypnotism are better suited to our sentiments than anything which suggests a physiological experiment.

III. *Dr. A. Voisin's Treatment of Insanity.*

I also visited the wards of Dr. Auguste Voisin, who has charge of the insane patients at the Salpêtrière, and who, speaking generally, adopts the same methods of hypnotic suggestion as Professor Bernheim. Dr. Voisin has charge of about 200 female patients from the City of Paris, but the class of females I think deserves notice. They are those who have fallen into the hands of the police and have been found to be insane, and I think it highly probable that he has a large number of cases of moral insanity, of degraded women of strong passions and defective control, and cases of hysteria and hysterical excitement. These are cases that are more on the borderland of insanity than the cases of well-marked mental disease such as an ordinary asylum receives; therefore I think they are more suitable cases for hypnotism than the ordinary insane. As a matter of fact, Dr. Voisin told me that he admitted a good number of hysterical patients, the class most suitable for hypnotism. He also informs me that he tried hypnotism for an hour daily for twenty consecutive days on all his patients if it were possible, and that he found he was able to hypnotize about 10 per cent. of them. The method he uses is fixation of the eyes on a bright object, and the details of his plan are as follows:—The patient lies on a bed, and suspended from a pulley on the ceiling there is a silvered glass ball, about the size of an orange, such as people sometimes place on Christmas trees. This ball is lowered by the string till it rests about nine inches above the patient's eyes, and in such a position that the eyes look upwards, and the patient lies, looking fixedly at the ball till hypnosis comes on, or the hour expires. In those cases in which he hypnotizes personally he either makes use of ocular pressure, like Charcot, or of fascination, a method by which the patient and operator look fixedly at one another's eyes at a distance varying from less than six inches to a foot or two, the operator constantly repeating the word "sleep."

One of the first cases I saw was that of a young woman who suffered from recurrent attacks of great excitement at monthly intervals. These acute attacks were always accompanied by hallucinations of hearing—usually she heard her father's voice saying "They are killing me." She imagined that Dr. Voisin was her father's murderer, and she used at these periods to shout this after him and even threaten to assault him, though when she was well they were on very good terms. The treatment adopted in this case was commenced immediately before

these attacks. The assistant hypnotized her regularly every night, and left her asleep till Voisin's visit in the morning. Before waking her he would suggest to her to eat well, to be happy, and to be calm. This treatment was carried on for a week till the period was over, and it was found that by these means the excitement was warded off altogether. The first time I saw this woman was during a period when she was being treated in this manner. I saw Voisin waken her, and offer the suggestions previous to wakening her, and she seemed to be thoroughly hypnotized, for the difference between her waking and her sleeping condition was great. On a subsequent occasion I saw her during one of the intervals, when it was thought that she had got over the periodical attack. She was dressed and walking about the ward, but was melancholic, sullen, and quiet. She seemed hypochondriacal, and said she could not eat. Dr. Voisin proposed to hypnotize her, but she begged him not to do so, but if he did, that he would not send her to sleep for long. She was hypnotized by fascination, and when asleep allowed pins to be put into her arm. She was then told to take her food and to be happy and contented. After sleeping for a few minutes she was told I would waken her by touching her left hand, and she awoke the moment I did so. Her mental condition was now very markedly changed, for all the melancholy had gone, her expression was bright and happy, and she was quite cheerful in her speech.

I asked Dr. Voisin if this woman was hysterical, as she seemed so to me, but he informed me that she was not, and that she took true epileptic fits. He further informed me on my asking him, that it was possible to cure true epilepsy by means of hypnotism. On this point, however, Bernheim holds the opposite view, and for my own part I incline to the belief that the cases which recover must in reality have been hystero-epilepsy.

