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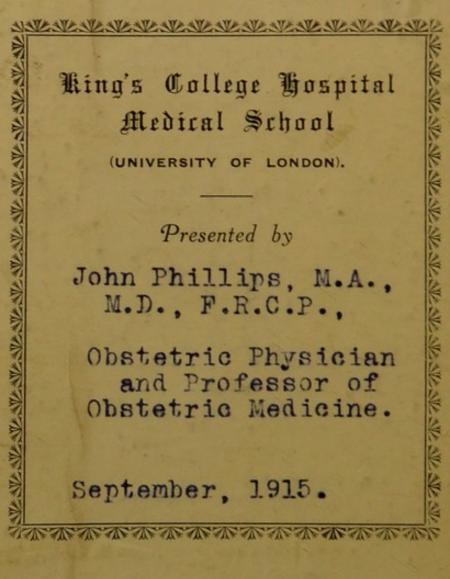
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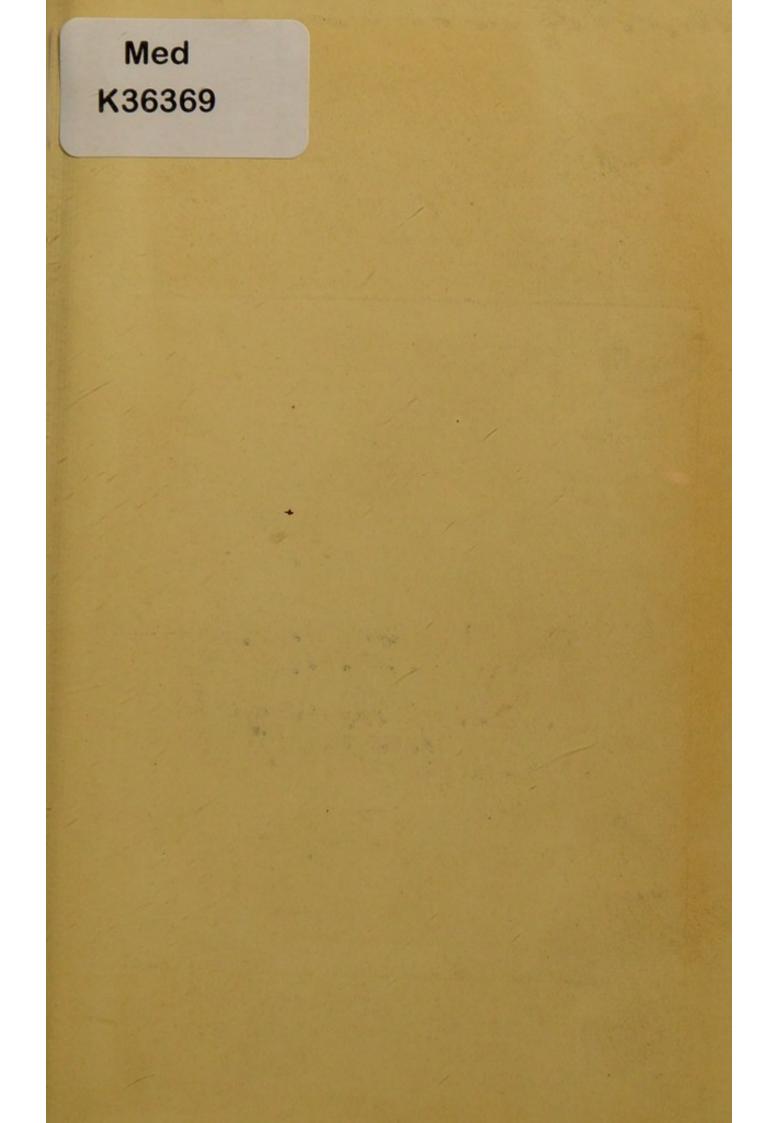
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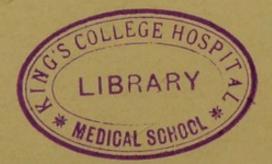
HYPNOTISM AND TREATMENT BY SUGGESTION

BY

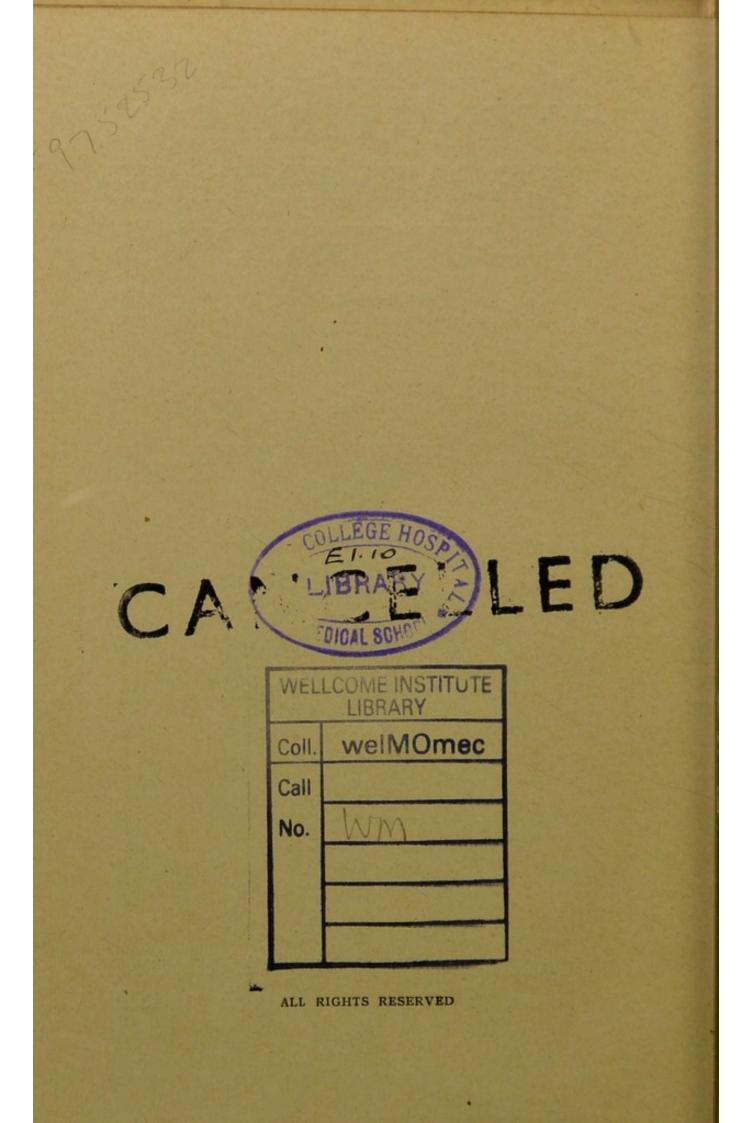
J. MILNE BRAMWELL

M.B., C.M.

Author of "Hypnotism: its History, Practice and Theory," etc.



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PREFACE

It is not easy to do justice to such a wide subject as Hypnotism and Treatment by Suggestion in the limited space at my disposal, and my difficulties are increased by the conflicting opinions that still exist as to the real nature of the so-called hypnotic state. I have attempted, however, to deal fully and clearly with all practical points, especially the methods of employing suggestion, the causes which, influence suggestibility, and the class of cases suitable for this form of treatment. My aim throughout has been to give such practical information as might be really valuable to those who wish to employ "suggestion" in their practice.

Braid was the first to employ the term "hypnotism," and did so at the commencement of his researches, when he believed the condition to be one of artificial sleep. Later, he proposed to abolish his entire terminology, as he recognised that the patients always retained consciousness, and were often obviously wide awake.

Most of us who treat by "suggestion" have long recognised that the condition differs widely from natural sleep, and that, as Bernheim has pointed out, "every stage of the so-called hypnotic condition is a conscious one." Despite this, he and many others still employ the words

PREFACE

"hypnotism," "hypnotic," "hypnosis," etc., and it is impossible for me to avoid using the same terms. I have, however, endeavoured to make it quite clear in this little book that by those terms I only mean there has been induced by "suggestion" a condition of increased suggestibility, and that the various phenomena—surgical, medical, and experimental — have resulted from the suggestions made to the patient while he was in this condition of increased suggestibility.

Hypnotic theories are too numerous and conflicting to be dealt with here in detail, but I have given an outline sketch of the most important of them. This side of the subject is treated more fully in the second edition of my larger and earlier work, "Hypnotism : its History, Practice and Theory," where will also be found an extensive list of references to British and foreign hypnotic literature, which would, I think, be useful to students wishing to extend their knowledge of the subject.

J. M. B.

33, WIMPOLE STREET, W. November, 1909.

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HYPNOTISM is generally regarded as of French extraction, and few know that England was its birthplace. To understand its origin, we must go back to the later mesmerists and to Braid. Further, ignorance of what was done by the rival schools of mesmerism and hypnotism was answerable for the reproduction of mesmeric errors at the Salpêtrière, and for the claims of the Nancy school to be the discoverers of what had been demonstrated by Braid.

JOHN ELLIOTSON

In 1837, John Elliotson, the foremost physician of his day, saw some mesmeric experiments, and began to mesmerise patients at University College Hospital. His students, as well as those of other hospitals, became interested and attended in large numbers, but his colleagues, while boasting of their refusal to witness his demonstrations, disgracefully persecuted him. The Dean advised him to desist, urging that the interests of the school ought to be considered rather than those of science and humanity, and that the risk of losing public favour was of

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more importance than the truth of the facts alleged, or their value in the treatment of disease. Elliotson replied "that the institution was established for the discovery and dissemination of truth; all other considerations were secondary, and we should lead the public, not the public us. The sole question was whether the matter were the truth or not."

In 1838, the Council of University College passed the following resolution: "That the Hospital Committee be instructed to take such steps as they shall deem most advisable to prevent the practice of mesmerism within the hospital." Elliotson, on being ordered to cease mesmerising his patients, immediately resigned his appointments, and never afterwards entered College or Hospital.