The next case I saw was one of hystero-epilepsy with grand attacks. She also had attacks of epilepsy, epilepsy larvé, and also petit mal, with outbursts of extreme violence and excitement. She was from all accounts one of those very troublesome cases in whom all self-control is lost, and who have no better feelings to appeal to. Some time before my visit she one day heard a voice, saying, "Break, break, break," so she mounted the wall of the airing court and damaged it to such an extent by pulling out the stones, that it cost over 500 francs to repair it. In addition to this, she smashed every window that was within reach. Voisin's treatment of this case was to have

her hypnotized regularly every night, and every morning at his visit he suggested her to eat, to be happy, to be quiet, and to be fond of the nurses, and after this he awakened her. By these means the patient had been for some time very easily managed, and it had become possible to live beside her in peace. As showing that she was a bad case and was not yet trusted, it may be mentioned that she occupied one of a series of detached small houses, each having two single rooms, for excited cases. Voisin thought that in course of time she might recover under this treatment, but in the meantime it seemed as if he were highly satisfied with the relief from excitement and violence. In both these cases, I believe, Dr. Voisin has tried keeping the patient asleep all day and night, excepting when wakened for food, and he found that the health remained good, and that the rest was beneficial to the mind.

The next case I saw was that of a very troublesome young woman. She had lost her mother when she was young, and had a very bad upbringing from neglect, and as a result she had early fallen into irregular ways of living. It was also possible she had suffered from specific disease, but of that there were no symptoms now. She suffered from melancholia, and had hallucinations of hearing. She was being treated by the prolonged bath, and she was hypnotized in it by Voisin by the method of fascination. When she was asleep he told her to be happy, never to lead a fast life again and to forget it, to be obedient to the nurses and do all they told her, not to hear the voices, as they were imaginary and did not really exist, and not to pay any attention to what they said. After about five minutes' sleep she was awakened, and though she showed no alteration in her appearance, it is quite possible the advice sank into her mind. Voisin informed me that this case was not one of hysteria.

The next case had formerly been a patient, and had come back to be treated for a painful arthritic knee joint. She was a good example of hysteria, and suffered from hemianæsthesia of the right side, which had previously been accompanied by aphasia. She was hypnotized, and Paquelin's cautery was painlessly applied to the knee. There were, of course, no mental symptoms to treat.

These are all the cases that I saw hypnotized during two visits on different weeks, and of these the first and the second cases were hypnotized on both occasions. I also saw a case of hypochondriacal melancholia lying on a bed staring at a glass ball, but whether she eventually became hypnotized or not, I do

not know. Every person of any experience who has used hypnotism has found that it is extremely difficult to hypnotize the insane, and painstaking enthusiasts like Voisin, and Forel of Zurich, after extraordinary endeavours, have only managed to hypnotize about 10 or 15 per cent. There are, however, cases which give the most brilliant results from hypnosis, and I certainly think the retention of hypnotism for these cases should not be discouraged. It will be found, I think, that these cases are the most sensible and reasonable class one finds in asylums, for the demented do not hypnotize readily, as they are too weak-minded to receive suggestions or to feel impressed. Voisin stated that he uses chloroform to calm the excited cases before hypnotizing them, and that some cases hypnotize more readily as they are getting excited than when they are well, a fact I have been able to confirm.

IV. *Dr. Luys' Treatment by Transference.*

I also visited the Clinique of Dr. J. Luys, at the Charité. Unfortunately Dr. Luys was indisposed at the time of my visit, but he placed me in the hands of M. Gérard Encausse, his *chef de clinique*, who was very obliging, and who put himself to a great deal of trouble for my sake.

Hypnotism is used in this clinique almost entirely for therapeutic purposes, but the methods adopted and the theories held vary considerably from the Nancy School. In fact, it may be said that it stands, in many respects, halfway between the Charcot and the Nancy School, for Dr. Luys admits all the phenomena of Charcot and makes use of hysterical subjects. But he and his followers hold in addition the most extravagant views on the subject of hypnotism, which are equally rejected by Charcot, Bernheim, and Voisin.

In the waiting-room of the clinique the following notice is placed for the benefit of out-patients:—

Hypno-therapeutic Treatment.

“The treatment of patients will be applied as follows:—

The *mirror* for 20 days, to be followed by rest for 10 days.

Electricity for 12 days, to be followed by rest for 12 days.

Transference for 6 days, to be followed by rest for 10 days.

NOTE.—The treatment will be altered if the doctor thinks it necessary.”

I do not think that this course of treatment is very strictly followed, for I believe that more stress is laid on the *transference* which is sometimes the first and only method tried, and which is sometimes combined with the *mirror*, though not simultaneously.