In 1843, Elliotson and his sympathisers started the Zoist, a journal for the diffusion of information connected with cerebral physiology and mesmerism. It appeared quarterly from April, 1843, until it was discontinued on December 31st, 1855. Its writers then claimed that its object was fulfilled, as their views had been made public for thirteen years. As the result of its influence, Mesmeric Infirmaries and Institutions were opened in London, Edinburgh, Dublin, and elsewhere. At one of these, at Exeter, Mr. Parker, surgeon, mesmerised 1,200 persons and performed 200 painless surgical operations.

Elliotson was a constant writer in the Zoist, and contributed many medical and surgical cases observed by himself and others. These comprised amputations of the thigh, leg, arm, breast, etc., which had been performed painlessly during mesmeric trance in England and Scotland, as well as on the Continent and in America.

Cure or improvement was alleged to have followed mesmeric treatment in insanity, epilepsy, hystero-epilepsy, hysteria, stammering, neuralgia, asthma, torticollis, headache, functional affections of the heart, rheumatism and other diseases. Elliotson asserted that mesmerism was

ELLIOTSON AND ESDAILE

especially useful in hysteria and other functional nervous disorders. These diseases, he said, were misunderstood and treated in a worse than useless manner by blistering, bleeding and salivation. Marriage was suggested as a remedy for hysterical women, with disastrous results, on the supposition that the disease was sexual. It was not, however, necessarily connected with the uterus, nor confined to the female sex, but occurred in boys and in men. Mesmerism, not marriage, was the appropriate treatment for hysteria.

Elliotson found children easy to mesmerise, and cured or relieved many of their diseases; at the same time he insisted upon the injury done by ordinary medical treatment. Thus, children suffering from nervous diseases were made worse by being needlessly tortured with blisters and other external irritants. Yet the little creatures were far more sensitive than adults, and felt more pain from an equal cause. When he thought of medical men's cruelty to innocent little children, he wished their complaints had been left to nature. Despite abuse and persecution, Elliotson continued to employ mesmerism in his practice up to his death in 1868. He did not, however, consider it universally applicable. He only suggested it in cases which he thought specially suitable, and where, in addition, there existed no prejudice regarding it.

JAMES ESDAILE

The most important mesmeric operations were those performed by Esdaile in India, and narrated in the Zoist from time to time. James Esdaile was born on February 6th, 1808; he graduated at Edinburgh in 1830 and obtained an appointment in the East India Company. On April 4th, 1845, when in charge of the native hospital at Hoogly, he made his first mesmeric experiment; his subject being a Hindoo convict about to undergo a painful operation. At that time he knew nothing of mesmerism, except what he had read of Elliotson's doings, but he tried

to mesmerise this patient, in order to render him insensible to pain. The man fell into a deep trance and became profoundly analgesic. Encouraged by this, Esdaile continued his experiments, and soon reported 75 painless mesmeric operations to his Medical Board. His letter was not acknowledged. At the end of the year, when his operations amounted to over a hundred, he placed the results before the Government. The Deputy-Governor of Bengal, Sir Herbert Maddock, appointed a "Committee of Investigation," mainly composed of medical men. Their report was extremely favourable, and in November, 1846, the Government placed Esdaile in charge of a hospital in Calcutta, in order that he might continue his mesmeric operations on a larger scale. The following official visitors were appointed : R. Thompson, M.D.; D. Stewart, M.D.; J. Jackson, F.R.C.S.; F. Mouat, M.D.; and R. O'Shaughnessy, F.R.C.S.

Esdaile was as successful at Calcutta as he had been at Hoogly, and in December, 1847, the official visitors reported that complete insensibility to pain had been obtained by mesmerism in the most severe operations, and that its influence reduced shock. Esdaile had only been appointed to the hospital for a year, but before this period expired a petition was sent to the Governor-General, signed by over three hundred native gentlemen of Calcutta, praying for the continuance of the Mesmeric Hospital, on the ground that they had studied the reports, witnessed the operations and their results, and satisfied themselves of their value.

Despite the favourable official report and petition, the hospital was closed. A second one, supported by voluntary subscriptions drawn from native sources, was opened on September 1st, 1848, and Esdaile placed in charge. It was closed in six months, because the Deputy-Governor had appointed Esdaile Surgeon to the Sarkea's Lane Hospital and Dispensary, for the express purpose of employing mesmerism for the induction of anæsthesia.

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Esdaile performed thousands of painless minor operations and about 300 capital ones. Amongst the latter were 19 amputations and one lithotomy; but the greater number were for the removal of the enormous scrotal tumours so common in India. His account of his work, and of the flocking of the natives to be operated on under the new-and at that time the only-anæsthetic, forms one of the most fascinating pages in the history of surgery. The removal of the larger scrotal tumours was considered so dangerous an operation that few surgeons attempted it. Dr. Goodeve (Trans. Medical and Physical Society of Calcutta, vol. vii.) put the mortality at 50 %; but, although many of Esdaile's cases were particularly formidable ones, upon which other surgeons had refused to operate, his mortality in 161 consecutive cases was only 5 %. Further, none of the patients died immediately after operation, but subsequently from fever, cholera, or like causes.

The following commentary on Esdaile's work appeared in Dr. Webb's introductory lecture at the Medical Hospital of Calcutta: "In the Mesmeric Hospital in this city the most dreadful operations are daily performed without pain; and I regard this as the greatest surgical triumph of our time. I cannot recall without astonishment the extirpation of a cancerous eye, while the man looked at me unflinchingly with the other one. In another case, the patient looked dreamily on with half-closed eyes the whole time, even while I examined the malignant tumour I had removed, and then, having satisfied myself, concluded the operation."

Until Esdaile left India in 1851, he devoted himself entirely to mesmeric work. This brought him no profit, for it involved no increase in his official salary, and he also sacrificed all private practice and other chances of making money.

When Esdaile returned to Scotland and settled in Perth, in December, 1852, he informed Elliotson that the inhabit-

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ants of the Far North were as susceptible to mesmerism as those of the Farthest East. Dr. Fraser Thompson, Surgeon to the Perth Infirmary, became a convert and performed painless mesmeric operations; his colleagues, however, called a meeting of the directors and threatened to resign if the practice of mesmerism were continued in the hospital.

JAMES BRAID

James Braid was born in Fifeshire about 1795, educated at Edinburgh, and, after practising in Scotland, settled at Manchester, where he gained high reputation as a surgeon. In November, 1841, he was present at a mesmeric séance. At that time the phenomena were believed to be due either to a mysterious force, or to self-deception and trickery. Braid held the latter theory and at first saw no reason to alter his views. At the next séance he thought genuine phenomena had been produced, and tried to discover their cause. After making a series of experiments, he asserted that the phenomena were purely subjective, instead of being due to a mysterious force or fluid. From that time, until his death in 1860, Braid employed "suggestion" with success in his medical and surgical practice. In 1843 he published "Neuryphology, or the Rationale of Nervous Sleep," of which 800 copies were sold in a few months. This was followed by other works on the same subject; of these I have traced forty-one, but all have long been out of print in this country.

In 1859, Dr. Azam, of Bordeaux, became acquainted with Braid's work and began to investigate the subject; an account of his experiments, with much reference to Braid, appeared in the *Archives de Médecine* in 1860. About the same time Broca, who had obtained marvellous results with Braid's methods, read a paper on hypnotism before the Académie des Sciences, which attracted much attention. From that date the subject was never lost sight of in France, but it was not until forty years after its original publication that "Neuryphology" was translated by Dr. Jules Simon.

Elliotson and Esdaile regarded Braid as their opponent, but he did not really destroy mesmerism root and branch, and substitute hypnotism as something totally different in its place. Hence, amongst hypnotic phenomena are to be found those mesmeric ones which have stood the test of investigation and are now explained more scientifically.

At Braid's death hypnotic work practically ceased in England, despite the attention drawn to it by Professors Carpenter and John Hughes Bennett, but the torch that Braid had lighted passed into France, where Liébeault originated the hypnotic movement now so widely spread.

A. A. LIÉBEAULT AND BERNHEIM

Dr. A. A. Liébeault, born in 1823, was first attracted to mesmerism in his student days, but did not renew his researches till 1860. He then found he could induce by suggestion a condition which he regarded as analogous to sleep and termed *sommeil provoqué*. To find subjects for experiment he took advantage of the parsimony of the French peasant. His patients had confidence in him, but were accustomed to being treated in the ordinary way. He said to them : "If you want drugs I will give them, but you will have to pay me; if you will allow me to hypnotise you, I will do it for nothing."

He soon had so many patients that he was unable to find time for rest or study. In 1864 he abandoned general practice, settled at Nancy, and gave himself up to hypnotic work. Two years later he published his book, "Du Sommeil et des États analogues," but one copy only was sold. For twenty years he devoted himself to the poor, and refused to accept a fee, lest he should be regarded as making money in unrecognised ways. His theories only found sceptics, his methods were rejected without examination, and he was laughed at and despised by all. His colleagues regarded him as a madman, the poor as their Providence, calling him "the good father Liébeault."

In 1882, a patient, who had suffered from sciatica for six years, entered Professor Bernheim's wards; he was discharged unrelieved six months later, consulted Liébeault and quickly recovered. Hearing this, Bernheim visited Liébeault's clinic: at first he was sceptical, but soon his interest was excited; he multiplied his visits and became an eager pupil.

In 1882, Bernheim began to hypnotise his hospital patients, his work being carefully watched from the physiological side by Professor Beaunis, from the legal side by Professor Liégeois. In a few years 10,000 cases were recorded, hypnosis being obtained in 85 %. In 1884, Bernheim published "De la Suggestion," and in June, 1886, "La Thérapeutique suggestive." From that date Liébeault's name became known, his book was bought, and doctors flocked from all countries to study the new therapeutic method; most were convinced of the genuine nature of hypnotism and began to study and practise it.

OTHER CONTINENTAL WORKERS

In 1878, while Liébeault's work was ignored, Charcot and Charles Richet asserted that the phenomena of hypnotism were genuine. Charcot's researches attracted attention in England, but his observations were not confirmed, and, if his experiments were quoted, it was only to discredit hypnotism.

In Germany, about 1880, Heidenhain interested himself in hypnotism, but his influence was not lasting, and it is mainly owing to Forel that treatment by suggestion is widely spread there. Hypnotism now plays an important part in the medical practice of most European countries; it is taught in university class-rooms, and has occupied a prominent place at medical congresses, especially at the International Congresses of Experimental Psychology.

It possesses a rich literature. Max Dessoir, in his "Bibliography of Modern Hypnotism," published in 1888, and augmented by an Appendix in 1890, cites 1,182 works by 774 authors, and since then the number has largely increased. Several journals, notably the Revue de l'Hypnotisme, occupy themselves almost exclusively with the subject, while others, such as the Annales de Psychiatrie, contain from time to time important contributions to its psychological side. The Proceedings of the Society for Physical Research contain valuable articles on hypnotism by Edmund Gurney and Frederic W. H. Myers. The views of the former were markedly in advance of those held at that time, while Myers' attempt to explain the phenomena by the intelligent and voluntary action of a secondary consciousness still remains the most important contribution to the theoretical side of the subject. At the Annual Meeting of the British Medical Association, held in Edinburgh, July, 1898, Myers, by special request, explained his theories to the Section of Psychology.

Until quite recent times, few medical men in England have employed hypnotism in their practice. On November 8th, 1906, however, the Medical Society for the Study of Suggestive Therapeutics was formed; its members now number seventy-six, and several Parts of its *Transactions* have been published. The main objects of its founders are—(1) to facilitate the study of "suggestion" by medical practitioners; (2) to bring the value of "suggestion" as a therapeutic agent more prominently before the profession. The membership of the society is confined to registered medical practitioners. Further, none are eligible for election who are connected in any way with any non-medical society which has for its object the treatment of disease by unqualified persons, whether by "suggestion" or by other methods.

My introduction to mesmerism was due to James Esdaile. In my native town, Perth, many of his experi-

ments were seen and afterwards reproduced by my father the late Dr. J. P. Bramwell; these, which I witnessed as a boy, deeply impressed me. At Edinburgh my attention was drawn to hypnotism by Professor John Hughe Bennett: an account of Braid's work formed part of his course of physiology, and he asserted that some day hypnotism would revolutionise the practice of medicine.

In May, 1889, a case (p. 45) occurred in my own practice in which hypnotic treatment was apparently indicated. Although I told my patient how little I knew of the subject, I had no difficulty in influencing him. My success encouraged me to persevere—at first cautiously amongst personal friends, then boldly with my patients in general. At that time I was only acquainted with Braid's "Neurypnology," and it was not until after successful work, conducted on his lines, that I visited Continental hypnotic clinics.

On March 28th, 1890, I gave a demonstration of hypnotic anæsthesia to a large gathering of medical men at Leeds. This was reported in the *British Medical Journal* and the *Lancet*, and so many patients were sent to me that I gave up general practice and came to London in November, 1892, and, since then, have devoted myself to treatment by suggestion.

CHAPTER II

SURGICAL CASES

Esdaile's Operations under Hypnosis—Removal of Tumours—Amputations—The Author's Cases—The Demonstration at Leeds in 1890—Dr. Fairley's Experience of Hypnosis as a Patient

THE following is Esdaile's description of two typical operations :--

No. 1. Removal of a large scrotal tumour.-"S., aged 27, came to the Native Hospital with an immense scrotal tumour as heavy as the remainder of his body. He was mesmerised for the first time on October 10th, 1846, then on the 11th and 13th, on which latter day he was ready for the operation, which was performed on the 14th. The tumour was tied up in a sheet to which a rope was attached, and passed through a pulley in the rafter. The neck was dissected out and the mattress then ' hauled down to the end of the bed; the patient's legs were held asunder, and the pulley put in motion to support the tumour. It was transfixed with the longest two-edged knife, which was found to be too short, as I had to dig the haft into the mass to make the point appear below it, and it was removed by two semicircular incisions right and left. The flow of venous blood was prodigious, but soon moderated under pressure of the hand; the vessels being picked up as fast as possible. During the whole operation, I was not sensible of a quiver of his flesh. The tumour weighed 103 pounds. The patient made a good recovery."

No. 2. Removal of an antral tumour.—"Two years previously the patient, a peasant, aged 40, began

to suffer from a tumour in the antrum, which had pushed up the orbit of the eye, filled up the nose, passed into the throat and caused an enlargement of the glands of the neck."

An assistant having failed to mesmerise this patient in a fortnight, Esdaile took him in hand, and thus describes the result :-- "In half an hour he was cataleptic, and a quarter of an hour later I performed one of the most severe and protracted operations in surgery; the man was totally unconscious. I put a long knife in at the corner of his mouth and brought the point out over the cheek-bone, dividing the parts between; from this, I pushed it through the skin at the inner corner of the eve and dissected the cheek-bone to the nose. The pressure of the tumour had caused absorption of the anterior wall of the antrum, and, on pressing my fingers between it and the bone, it burst, and a shocking gush of blood and matter followed. The tumour extended as far as my fingers could reach under the orbit and the cheek-bone, and passed into the gullet-having destroyed the bones and partition of the nose. No one touched the man, and I turned his head in any position I desired, where it remained until I wished to move it again; when the blood accumulated, I bent his head forward and it ran from his mouth as if from a spout. The man never moved, nor showed any signs of life except an occasional indistinct moan; but when I threw back his head, and passed my fingers into his throat to detach the mass in that direction, the stream of blood was directed into his windpipe and some instinctive effort became necessary for existence; he therefore coughed and leaned forward to get rid of the blood, and I supposed that he then awoke. The operation was finished and he was laid on the floor to have his face sewn up, and, while this was being done, he for the first time opened his eyes."

The patient afterwards informed Esdaile that he did

not know he had coughed and was quite unconscious up to the termination of the operation. The dressings were removed three days afterwards, when it was found that the wounds in the face had healed by first intention. The recovery was satisfactory.

The following two cases were reported by "visitors" to the hospital :

No. 3. Amputation of the leg.-"The patient was sinking : she had been attacked with fever, and Dr. Esdaile, though he was not satisfied that she had been mesmerised sufficiently, determined to operate at once, as further delay endangered her life. The leg was taken off a little below the knee. . . . The thigh and knee from which the leg had been taken were perfectly motionless, and the only evidence of life was her respiration. She was not held or tied down in any way, and, during the whole operation, not the least movement or change in her limbs, body or countenance took place. Dr. Esdaile left her to wake naturally, which she did in about a quarter of an hour. She then told us that she had had a good and undisturbed sleep, without dreams or pain, and that she was ready to have her leg amputated. Upon receiving ocular demonstration that the operation had been performed, her countenance expressed surprise and pleasure, and, as if doubtful of the fact, we observed her pass her hand over the stump, apparently to test the reality of what she saw. Shortly afterwards, when we left the hospital, she was composedly waving a punkah over her face."

No. 4. "The patient had not been previously mesmerised, and Dr. Esdaile was doubtful whether this could be done deeply enough for operative purposes. He instructed a native assistant to commence the process and the patient quickly passed into a state of deep coma. Esdaile then amputated the leg six inches above the knee; not a muscle moved, the pulse was steady and regular, there was no perspiration on the forehead, no paleness of

the countenance ; in fact, the patient was as motionless as a corpse. Shortly after the operation, he awoke in the most natural manner, stretching out his arms, yawning and rubbing his eyes. He said, in reply to questions, that he had had a good sleep and felt all the better for it. He was intensely surprised when told that the operation was over ; and showed his gratitude in the usual native manner by placing his hands upon his breast and murmuring blessings on the doctor."

Among many other interesting cases cited by Esdaile there was a case of compound fracture of the leg, in which a portion of bone was sawn off and the fracture set during the mesmeric trance, with several cases of strangulated hernia, which had resisted all attempts at reduction : during mesmeric sleep there was complete relaxation of the abdominal muscles; and in every instance the hernia was easily reduced. Esdaile also recorded cases of stricture of the urethra, with retention of urine, successfully treated during mesmeric trance; as well as a case of labour, which took place painlessly during the same condition.

Personal cases.—Shortly after commencing hypnotic work, I often found I could induce anæsthesia by suggestion, and performed many minor surgical operations during hypnosis. Sometimes, however, while I hypnotised the patients, the operations were performed by others. The following is an extract from the account of one series of these operations, published by the late Mr. Arthur Turner, of Leeds, in the *Journal of the British Dental Association* for March 15th, 1890 :—

"I had a large choice of patients and selected those which I considered would afford a severe trial of this method. One upper molar, which another dentist had on three occasions failed to remove, I extracted without difficulty, and with no signs of pain from the patient. She then, without awakening, rinsed her mouth, and I extracted the fellow-tooth on the opposite side. Hypnosis was induced and removed almost instantaneously. The patient stated emphatically that she had no recollection of the operation being performed, that she had felt no pain, and there was no resulting tenderness of the gums.

"Another case, that of a young girl suffering from valvular disease; a weak anæmic subject, whom one would expect to find 'deepen' considerably under nitrous oxide, and remain in a state of collapse for a whole day after ether, was quickly and quietly rendered unconscious. I then extracted two lower molars, which were decayed down to a level with the alveolus, with pulps exposed; also two right lower molar stumps and a lower bicuspid : all difficult teeth. There were slight muscular twitchings, such as one often finds under an anæsthetic, but there was no complaint of pain after the operation, and the patient was quickly restored to her normal condition.

"I extracted in all about forty teeth, tried my best to discover defects and questioned the patients myself, but the results were most satisfactory. Three typical cases are here appended :—Miss A., aged 15. Teeth extracted : right upper molar, left upper molar, *caries*; left lower molar, *abscess*; temporary canine, *persistent. Remarks*: No conjunctival reflex, dilated pupils; no pain.

"Mrs. B., aged 36. Teeth extracted : upper molar right, first and second lower molars right, left lower wisdom, and right lower bicuspid—stump forceps used in each case. *Remarks*: Conjunctival reflex absent, no sign of pain.

"Miss C., aged 24. This patient was sent to me from another room with a note from Dr. Bramwell, stating that he would not be present during the operation, and enclosing a written and signed order for her to sleep and submit herself to my control. Upon presenting this the patient at once fell asleep. I extracted two upper bicuspid stumps, quite buried by congested gums and very tender to the touch. I then awakened the patient and found that she

was quite free from pain. This is important as showing that patients may be sent from a distance without necessitating the personal attendance of the hypnotiser.