The treatment by the mirror is simply one of the numerous methods of inducing hypnosis, but it appears one of the neatest. The mirror consists of two pieces of wood, shaped like a Cupid's bow, with glass on each side of them, and trans-fixed through the middle by two rods, one within the other. By means of a clockwork mechanism these two rods rapidly and almost noiselessly revolve in opposite directions, with the two pieces of wood bearing the mirrors. The patient is seated with his back to the light on the level with the mirror, and from one to three feet away from it. He is supposed to look steadily at it, and the rapid flashing of the light soon wearies the eyes and induces a drowsy, heavy state, accompanied by a nervous calm, and, finally, sleep. By constant repetition sleep is more easily induced, and it is said by these means alone, and without *direct* suggestion, that cures have been made.

Of the treatment by electricity I have no remark to make, but much may be said on the treatment by transference. The theory at the bottom of transference is the belief that there are invisible and intangible emanations or fluids which can pass from one human being to another, and that some subjects, especially when they are hypnotized, absorb these emanations very readily. This theory of emanations is an old one, and was the popular explanation of mesmerism and animal magnetism, and it used to be thought that a mesmerist by means of the magnetic power of his hands could dispel pain by means of passes, and that he often became temporarily affected with his patient's ailment.

Dr. Luys makes practical use of this theory, and when a patient comes to him, he makes the patient sit down opposite to and clasping the hands of a hypnotized hysterical subject. It is to be noted that the patient is not hypnotized, and that the transference of the disease is effected during the patient's waking state.

There is, however, one other point in transference, and that is the use of the magnet. It is held by Luys that the magnet draws the current of these emanations along with it, and by means of a heavy magnetic rod he makes passes all over the patients, leading the current across the arms to the subject's body, each pass producing a convulsive movement of the

subject. After these magnetic passes have been conducted for a certain time it is found that the subject is suffering from the very same symptoms that the patient entered the hospital with, that the subject has also acquired the patient's entire personality, and that the patient often feels greatly relieved. The patient and subject continue holding hands for a long period of time to complete these currents, and, finally, when the current is broken the subject is told that she is to feel well, that the acquired disease has left her, and then she is awakened, as a general rule, without being the worse for her experience.

I saw three cases that were being treated by transference. One was a case of melancholia, who had been treated for three days, but she informed me that she did not feel any better. Another was a case of disseminated cerebro-spinal sclerosis, who had been treated for some time, and who felt distinctly better than before treatment. The third was a case of migraine, who had been treated for eight days, and who now felt slightly better. During the process of transfer in this case the subject was asked the colour of her hair and of her eyes, and she described those of the patient instead of her own—demonstrating the altered personality. After waking, the subject complained of headache, and shortly after commenced to retch, so that it was necessary to hypnotize her again and suggest that the acquired migraine had gone.

When I made my visit there were three subjects who, I believe, had formerly been hysterical patients, and who attend regularly to be hypnotized for purposes of transference. They are accordingly well versed in the ways of the place, know all that is going on, hear all that is said to those who come to study the phenomena of hypnotism, and have become familiar with Luys' views on the subject, and know what is expected of them. It is even said that they read the "*Revue d'hypnologie*," which recounts the wonderful recoveries in which they play a great part. They also mix freely with the out-patients before they are treated, and seemed to have every opportunity of knowing their symptoms. They are also paid for their services. Under these circumstances, is the assertion of Bernheim that these phenomena of transference are simply the result of auto-suggestion at all far-fetched, seeing that they can all be produced by suggestion? This, of course, accounts, according to one view, for the symptoms observed in the subject; but how are the patients relieved of their symptoms? According to Bernheim, they offer examples of suggestion in

the waking condition, such as the two cases I saw at Nancy. The whole proceedings, I must confess, are carried on in a way that must greatly impress the patients, and M. Encausse's manner is so enthusiastic and so full of assurance that many would be unable to resist his suggestions.