"A great advantage of hypnosis over narcosis is that no gag is required in the former, as the patient is entirely under the control of the operator, opening the mouth at command or altering position as suggested.

"I hope to get Dr. Bramwell to give a demonstration to a meeting of the Society, when those interested will be able to judge for themselves.

"W. ARTHUR TURNER, L.D.S. Eng."

The demonstration referred to was given at Leeds shortly afterwards, a report of it being sent, without my knowledge, to the *British Medical Journal* and the *Lancet*. The following is an extract from the account which appeared in the latter :—

"Demonstration of Hypnotism as an Anæsthetic during the Performance of Dental and Surgical Operations.

"A correspondent, on whom we can rely, kindly furnishes us with the following remarkable report Great interest was evinced in the meeting . . . upwards of sixty medical men and dental surgeons accepted the invitation. A letter expressing regret at his inability to be present was read from Dr. Clifford Allbutt, in which he reminded the meeting that he remembered the time thirty-five years ago—when Liston performed several serious operations, using hypnotism as the anæsthetic. . . .

"The first case brought into the room was a woman of 25. She was hypnotised at a word by Dr. Bramwell, and told she was to submit to three teeth being extracted without pain at the hands of Mr. T. Carter, and further that she was to do anything that Mr. Carter asked her—such as to open her mouth, spit out and the like. This was perfectly successful. There was no expression of pain in

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the face, no cry; and when told to wake she said she had not the least pain in the gums, nor had she felt the operation.

"The next case was that of a servant girl, aged 19, on whom, under the hypnotic influence induced by Dr. Bramwell, a large lacrymal abscess, extending into the cheek, had a fortnight previously been opened and scraped freely without knowledge or pain. Furthermore, the dressing had been daily performed and the cavity freely syringed out under hypnotic anæsthesia. To the curative suggestions, daily given to the patient, Dr. Bramwell in a great measure attributes the very rapid healing, which took place in ten days—a remarkably short space of time in a girl affected by inherited syphilis, and in a by no means good state of health. She was put to sleep by the following letter from Dr. Bramwell addressed to Mr. Turner, the operating dentist in the case :—

"'Burlington Crescent, Goole, Yorks. "'DEAR Mr. TURNER,—I send you a patient with enclosed order. When you give it to her, she will fall asleep at once and obey your commands. "'J. MILNE BRAMWELL.

"Go to sleep by order of Dr. Bramwell and obey Mr. Turner's commands. "J. MILNE BRAMWELL.'

"This experiment answered perfectly. Sleep was induced at once by reading the note, and was so profound that, at the end of a lengthy operation in which sixteen stumps were removed, she awoke smiling and insisted that she had felt no pain. She was observed, some time after, reading the *Graphic* in the waiting-room as if nothing had happened. During the whole time she did everything that Mr. Turner suggested, but it was observed that there was a diminished flow of saliva, and that the corneal reflexes were absent; the breathing was more noisy than ordinarily and the pulse slower.

"Dr. Bramwell explained that the next case, a boy

C

of 8, was a severe test and would probably not succeed; partly because the patient was so young, but chiefly because he had only attempted to induce hypnotic anæsthesia two days before. He also explained that patients require training in this form of anæsthesia, the time of preparation varying with each individual. However, he was so far hypnotised that he allowed Mr. Mayo Robson to operate on the great toe, removing a bony growth and part of the first phalanx, with no more than a few cries towards the close of the operation; and with the result that, when questioned afterwards, he appeared to know very little of what had been done. It was necessary in his case for Dr. Bramwell to repeat the bypnotic suggestions. Dr. Bramwell remarked that he wished to show a case that was less likely to be perfectly successful than the others, so as to enable those present to see the difficult, as well as the apparently straightforward, cases."

In the article from which I am quoting, several other successful operations are recorded in detail, and then the account finishes thus :—

"At the conclusion of this most interesting and successful series of hypnotic experiments, a vote of thanks to Dr. Bramwell, for his kindness in giving the demonstration, was proposed by Mr. Scattergood, Dean of the Yorkshire College, and seconded by Mr. Pridgin Teale, F.R.S., who remarked that the experiments were deeply interesting, and had been marvellously successful. The latter also said he felt sure that the time had now come when we should have to recognise hypnotism as a necessary part of our study. The vote was carried by loud acclamations.

"Messrs. Carter Brothers and Turner were cordially thanked for the great scientific treat they had so kindly prepared for the many to whom hypnotism had been first introduced that day, and for the further opportunity, afforded to the few who had seen Dr. Bramwell's work previously, of studying its application as an anæsthetic.

HYPNOTIC ANÆSTHESIA

Mr. Henry Carter replied for the firm, and the meeting closed; the patients looking as little like patients as persons well could, giving neither by their manners nor expression the slightest suggestion (except when external dressings were visible) that they had suffered, or were suffering from, extensive surgical interference." (*The Lancet*, April 5th, 1890, page 771.)

The above account, except a few unimportant details, is correct. The removal of the exostosis was rendered a more severe operation by a preliminary evulsion of the great toenail, and, although the patient showed slight signs of pain, he was afterwards unable to recall what had happened. The after-condition of the patients was remarkable; and the unpleasant symptoms which sometimes follow the use of anæsthetics were absent. They all made a hearty meal, and then returned to Goole, a journey of over an hour by train. The nurse in charge told me she might have been conducting a party home from a fair, as they passed the time in laughing and singing. With the exception of the boy whose toe had been operated on, and who was unable to put on his boot, none of them kept the house; while in every case the healing process was remarkably rapid and unaccompanied by pain.

From that date, I employed hypnotic anæsthesia in a number of minor operations, but, with the exception of the following, few are worthy of special note.

No. 5. Mr. —, aged 40, was run over by a loaded railway waggon, and sustained severe comminuted fracture of the right clavicle, scapula, humerus, radius and ulna. The elbow joint was opened, and gangrene of the lower arm followed. The patient ultimately recovered; but all the joints of the right arm, shoulder, elbow, wrist and fingers were ankylosed. On several occasions he was put under chloroform and the adhesions broken down; this was always followed by swelling, inflammation and return of the immobility. Later, he would neither take an anæs-

thetic, nor allow any attempt at passive movement to be made without one. He was easily hypnotised at the first attempt and analgesia induced. "For some weeks this was repeated frequently, and on each occasion the adhesions were broken down and the mobility of the joints increased. He ultimately returned to his employment, with a strong and useful, though somewhat deformed, arm. This case was seen by Mr. Mayo Robson, both before and after hypnotic treatment.

At a meeting of the Medical Society for the Study of Suggestive Therapeutics, London, January, 1909, Dr. Douglas Bryan, of Leicester, read the notes made by Dr. Fairley, whom he had hypnotised for the extraction of a tooth. Dr. Bryan said: "This record of Dr. Fairley's experiences during hypnosis is extremely interesting and valuable, because it is made by a medical man who has himself treated many cases successfully by hypnotic suggestion, and who, though a willing subject, was very critical."

No. 6. Dr. Fairley's notes ._. "On November 23rd, 1908, at 10.30 p.m., I had my first experience of hypnotism as a patient : this as a preliminary to tooth extraction on the 24th. I was hypnotised three times, and each time the sensations were the same. The operator (Dr. Douglas Bryan) held up his fingers to fix the eyes, and suggested a feeling of heaviness and tired feeling in the eyes, restfulness, etc. The first thing noticeable was a blurring of vision, the same as one not infrequently experiences after fixing the eyes on any object for a time, everything else seeming out of focus. To this blurring there was added a feeling of strain, a half-conscious feeling that if it continued a headache would result, so that on closing the eyes, which one felt naturally inclined to do, some relief was experienced. The relief, however, was not complete, perhaps due to the attention being still kept on the fingers through the closed lids. A feeling of tiredness of the eyes

seemed to persist, but no heaviness or numbress was felt in the limbs or body generally, though this was suggested. The condition was similar to what one experiences on resting after straining the eyes, after microscopic work or reading too closely.

"The mind was active, so active and so conscious that it kept continually asking itself, 'Was it not shamming ?' 'Had one not closed the eyes too soon ?' etc. I kept thinking too, of various other things, e.g. about cycling home that night, about the tooth extraction on the morrow, etc., and was analytical as regards the operator's methods, comparing them with what was expected, with what the patient would have done had he been the operator. It was critical too, e.g. when fixation of an arm was suggested it was noticed that the operator's hand grasped the arm very firmly at first, and this was at once recognised as a better method than the patient had used on his own subjects, as the grasp helped to give at once a feeling of rigidity. Also, when warmth was suggested, the mind critically considered where the hand was laid on the trunk, with what pressure, how little friction was employed, the words used, etc., each point being noted and considered quite as quickly as in the normal waking state. When passes were made down the body, a distinct half-tingling, half-numbed sensation was experienced, travelling down with the hand apparently. Although no shadow came on the face at the time, the sleeve of the operator could be heard rubbing on his coat, and one was therefore quite conscious of what he was doing, but the feeling was so definite that it is hardly possible it could be all the result of imagination.

"The condition might then be described as one in which the inclination to do anything was at a minimum, *e.g.* in the resting position which had been taken up, the collar was felt pressing a little on the neck at one side. One felt inclined in a half-hearted way to pull it down and be more comfortable, but—and here for the first time a feeling of

heaviness was felt in the limbs-when the intention was about to be carried out, the wrist and hand seemed a little more difficult to move than usual, and one did not feel inclined to take the trouble. Again, the legs were crossed, and, on becoming conscious of this, one felt inclined to uncross them, but in such a half-hearted way that no attempt was made to do it; and again, the flicker of the fire was seen through the closed eyelids and one felt inclined in a general way to look at it, but without any definite attempt being made to open the lids. It was felt that they were closed, that it would be a trouble to open them, and indeed that it would be hardly fair, as one wished the hypnosis to succeed, so they were therefore allowed to remain closed. Not that any definite feeling of inability to perform any of these movements was experienced; on the contrary, although quite alive to the fact that patients are at times unable to open the eyes when they think they are able to, one felt and feels absolutely certain that if the wish had been there the eyes would have been opened.

"On numbress being suggested to a limb, no such feeling was at first experienced. After a little, however, one felt that one could let it get numb if one wanted to; something the same as when one's arm is hanging over the back of a chair, one knows that by placing it in another position no numbress will be experienced, the arm will not 'go to sleep'; so by a simple effort of will one felt the arm might easily be kept from getting numb. Instead of wanting it not to get numb, one almost wished for the success of the experiment that it should become so, and one therefore allowed it to get numb, and thus it gradually became so, *i.e.* the same feeling was experienced in it as when a limb 'goes to sleep,' a mixture of tingling and numbress, and this was the same sensation as was felt when passes were made.

"Next day, on being hypnotised for tooth extraction, the eyes were a little longer in closing, partly because the mind

was dwelling to some extent on the extraction, wondering how painful it would be (as complete success was not expected), and partly because it was thought to be good not to close the eyes too soon and have the operation done perhaps too early. After the eyes closed, sensations were as before, except that to a great extent the mind was fixed by the auto-suggestion 'No pain.' No numbress was felt in the cheek or jaw when suggested; and when told to open the mouth this was done, though no good result was expected. Indeed at this time a temptation was present to say that things were not quite ready and to ask the hypnotist to go on with suggestions for a longer time, and it was not due to inability to speak that this was not done, as proved by the fact that immediately after the operation the question was asked, 'Is it out? Have you finished ?'; but more due to a feeling that this would be interfering. At this time probably as much as at any other, the fixing of the mind by the auto-suggestion 'No pain' had a good effect. Sensation was much dulled, as proved by the fact that though the forceps were felt distinctly going into the mouth and gripping the tooth, their exit was hardly appreciated, only the fact of their absence after they were gone, this being the case on both occasions, as the roots (second upper molar left) were removed separately. Analgesia was quite complete. After the second root was removed, a sensation of fluid, which was known to be blood, was felt in the pharynx, and at the same time one was told to sit forward and wash out the mouth. Suggestions of 'No pain' were repeated, and then 'Open your eyes.' At any stage of the operation the power to open the eyes was certainly present, and, now that the operation is past, the conviction is felt that with out the wish for it to succeed, and the active co-operation of the mind of the patient with the suggestions of the hypnotist, success would not have been so complete. Tha faith was not necessary was proved by the fact that the

maximum result expected was a dulling of the pain. Having had teeth extracted previously, it did not seem possible that such an acute pain could be completely checked by what seemed to the patient to be a very light degree of hypnosis."

Dr. Bryan said : "Dr. Fairley has, I consider, given us some very useful information in this interesting and able record of his experiences as a patient, and I am sure we are indebted to him for his fair and unbiassed narration of undoubted facts. I should like to add that the dentist had previously told him that he would advise him to have a local anæsthetic and bear it as long as he could, for the roots were so embedded that nitrous oxide gas would not give him long enough, so it is seen that the extraction was a severe one. Regarding the auto-suggestion 'No pain,' mentioned by Dr. Fairley; after the trial on the evening of the 23rd, having found that Dr. Fairley only went into a light degree of hypnotic sleep, I told him that as soon as he sat down in the dentist's chair he was to commence repeating 'No pain' to himself, and continue to do so until the operation was finished. As soon as the extraction was about to commence I kept repeating 'No pain' until both roots were removed. If a person is susceptible to the suggestion of 'No pain,' it is without doubt the best means of extracting teeth painlessly, as there are no after-effects, no risk, and the dentist has ample time for the extraction."

CHAPTER III

MEDICAL CASES

Cases of Insanity—Grande Hystérie—Moral Insanity, Vicious and Degenerate Children — Nail-biting — Enuresis Nocturna — Alcoholism—Abuse of Narcotics

INSANITY

No. 7. Mrs. ——, aged 35. Nervous family and personal history. On June 7th, 1898, the patient's husband informed me that she had made a determined attempt at suicide, during an attack of acute mania. She had then been certified, and sent to the Priory, Roehampton, on June 3rd. She was violent, slept badly, never spoke, refused all nourishment, and had to be fed artificially. Her husband was anxious that I should treat her, and had obtained the consent of Drs. Savage and Chambers to the experiment.

I visited the patient on June 8th, apparently succeeded in slightly influencing her, and suggested that she should take her food naturally, sleep well, cease to be violent, etc. From that date she never required artificial feeding, and soon began to be quieter and to sleep better. One day, by a ruse, I succeeded in making her speak, and from that time she talked more and more freely. Suggestive treatment was continued till the end of July, when she was convalescent. Recovery confirmed by later reports.

No. S. Mrs. ——, aged 30; April 26th, 1897. Father and several brothers and sisters markedly nervous. The patient had always been nervous; had bitten her nails since early childhood, and never slept well. After her first confinement, in 1891, she became afraid of driving.

and got into a panic during thunderstorms; on one occasion this was followed by a short attack of aphonia.

Her second confinement took place in January, 1897. Almost immediately afterwards she became profoundly melancholic, suffered from insomnia, constipation, indigestion, and loss of appetite amounting to absolute disgust for food. She refused to see her child; and her home became wholly distasteful to her. Careful medical treatment and change of scene were without result. She was sent to me by Dr. Boulting, of Hampstead, on April 26th, 1897. In addition to the symptoms just described, she was haunted by the idea of suicide, and could think of nothing else. She was extremely agitated, could neither sit still nor keep her attention fixed, and had frequent attacks of uncontrollable weeping.

After a few weeks' treatment by suggestion she commenced to improve, and before the end of July had recovered and returned home. Not only did her morbid ideas and suicidal impulses disappear, but she also lost many of the nervous symptoms which had existed before her illness. Recovery confirmed by later reports.

No. 9. Mrs. ——, aged 46; June 22nd, 1900. Father and an uncle on the mother's side committed suicide. Patient had always been nervous, emotional, and a bad sleeper. Since 1897, after influenza, the insomnia had been much worse, and she rarely got more than three hours' sleep at night. She suffered constantly from a peculiar sensation in the neck, with a feeling that she must fall forward. She was very depressed, had fits of uncontrollable weeping, and had lost interest in life. There were also strong suicidal impulses, and the fixed idea that she would commit suicide like her father and uncle.

The patient was sent to me by Dr. Seton, of Kensington, and completely recovered after a month's treatment. There had been no relapse up to the last report (November, 1902).

Miss —, aged 38; November, 1900. Mother No. 10. suffered from religious melancholia, and died in an asylum. Maternal uncle weak-minded. One of the patient's cousins committed suicide, several are insane, and one suffers from obsessions. One sister has delusions, another obsessions. The patient had good health up to puberty, then became quiet and depressed. In 1892 she had an attack of acute melancholia, which lasted several months; since then she has always been depressed and peculiar. In 1895, after a shock, she had a second attack of acute melancholia, and a further one in July, 1900, following a similar cause. When I first saw her, in November, 1900, she hardly ever spoke, was profoundly depressed, had morbid religious ideas, and was untidy and extremely eccentric. She was never permitted to go out alone, as she was quite incapable of taking care of herself, or of avoiding the traffic.

After the first treatment, on November 2nd, 1900, the patient commenced to talk brightly, and told me next day of the various religious fears which had been tormenting her, but which had now entirely vanished. She was seen on four subsequent occasions up to November 14th, when all morbid symptoms had disappeared. A few days later she was well enough to go alone to San Francisco to nurse a sister during her confinement. In November, 1902, Dr. Ozanne, of Harrogate, who had sent the case to me, reported that the patient was in good health and leading a useful life ; there had been no relapse.

No.11. Mr. ——, aged 37; May, 1899. Father insane and under restraint. Twelve months previously the patient began to suffer from constant pain at the back of the head and neck, which was followed by marked decrease in his powers of attention and work. He then became profoundly depressed, lost all affection for his wife and children, and had the fixed idea that he would become insane. Drugs, lengthy holidays with plenty of exercise in the open air, and, finally, treatment in an asylum, were tried without

benefit. Complete recovery, however, took place after six weeks' treatment by suggestion. On December 18th, 1902, the patient wrote to say that he was in good health, and there had been no return of any of his morbid symptoms, despite the fact that he had much family trouble. He had recently lost both parents, and one sister had become insane. In January, 1903, Dr. Wonnacott, of Wandsworth, who had originally sent the case to me, wrote confirming this report.

No. 12. Mrs. —, aged 56, had a bad family history, her mother, sister, and two brothers having suffered from insanity. The patient had her first attack of melancholia fifteen years previously; this was followed by others, both prolonged and severe. Treatment by suggestion was begun on February 12th, 1902, at the request of Dr. Sainsbury. At that time the patient had kept her bed for several months, she was profoundly depressed, had frequent attacks of hysterical weeping, suicidal impulses, etc. Her physical health was good, but she asserted that she could not leave her bed as her mind was gone, and she did not know what to do, or even what clothes to put on. She felt that nothing in life could ever interest her again. At the end of four months' treatment she was well, and at the last report (February, 1903) there had been no relapse. She was leading an active, happy life, without the slightest trace of any nervous trouble.

No. 13. Miss —, aged 26, was sent to me by Sir Malcolm Morris on November 12th, 1907. Four months previously she had applied something to her eyebrow to make the hair grow on a bald patch, and then believed that she had touched her upper lip with the same preparation, and that this would make the hair grow there. This passed into the distinct delusion that she was growing a moustache. She told me that it was no use my trying to get rid of this idea, as she could see the hair growing every hour. She was very emotional and excited, and was constantly

INSANITY

looking at her face in the glass. She slept badly, despite the fact that drugs were taken every night. She entirely lost her morbid ideas after nineteen treatments, and slept well. Up to the last report (February, 1909) there had been no relapse.

No. 14. Miss —, aged 40, was sent to me by Dr. Stanley Smith, on March 7th, 1907. She had had morbid scruples from early childhood and believed she had committed various sins. For the last twelve years she had suffered from *folie du doute*, which had passed into distinct insane delusions. She believed, for example, that the money in her purse was not her own and that she had stolen it. She had similar delusions in reference to nearly everything she possessed, and was irresistibly impelled to confess her supposed sins to her clergyman and to make vows. When I first saw her, she was very nervous and apprehensive. She not only insisted that her sister should always be in the room when she visited me, but she would not consent to my sitting near her when I made suggestions. Recovered; later reports (1909) satisfactory.