M. Encausse also showed me another mode of transference more wonderful than that which has been described. Dr. Luys has invented a magnetic crown, shaped something like a horse-shoe, and I was asked to place this on the head of a patient in a certain bed. I left it there for five minutes, and then placed it on the head of a subject who had been hypnotized, and who had not been told of what I had done. The patient on whose head I placed the crown suffered from hemiplegia, with contractures, and the subject at once assumed the symptoms and the personality of the patient. I asked M. Encausse if hemiplegia had not a distinct pathology, and whether this disease was conveyed in the magnetic crown? He replied that he could not give an explanation, but that the facts were as I saw them. This experiment was not performed with anything like test conditions, for it could hardly be expected that this could be done for a visitor at a moment's notice, and the sources of fallacy were innumerable, for the patient had been months in the ward, and the subject knew him and his symptoms well. To show how carefully these experiments must be done, I may state that the subject might have recognized the patient by the sense of smell, as probably a dog could have done, for it has been demonstrated that a hypnotic patient, who was completely blindfolded, picked up from the floor a letter torn to bits, in the most unerring manner, by the sense of smell alone. In another case the subject recognized the owner of a glove in a crowded room by the sense of smell.

Charcot and his pupils, including M. Féré, believe in the influence of the magnet in hysteria, where the nervous system is hyper-sensitive. They believe that in a hypnotized female it is able to transfer from one side to the other contractures and anæsthesia. Bernheim denies these statements, and asserts that the transference is suggested, and demonstrated this to me by means of a penholder, and also of nothing at all. Bernheim's demonstration, however, only proves that it is possible to do this by suggestion, and does not necessarily disprove Charcot's observations. M. Féré also showed me experimentally, by means of Mosso's plethysmograph, that the volume of blood in the hand and forearm of a hypnotized hys-

terical female was decidedly affected by the magnet in such a way that no conscious effort could simulate.* But these observations of Charcot and his pupils do not at all support Dr. Luys' practice.

Dr. Luys also believes that the two poles of a magnetic rod affect the hypnotized subject's emotional condition in a marked and contrary manner. When the north pole was presented to a subject she at once assumed a delighted appearance and fondled the extremity, gazing at what M. Encausse told me

FIG. 6.—Plethysmographic tracing of changes in the volume of the forearm and hand, following the application of a magnet—one-tenth natural size; read from left to right. (From Féré).

was a beautiful yellow flame, with sparks coming from it. The south pole, on the other hand, caused a feeling of aversion, and she turned away from it with something of horror in her countenance. It has also been stated that persons only act thus when it has been suggested to them, and that under test condition these results have not been reproduced.

M. Encausse also showed me the effect of a curious old magical figure, consisting of a five-rayed star, with some other symbols, on his subjects. When he showed them it with the apex upwards, it produced the same feelings of pleasure as the north pole of the magnet; but, when the base was uppermost, it produced marked expressions of fright and horror. This was what M. Encausse called white magic and black magic, and how it acted he could not tell, but he evidently believed it had some wonderful occult powers.

I must refer to two other points in connection with this clinique, which, however, I did not see for myself. The physicians do not diagnose some of their cases by the ordinary physical methods, but ask the subject when she is hypnotized to describe the case. This closely resembles the practice of clairvoyance as professed by the spiritualists, and is a tacit admission that a hypnotized hysterical female, without much

* "Sensation et Mouvement," par Ch. Féré, p. 114.

education, possesses an occult gift of diagnosis superior to that of a skilled physician.

The second point is, the belief in the effect of drugs in sealed tubes, when applied to the skin, or even brought near a hypnotized patient. The statements of Dr. Luys on this point were investigated by a commission appointed by the Academy of Medicine and were finally rejected. However, Dr. Luys still believes that if a sealed tube of morphia be placed near certain parts of a hypnotized person it may produce a pleasant and a drowsy feeling, and that strychnia may produce convulsions. Most other observers, however, record their conviction that Dr. Luys has unconsciously offered a suggestion by a whispered word or a gesture to a spectator or in some other way. For my part, also, I should feel inclined to ask why should water in a sealed tube produce symptoms of hydrophobia, a definite disease produced by a specific virus? And why should the exhibition of valerian produce "feline movements and crawling on all fours?"* Does the internal administration of valerian turn one into a cat or produce cat-like conduct? To me, these two facts are a convincing proof

FIG. 7.—Effect produced by valerian acting "from a distance." (From Foveau de Courmelles.)

that these drugs, instead of exerting their physiological actions, have only suggested ideas of what was closely associated with them in our own minds, and the phenomena are those of mental association and not of pharmacological action. It is right for me