No. 15. Miss ------, aged 32; April 4th, 1909. Family history of insanity; mother suffers from depression. The patient's physical health has always been good. Eight years ago, without apparent exciting cause, she had an attack of profound depression which lasted five months. Three years later, she had a similar one for seven months. The present attack began in November, 1908, and was preceded by insomnia. Since then she had ' in profoundly depressed. It was only with great difficulty that she could be induced to get up and put on her clothes. She was frequently violent; struck her mother and other relatives and destroyed their things. She spent most of her time sitting over the fire and tearing her hair out by the roots. After five treatments all these symptoms disappeared, and she is now (June, 1909) well and normal in every respect.

GRANDE HYSTÉRIE

No. 16. Mr. —, aged 23, was sent to me by Dr. Kerr, on June 1st, 1908. His mother was in bad health when he was born; as an infant he had convulsions and vomiting, and also neurasthenia for eight months at the age of 13. He studied in Paris, took a good degree, and afterwards went to Cambridge, where he devoted himself to higher mathematics and advanced physics. In August, 1907, after overwork and emotional shock, he began to have attacks of urgent vomiting every day or two, with constant headaches and much prostration. In September he had no vomiting and felt better. He went to Italy in October, and commenced to have muscular spasms in the train, after which one side of the face and body became paralysed. Then the vomiting recommenced and the paralysis disappeared. He returned to Paris in November, ill and vomiting, and on the 20th of that month, the anniversary of his mother's death, his father found him in bed vomiting, unable to speak, and ignorant of what was taking place around him. This attack recurred twice, with four days' interval, and a specialist diagnosed tubercular meningitis, and prophesied that he would be dead in a few days. December was a bad month : he had attacks of vomiting every other day, particularly during the night. Then, hearing that some of his friends were in Switzerland, he insisted on being taken there. He started from Paris by night, in a "sleeper"; half an hour later he commenced to have delusions and to talk nonsense with imaginary persons. The journey was completed in a sledge, and he became quite maniacal, and had to be held down to prevent him from jumping out. Soon after he arrived at the hotel, he was running about the corridor in his night-shirt. Dr. Kerr, who happened to be staying at the hotel, remained with him most of the night, but he never slept. Next day the local doctor and a male nurse were called in,

but were unable to manage him. He knocked his head against the walls, smashed things, kicked the glass out of the window, and attempted to jump from it. He attacked the local doctor many times. He attempted to jiu-jitsu Dr. Kerr, and twisted his hand badly. Three days later he was quite reasonable, but had general muscular tremor, a very ataxic gait, and frequent vomiting. From that date until May, 1908, he was sometimes better, sometimes worse. He then became very ill, and had incessant vomiting, muscular tremor, and a temperature of 103°. A consultation was held and the possibility of cerebral tumour discussed.

I first saw the patient on June 1st, 1908. He was much emaciated, profoundly depressed, and suffered from vomiting, constipation, and insomnia. His gait, which had been described as markedly ataxic, more closely resembled that of a drunken man, and he could not walk across the room without assistance.

The vomiting ceased after the first treatment, and from that day the patient made a steady and continuous recovery. During August he led an active, open-air life, bathing, boating, sea-fishing, etc. Between July 20th and October 5th, 1908, he gained eighteen pounds in weight. During treatment he never became drowsy; he simply rested quietly and mentally repeated verses from his favourite poets.

The following are extracts from recent letters received from the patient :

January 5th, 1909. "We tobogganed down sheer precipices in a snowstorm, and were nearly killed and suffocated by the speed—about 40 miles an hour down a slope much steeper than the roof of a house—and here I am fitter than ever."

January 23rd, 1909. "I keep as fit as a fiddle; I am so steady of foot that I can climb the most precipitous places quite surely."

February 9th, 1909. "To give you an idea of my state of health, hearken to this : Last week we set out on a two days' walk and covered sixteen miles the first day. On the second we started out at 7 a.m., climbed a mountain some five thousand feet high, and trudged through the snow for hours. The snow was merely very exhausting, but I have been doing some quite breathless work (*i.e.* climbs) on rock. Not so bad when you remember at what pains I was to reach that arm-chair of yours without falling."

Recovery confirmed by later reports. (August, 1909.)

No.17. Miss —, aged 19; June, 1900. A tall, welldeveloped Italian girl, educated and highly intelligent. Mother suffered from hysteria. The patient had her first hysterical attack in November, 1894, after overworking for an examination. This was preceded by headaches and boisterous laughter; then muscular twitchings, at first confined to the shoulders, appeared. Soon these movements became more violent and generalised, and alternated with various muscular contractures; the latter sometimes affected the jaws, and the teeth became firmly clenched. This condition lasted till May, 1895, then disappeared after a short hypnotic treatment.

In July, 1895, clonic spasms reappeared during sleep. In September, 1896, she came to England to teach in a high school, and shortly afterwards began to have spasms in the daytime. At first these affected the left side only, then practically all the voluntary muscles. From the later date until December, 1899, the patient was hypnotised by Dr. — at irregular intervals. At first the attacks ceased after one or two sittings, but the longest remission was only eleven weeks, and they frequently returned at the end of a few days. By degrees the treatment lost its influence : the spasms became more violent and severe, a contracture of the left leg appeared, and the patient could only limp a few steps. She suffered much from headache, was extremely emotional, often depressed, had morbid ideas, and frequent attacks of hysterical laughter and weeping.

In December, 1899, hypnotic treatment was discontinued, and the patient consulted a well-known neurologist. She was placed in a medical man's house; but, as her condition grew worse, she was removed in two months, and admitted as a contributing patient to the National Hospital, Queen Square, Bloomsbury. There she was treated by isolation, rest in bed, and hot baths. Blisters were also applied, in order to render the movements painful. Later, large doses of hyoscine, chloral, bromide, etc., were given, and the patient kept in a more or less narcotised condition for weeks. Despite this, the twitchings, convulsions, and contracture of the leg increased in severity, and she was discharged on June 18th, 1900, much worse than when she entered.

She was then brought to me by Dr. Sainsbury, and I began treatment by suggestion the following day. At that time, except during sleep, the patient had constant jerking movements of the left side, involving the face, arm, leg, and trunk, while the head was drawn violently to the left. She had also frequent attacks—sometimes ten or twelve a day—of the true Salpêtrière type of grande hystérie. After violent generalised convulsions lasting several minutes, the head was drawn backwards towards the heels (arc de cercle) and the face became cyanosed; then, after much abdominal gurgling, the spasm relaxed, the attack ceased, and the unilateral muscular movements recommenced. She never lost consciousness and the seizures were not followed by amnesia; there were no signs of organic disease.

For the first fortnight, every time I treated the patient she had a convulsive attack, but, despite this, I made suggestions in the usual way. She then gradually became quieter, and a week later the morbid symptoms disappeared. Treatment, however, was continued until July 31st,

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but neither during that time nor afterwards were any drugs given.

On September 20th, 1900, she returned to work, and from then up to the last report (March, 1909) there had been no relapse, despite the fact that she was always overworked.

In several somewhat similar cases equally good results were obtained. In one of these the patient had frequent attacks of generalised convulsions invariably followed by amnesia. She also suffered from storms of neuralgic pain; these occurred several times a day, and were absolutely sudden both in their appearance and termination.

In another case the patient had attacks of convulsions followed by generalised catalepsy. During the latter condition, which frequently lasted for several hours, the patient was apparently unconscious and insensible to external stimuli. In both cases recovery followed treatment by suggestion, and there has been no relapse.

MORAL INSANITY, VICIOUS AND DEGENERATE CHILDREN, ETC.

The following conclusions as to the value of hypnotism in the treatment of vicious and degenerate children were submitted by Bérillon to the International Congress of Hypnotism, Paris, 1889:—

1. Many carefully observed facts prove the therapeutic value of suggestion in the following diseases of children : incontinence of urine and fæces, nervous twitchings, nocturnal terrors, onanism, blepharospasm; and other disturbances of the nervous system of a functional character.

2. So far, no appreciable results have been obtained in cretinism, idiocy, or deaf-mutism.

3. Suggestion constitutes an excellent auxiliary in the education of vicious and degenerate children, especially

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where there are habits of lying, cruelty, inveterate idleness, or cowardice.

4. Suggestion should be confined to cases where the usual methods of education have failed, and medical men alone should employ it. It is not necessary to hypnotise normal children; ordinary training ought to be sufficient for them. When, however, children are addicted to theft, and other vicious or repulsive habits, or are afflicted with disgusting infirmities, we ought to try to cure them by hypnotism, especially when their parents are in despair owing to the failure of all other forms of treatment.

These conclusions were adopted unanimously by the Congress, and were transmitted to the Minister of Public Instruction and the Minister of the Interior.

I append some illustrative cases from my own practice.

No. 18. Mr. —, aged 19, February 26th, 1893. Family history bad; mother highly nervous, father died insane. Up to the age of 14 the patient was lively and intelligent; he then commenced to masturbate, and his mental condition rapidly deteriorated. He lost interest in his studies, and frequently stole, generally in a purposeless manner. He had been expelled from school and, when I first saw him, was under the care of Dr. Kingston, of Willesden, who sent him to me. I was informed that the patient was still guilty of theft, addicted to self-abuse, untruthful, absolutely untrustworthy, and strangely apathetic and lazy. There was little or nothing, even in the way of amusement, in which he took the least interest.

After two months' treatment by suggestion he began to improve; before the end of a year he had recovered and learnt a business in which he took great interest. Later reports satisfactory.

No. 19. Miss ——, aged 6, was sent to me in June, 1908. When she was nine months old, her mother noticed that she had daily attacks of excitement with flushing of the face and perspiration, but it was only two

years later that it was recognised that she masturbated daily. Her temper became very bad and she had frequent attacks of violent rage, apparently without reason. On one occasion the attack was almost maniacal, and afterwards the patient did not remember what had happened. When I first saw her she was badly nourished, very nervous and emotional, and slept badly.