* "Hypnotism," by Dr. Foveau de Courmelles, p. 52.

to mention here that not a single person I met had the slightest doubts of Dr. Luys' thorough honesty and conviction, and all spoke of him with great personal regard. But at the same time they were all satisfied that he must have made errors when conducting his experiments, and that his subjects were, consciously or unconsciously, playing him false. M. Encausse is also undoubtedly a man of brilliant talents, but with a personal equation that must be considered in his observations. Some of his scientific ideas are very unorthodox at the present day, as, for example, his belief—as I was informed—that he could produce living organisms by electrolysing dextrine, and the fact that he held non-materialistic ideas of psychology, and believed in the phenomena of spiritualism.

V. *Conclusion.*

I shall now give a brief summary of the conclusions I arrived at during my visit, after having seen so much hypnotism and after having heard so many conflicting theories about it.

In the first place how are the apparent contradictions between the Charcot and the Nancy Schools to be reconciled? Charcot has stated that true hypnotism is accompanied by certain remarkable physical phenomena, which can be accurately investigated, and which occur independently of suggestion; in fact, in some cases conscious effort cannot reproduce them. Bernheim on the other hand states that his patients are truly hypnotized, and yet none of these phenomena are obtained which Charcot lays stress on, without suggestion. The cause of this difference lies not in the hypnotism, but in the patients who are hypnotized. Charcot selects cases suffering from profound or grand hysteria and cases of hysterio-epilepsy, and even of these he finds that all do not demonstrate the grand hypnotisme. The proportion of these to the Paris population is probably about 1 to 100,000, and I am within the mark when I say that not a score of such patients have passed through the Salpêtrière during the last ten years. When hypnosis is induced in these patients they manifest the various physical phenomena according to the classic description of Charcot, though improvement takes place with practice and repetition. But one may well ask with Tamburini,* are these phenomena not those of acute hysteria? Charcot pointed out to me the close connection between hysteria and hypnotism, and demonstrated the

* "Alienist and Neurologist," July, 1891, Vol. xii.

immediate induction of the cataleptic state by a sudden loud noise—a flash of light would have done the same. Cases have also been observed which demonstrated one or other of the physical phenomena in the waking condition, without any hypnotism. Professor Tamburini therefore advocates the view that hypnotism induces such an altered nervous state in these cases of grave hysteria that latent pathological phenomena proper to the disease are rendered manifest, which may however occur spontaneously in other cases without hypnotism. It is not for me to say if this be so, but I believe that the phenomena of hypnotism vary according to the subject operated on. I believe that if one selects a healthy person and hypnotizes him, that as a general rule he will fall into one of the slighter phases of the lesser hypnotism of Nancy. Then it is probable that in different types of people, according to some subtle peculiarity in their nervous organizations as yet not accurately known, hypnosis becomes deeper and deeper, and more marked phenomena accompany it, and of these various degrees Bernheim himself describes at least nine. Finally, in the few cases of grave hysteria and hysterio-epilepsy we reach a climax in the complexity and perfection of the phenomena accompanying the hypnotic state. By looking at the phenomena of hypnotism in this light, the major difficulties between the two schools vanish, and those that remain are due to misrepresentation and ignorance of the exact views of one another. I do not entertain for a moment the innuendos of the Charcot School that Bernheim's patients are not hypnotized, because they do not manifest marked physical phenomena. I believe that the lesser form of hypnotism, as it occurs in sane people, is a purely psychical phenomenon, and it is none the less interesting and important on that account. It may be more difficult, if not impossible, to give such convincing proof as Charcot does of the presence of hypnosis in these cases, but no open-minded person can fail to be convinced of the reality of an induced psychical state, by Bernheim's success in relieving pain.

Nor do I agree on the other hand with Bernheim that all the so-called physical or somatic phenomena of hypnotism which Charcot describes, are the result of suggestion, and that they are never obtained spontaneously. Charcot distinctly states that he does not expect them to occur excepting in a few suffering from grave hysteria, and those examples which Bernheim gave me of these physical phenomena produced by suggestion were not convincing. His suggested

catalepsy, for instance, in those cases I saw, does not stand the scientific tests of the Charcot School, and is more accurately described as a cataleptoid or cataleptoid state; and, regarding the influence of the magnet, his reproduction of some of the phenomena by suggestion cannot be held to negative the occurrence of the same and other phenomena by the magnet. It is quite natural for Bernheim, who has studied suggestion so thoroughly, and who has explained so much by it, to have a mental bias towards this factor in explaining all phenomena.

During my visit I made inquiries, and found that neither Charcot, Féré, Bernheim, nor Voisin believed in any occult phenomena in connection with hypnotism, such as thought transference or clairvoyance. And of course it is unnecessary to say that hypnosis is not induced by means of any magnetic power or other emanation possessed by the operator, but is mainly a state induced subjectively by the person who becomes hypnotized. The fact that glass balls and rotating mirrors do this is sufficient proof of the absence of magnetism, and, therefore, the intense looks and the extraordinary gestures of the mesmerists are not essential to hypnotism, and are only of assistance in so far as they impress the subject. And in respect to the treatment by transference at Dr. Luys' clinique at the Charité, and the various other supernatural phenomena there, I feel inclined to accept without much hesitation Bernheim's explanation of unconscious suggestion as being the correct one.

Finally, as to the uses of hypnotism, there can be no possible doubt that in experimental psychology it will prove of the very utmost value, and it has already added greatly to our knowledge. Binet and Féré, in their work, regret that the English psychological school had not studied the phenomena of hypnosis to confirm many of their views, and Dr. Liébeault told me he hoped for many discoveries when the Scottish metaphysical mind investigated and analyzed these phenomena. As to its therapeutic uses, there is no doubt that it is a most successful agent for the relief of pain and feelings of uneasiness, and for nervous affections of many kinds, and in places where it has a fair reputation a large majority of the ordinary population may be influenced by a good operator. As to its special use in insanity, I think that it will be of distinct service in a few cases, but my impression was that even in Voisin's wards, receiving many cases of hysteria, its beneficial use was restricted.*

* Since writing the above, I have made a trial of hypnotism and hypnotic suggestion among the insane, and I have found my belief confirmed that it

Regarding injury to the individual, I do not think there is a single case recorded of any serious after-effects when it has been used by medical men for therapeutic purposes. As, however, there is the wider question, whether belief in the mysterious powers of hypnotism may produce superstitions among the ignorant, and epidemics of absurd ideas, it becomes the duty of the physician practising hypnotism to make its true nature known.

Is Katatonia a Special Form of Mental Disorder? By M. J. NOLAN, L.R.C.P., L.R.C.S.I., M.P.C., Fellow Roy. Acad. of Med.; Senior Assistant Medical Officer, Richmond (Dublin District) Asylum.*

As katatonia, "a mental disorder," writes Spitzka,† "well marked but not generally recognized," has hitherto received but scant notice in this country, the following observations, based on the study of a group of cases which well illustrated its alleged characteristics, may not be devoid of interest.

It is now some eighteen years since Kahlbaum,‡ of Grolitz, drew the attention of alienists for the first time to a group of clinical symptoms said to be previously unnoticed, which he proposed to elevate to the importance of a distinct class of mental disease under the name of Katatonia.

The newly-described symptomatology quickly arrested observation in Europe and America, with the result that while on the one hand some cultured and discriminating physicians endorsed the necessity for Kahlbaum's plea, to which they gave their full support, on the other not a few, and those not the least distinguished, were satisfied to recognize the various symptoms as familiar, but declined to admit that they constituted the facies of a distinct pathological entity. As a consequence katatonic phenomena were relegated to a very subordinate and obscure position in the wide domain of insanity; and thus it is that to-day we find katatonia annexed to mania, melancholia, dementia, stupor, or hysteria, treated, so to speak, as a tributary dependency, whose individuality is ignored, but whose resources are largely taxed when it is necessary to strengthen the claims

would not produce extraordinary recoveries; but I have also discovered that it is a useful minor therapeutic agent in many ways I had not thought of.

* Paper read at the Quarterly Meeting of the Medico-Psychological Association, held at the Royal College of Physicians, Dublin, May 26th, 1892.

† "Manual of Insanity," p. 149.

‡ "Die Katatonie," Berlin, 1874.