Result : recovered. On April 28th, 1909, her mother reported that the child slept well, and was not excitable or bad-tempered. There had been no return of masturbation.

No. 20. Miss ----, aged 15, January 22nd, 1894. Her mother, who had a family history of insanity, was morally insane, and lived a vagabond, drunken life. Her father and uncle both drank, and died insane. I was informed that the patient was deceitful, rebellious, and mischief-making. She frequently complained of queer feelings in her head, but it was difficult to tell how much was real and how much pretence. She was quick and intelligent, and could do her lessons in about a quarter of the time most children took. She was impatient of restraint; she had been sent to two or three families and one school, but in each instance had been dismissed, as she was so insubordinate and unmanageable. I was also informed that the patient lied, stole, and had frequent outbursts of violent passion. I found her strong, muscular, and well developed ; palate normal, menstruation regular.

On January 22nd, 1894, after consultation with the late Dr. Hack Tuke, she was placed in a nursing home, and regularly treated for a month. This was followed by marked improvement, and for the next three years she was seen occasionally, but at distant intervals. She grew into a bright, healthy, attractive woman, who, in 1903, with the exception that she was still somewhat emotional, showed no trace of her former defects. Recovery confirmed by later reports.

history. Before the patient was born, her mother suffered from melancholia. The child herself had been mentally peculiar from infancy; she was persistently untruthful, deceitful, insolent, and dirty in her habits. She had been addicted to self-abuse since the age of 7. On several occasions she had stolen money from servants and others sometimes considerable amounts. She had been expelled from school, and had to be kept at home. She was strong, healthy, and well grown, with nothing abnormal about the head or palate.

After consultation with Dr. Savage, the patient was treated three times a week from March to May, 1894; this was followed by marked improvement. She was seen at intervals during the next two years, and complete recovery took place. Up to the present date (1909) there has been no relapse.

No. 22. In a similar case masturbation was discovered at the age of 8, but the patient admitted that she had indulged in it as far back as she could remember. She recovered under treatment, and recently her mother wrote to say: "My daughter is the joy of my life, and is everything that I could desire—mentally, morally and physically. I can hardly now realise those dark days when I first brought her to you."

No. 23. Mr. ——, aged 27, April, 1900. When I first saw this patient I was informed that he never spoke except when questioned, and that his replies were generally unintelligible. Nothing seemed to interest him, and he neither worked nor amused himself. He was heir to an entailed estate, a fact which added importance to his mental condition. The latter, in the opinion of a well-known alienist, was more likely to terminate in idiocy than improvement.

Apparently the patient had been backward in development, and in consequence had been the butt of his companions. As the result of this, he had progressively

lost confidence in himself, and become more and more self-conscious. Behind all this, however, he appeared to possess much more intelligence than he was credited with; and this view was shared by Dr. Fletcher Beach, who saw the patient in consultation with me.

Treatment was begun on April 19th, 1900, and repeated on 44 occasions up to February, 1901. During that time the patient spoke more and more distinctly, and became less shy and self-conscious. His life became progressively more normal; he engaged in active work, and even spoke in public. The last report, in December, 1902, was thoroughly satisfactory.

Bérillon has recorded numerous cases of nocturnal terror in children, in which recovery took place after a few hypnotic treatments. Equally good results were obtained in various nervous "tics"; amongst these patients, one constantly made a noise with his tongue, and another suffered from involuntary winking of the right eyelid.

The same author has reported many cases of nail-biting which have been cured by suggestion. In some this habit was the only symptom of degeneracy, in others it was associated or followed by other nervous symptoms.

Bérillon terms nail-biting *onychophagie*, and considers the condition a serious one for the following reasons :---

1. It is a sign of degeneracy, and is frequently followed by other symptoms of this condition, *e.g.* onanism, nocturnal terrors, sleep-walking, nervous irritability, etc.

2. It may be the means of introducing the germs of disease into the mouths of the patients.

3. Nail-biters become clumsy in the use of their hands; and the condition is often associated with a certain amount of local anæsthesia.

4. The habit is a common one : in one school, 34 % of the children bit their nails, and 36 % their penholders. In another, 20 % of the boys and 52 % of the girls were nail-biters.

I give an illustrative case from my own practice.

No. 24. Miss —, aged 13, February, 1900, was sent to me by Professor William James, of Harvard University. She had always been emotional and highly nervous. For several years she had walked in her sleep, and during the last four had been addicted to constant nail-biting. Wearing gloves at night and other careful treatment failed to check the habit, and the nails were always gnawed to the quick. She was easily influenced, and neither bit her nails nor walked in her sleep after the second treatment. Later reports satisfactory.

Enuresis nocturna is of frequent occurrence in degenerate children, and in 1887 Liébeault published 77 cases, of which 45 were boys and 32 girls; the average age was a little over 7, the youngest patient being 3 years old, the eldest 18. With all, except 9, the habit dated from birth.

Results.—Of the 77 cases, 56 recovered, 9 were improved, 8 showed no improvement; while 4 were only seen once, and of these there was no further news.

In my own practice, 18 consecutive cases were all successfully treated. Of these, 12 were girls and 6 boys, their ages varying from 4 to 12 years. In every instance the recovery was confirmed by later reports. The following is an illustrative case, the notes of which were given to me by Dr. Wright, Halstead, Essex, who sent the patient to me:—

No. 25. "Miss ——, aged 15, art student, a bright intelligent girl, of good family history, had suffered from enuresis nocturna since early childhood, generally every night; no other neurosis. She had been treated with belladonna and other drugs, but without success. She always dreaded the incontinence, and was miserable and depressed. She was treated by Dr. Bramwell early in 1906, and remained well until June, 1907, when there was a relapse, attributed to overstrain during an examination.

I then repeated treatment by suggestion daily for a week; immediate relief was obtained, and there has been no relapse up to the present date (May, 1909). During treatment the patient only became restful and slightly drowsy."

DRINK AND DRUGS

No. 26. Dr. ----, aged 32, February, 1893. Began taking stimulants at college, and did so regularly afterwards, although rarely in excess till 1888. At that date he had been in practice for two years and was doing well, then had frequent drinking bouts. Despite continued and careful supervision, he drank rectified spirits in secret, sometimes several gallons a month. His health suffered greatly, he was often on the verge of delirium tremens, and on one occasion was supposed to have had slight cerebral hæmorrhage. He complained of palpitation and angina pectoris, and asserted that it was the pain of the latter which made him drink. As his bouts of drunkenness became more frequent and severe, he was compelled to abandon work and to return home. He became steadier, and his parents purchased another practice for him. At first he did well, but soon began drinking again and often took narcotics. I was told that, unless I could cure him, he would have to give up work and be kept by his parents.

He was treated 44 times from February 21st to April 18th, 1893; he then returned to his practice at a distance from town, and I have not seen him since. Shortly after beginning treatment he entirely abandoned stimulants and narcotics, and soon lost all craving for them. He rapidly improved in health and weight, and ceased to complain of palpitation or angina. After passing twelve months without relapse, he married. On February 27th, 1894, his mother wrote as follows :—"The treatment has been completely successful. My son is perfectly well, and quite like his old self—sound in mind and body, and without the slightest wish to take drugs or stimulants in any form whatever. His practice increases steadily. Could anything be more satisfactory?" About the same date Dr. — wrote to say that he had never felt better in his life, and had no desire for stimulants. Since then up to the present date (March, 1909) I have heard occasionally from my patient or his wife. All the reports have been of the same character; he was strong, well, happy, prosperous, and a total abstainer.

No. 27. Mr. —— came to me on February 17th, 1908, and the following history of his case was given me by Dr. Astley Cooper, of Cockermouth, in whose retreat he had been for some time under the Habitual Drunkards Act.

"Mr. —— came to me in November, 1905. He had been drinking to excess for six years, and had also taken laudanum in doses of two or three drachms several times a day. He had had two attacks of delirium tremens. He had homo-sexual desires, but had not given way to them.

"He relapsed in July, 1906, and again in September, 1906, when away on leave. He again relapsed in October, 1906, and in February, 1907. On May 8th, 1907, two bottles of whisky and an 8 oz. bottle of laudanum were found concealed in his top boots in his bedroom.

"He was discharged in November, 1907, and meant to go to British Columbia. He spent a fortnight visiting friends and then relapsed badly. I was sent for, and brought him back here, once more signed under the Inebriates Act with his own full consent.

"In February, 1908, I sent him to you with an attendant, who found a flask of spirits in his possession, but, as far as I am aware, except one drink at the beginning of hypnotic treatment, this is the last alcohol he tasted.

"I saw a good deal of him from the time he returned from your care till he sailed for British Columbia, in

August, 1908, and found him greatly changed in every way for the better, and to my knowledge an absolute abstainer. I have had several very satisfactory letters from him since, and believe him to be keeping quite right. I looked upon him as a typical chronic inebriate; a person with good intellect, but utterly wanting in ballast and self-control."

Mr. — was under my care seven weeks. He rapidly lost all craving for stimulants, and worked at various things which he thought might be useful to him in his colonial life. In March, 1909, a friend who had been staying with Mr. — in British Columbia called and reported that he was keeping well in every way. The patient himself wrote to say that he was thoroughly enjoying his new life, and was working hard on his fruit ranch.

No. 28. Mrs. ——, aged 38, was sent to me by Dr. Colley on October 9th, 1907. She had been drinking heavily for about ten years, and latterly the attacks had become more and more frequent and severe. If anything worried her or put her out, she started drinking and continued doing so until she became ill. Then a couple of nurses would be put in charge ; the patient would gradually get over her attack and abstain entirely for a short time, and then begin again as before.

After the first treatment the patient became a total abstainer, and there has been no relapse up to the present date (1909), although she has passed through a time of unusual strain and stress.

No. 29. Mr. ——, aged 25, February, 1899. Suffered from chronic diarrhœa at the age of 16, for which a mixture containing laudanum was prescribed. This was the commencement of an opium habit which had continued ever since. It was difficult to ascertain the exact amount taken, as the patient tried to conceal this, but he admitted to a daily consumption of 6 drachms of laudanum. Latterly he had much changed in character, while his memory and general business capacity were markedly impaired. The

NARCOTICS

patient was sent to me by Dr. Ware, of Hampstead, on February 24th, 1899, and treated 40 times up to July 19, 1899. Result : recovery, confirmed by later reports.

No. 30. Mrs. ——, aged 37, February, 1898. Twelve months previously, after an attack of influenza, the patient began to suffer from insomnia and severe depression. Sleep was never obtained without narcotics, and there was one attempt at suicide. Six months later, frequent attacks of intercostal neuralgia began, for the relief of which morphia was injected subcutaneously. This treatment had been continued ever since, and repeated several times daily. The amount of the drug taken varied, but it was never less than 3 grains. After a fortnight's treatment the morphia was abandoned, and all morbid symptoms quickly disappeared. Up to the last report (1903) there had been no relapse.

CHAPTER IV

MEDICAL CASES (Continued)

Obsessions, General and Sexual—Causes of Obsessions, Predisposing and Exciting—Mental and Physical Conditions in Cases of Obsession—Serious Nature of Obsessions—Prognosis—Prevention

OBSESSIONS

IN 1894, the late Dr. Hack Tuke published in *Brain* an interesting article on "Obsessions," which he termed "Imperative Ideas." He drew attention to the fact that the mental phenomena associated with obsessions had been much more clearly recognised by French and German than by English writers, and asked Dr. Savage, Dr. Hughlings Jackson and myself to discuss his paper, and the subject generally, in the same journal. This we did, and I cited nine cases of obsession I had treated by suggestion: of these, eight had recovered and one had improved.

I now propose to give a short history of these and some other cases of obsession. Then, with this material before us, I wish to draw attention to some points of interest in reference to the subject of obsessions as a whole. My reasons for doing so are these : (1) The mental conditions involved in cases of obsession have often been misunderstood. (2) Obsessions are of very frequent occurrence; at least half of the patients under my care at the present time suffer from them. (3) As far as my experience goes, treatment by suggestion yields better results in cases of obsession than in any other class of functional nervous disorder. (4) I know of no single instance in which obsessions have been relieved or cured by the use of drugs. Apart from the obsessions, the patients are often in good mental and physical health. In many instances they suffer from a single symptom, such as a dread of enclosed places. They recognise the absurdity of their fears, and, despite them, often do good mental or physical work. It is as absurd to suppose that a drug can influence such a condition as to imagine, in Sydney Smith's words, that stroking the dome of St. Paul's will soothe the Dean and Chapter. What medicine would one prescribe, for example, for an otherwise perfectly healthy and unusually brave man who had an abnormal fear of cats?

No. 31. Mr. ---, aged 24, consulted me in May, 1889. Some months previously he had had a number of diseased glands removed from his face and neck, and went up the Mediterranean to recruit. While crossing a plank, he fell and injured his perineum; an abscess formed, which burst externally and into the urethra. When I saw him there was a large, unhealthy wound, through which the urine escaped. I instructed him to pass a soft catheter regularly, and the wound became more healthy. One day he was impelled to empty his bladder before he could pass the instrument, and water again escaped from the wound. This happened more and more frequently; at last the idea of passing water caused him at once to empty his bladder, no matter where he was at the time. This appeared to be entirely independent of the physical condition of the bladder, which did not contract because it was full or uncomfortable, but because the idea of urination presented itself to the patient's mind, and was at once translated into its physical equivalent. He began to sleep badly and awoke frequently during the night; the instant he did so he thought of his bladder, and was immediately compelled to empty it. Despite all treatment, this continued for several months, and his condition became a grave one.

I had not previously employed "suggestion," but the

mental element in this case seemed so marked that I determined, as other treatment had failed, to try what it would do. After explaining to my patient, an educated man, that I had no practical and only a slight theoretical knowledge of the subject, I proceeded to hypnotise him by Braid's method. In a few minutes his eyeballs rolled upwards and inwards and he became lethargic. I repeated this the two following days, and then suggested that he should cease to think about his bladder, should always be able to pass his catheter, retain his urine eight hours and sleep well. These suggestions were immediately fulfilled; from that day there was no return of his troublesome symptoms, and the wound healed without operation in about twelve months.

No. 32. Mrs. ——. I received the following notes of this case from Dr. ——, the patient's husband: "My wife had suffered from myxœdema, following influenza; she had low temperature, loss of hair, dulness of intellect, slowness of movement, general irregular swelling of the body, facial disfigurement, alteration of voice and muscular pains. I put her on thyroid extract in January, 1893, and although the symptoms peculiar to myxœdema disappeared, she became utterly sleepless, her limbs trembled after the least exertion, and her digestion remained very bad.

"I brought her to you on March 1st, 1894, to see whether suggestion would procure sleep. At the second attempt you succeeded in inducing very slight hypnosis, and she began to sleep fairly well. For more than a year she had never had more than three hours' broken sleep, and often far less. She soon began to sleep thoroughly well and uninterruptedly, and her indigestion, for which I had found drugs and careful dieting ineffective, disappeared after a few suggestions. Her legs became stronger, and her energies restored very much to what they were twenty years ago, when she was renowned amongst her acquaintances for her untiring energy. But the fact that strikes me most forcibly is this. Several members of her family are sleep-walkers. She used to walk in her sleep in childhood, and once or twice as a young woman, and the habit is transmitted to my youngest girl. When her first baby was bornsixteen years ago-the thought crossed my wife's mind, 'What if I walk in my sleep and do an injury to my child ?' I endeavoured to persuade her that she had grown out of the habit, but the attempt was wholly fruitless. The idea grew until it assumed the character of an idée fixe, and she always tied herself to the bedpost at night. All attempts to break herself of this habit were failures, and if she went to bed without fastening herself she was never able to go to sleep until she did so.

"When we moved into our present house, three and a half years ago, she became alarmed at the great height of the bedroom windows from the ground and their lowness from the floor. She began to suggest that possibly she might undo her own knots during sleep and get out of the window. I pointed out how unlikely it was that she should walk in her sleep, after a score of years' complete immunity. She granted my reasoning was just, but it did not dispel her fear, and she insisted upon my tying her to the bedpost each night in a very effective manner. In May, 1894, I told you of this persistent dread and asked you to suggest that she should neither walk in her sleep nor be apprehensive of doing so. During that treatment you repeated this suggestion two or three times, but have not done so since. The effect was magical. She has never asked me to tie her to her bed from that day, and tells me that she has never once thought about it. To me it is all the more remarkable as the hypnosis in her case is so slight and appears to pass into natural sleep if you leave her for a few seconds. She is of a nervous,

excitable temperament, but by no means greedy of the marvellous or ready to accord belief to any new doctrine. She had a healthy scepticism of the possibility of anyone hypnotising her, but was anxious for the attempt to be made as she suffered so acutely."

At the end of a year I saw this patient, when she told me she remained entirely free from her morbid fears; and her recovery is confirmed by much later reports.

No. 33. Mr. ----, aged 32. In 1879, when attending a school of art, commenced to have doubts about his work and lost interest in it. He was making a collection of tracings and copies of various artistic things, but felt this was useless, as it might be destroyed by fire. Later, he commenced to be influenced by every superstition he heard of ; he dreaded passing under a ladder, spilling salt, doing anything on a Friday, or going back to the house for anything he had forgotten. He particularly disliked doing anything in the month of May. Unless he saw the new moon in a particular way, over the right shoulder, he felt something dreadful would happen. He could not sleep unless his pillow was placed in a certain position, and he was always obliged to clean his spectacles in a particular way. He was not naturally superstitious, but yet he was impelled to conform to every superstition he heard of, and gradually these morbid ideas filled his entire mental life and interfered with many of his actions. Ultimately, there were so many places he was afraid of going to, and so many things he was afraid of doing, that sometimes he could go nowhere and do nothing. At first he recognised the absurdity of his fears, but in the end they became delusional. He was not afraid that he himself would suffer if he did not conform to his superstitious ideas, but felt that something awful would happen to God Almighty. He was miserable, depressed, and had suicidal ideas. He improved greatly under treatment, but I have not been able to trace his after-history.

No. 34. Mr. —, aged 25, first consulted me March, 1890. Formerly strong and athletic, distinguished football player, bicyclist, etc. Two years previously, after the death of his mother from cancer of the breast, he began to fear that he might contract the same disease. This idea grew stronger and stronger; he became neurasthenic and suffered from insomnia, depression, dyspepsia, etc. Finally, the dread of cancer passed into the firm conviction that his left breast was infected with it. He remained nearly always in one room, and would not go into another without muffling himself up and putting on an overcoat. For some months he complained of difficulty in moving the left arm, and carried it in a sling. I found nothing to justify his fears, but the muscles of the arm were distinctly wasted from disuse. He was easily influenced at the first attempt, and treatment was repeated nearly every day for a fortnight. His morbid ideas disappeared; his general health speedily improved, and a few days after treatment was abandoned I saw him driving a spirited horse. A week afterwards, he told me he felt perfectly well, and was going to train a young horse to jump. Recovery confirmed by later reports.

No. 35. Mr. ——, aged 28, first consulted me in April, 1894. His father was very nervous and passionate, and had suffered from chorea. At the age of 14 the patient had many religious doubts and fears, and believed he had committed the unpardonable sin. At 16, while working in a cocoa manufactory, he began to fear that the red lead used in fastening certain hot pipes might get into the tins containing the cocoa, and so poison people. This was the commencement of a *folie du doute* and *délire du toucher*, which had never since left him. Instead of going on with his work, he was irresistibly impelled to clean and re-clean the tins. The following is taken from a letter of a friend to whom he confided his troubles :

"On October 1st, 1891, Mr. --- told me that he had

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attempted to commit suicide, as his life was so miserable." (He had taken poison.) "He had read of a case of poisoning through eating chocolate, and connected himself with it, though it was five years since he had helped to manufacture any. He now believed he might have been careless with the moulds, and thus have produced a poisoned chocolate, which years afterwards had caused the child's death! The grotesque absurdity of the story, as he related it to me, would have made me laugh, had I not felt how terribly real it was to him. His vivid imagination had pictured every incident of the tragedy: the child buying the chocolate, running home full of happiness, then becoming ill and gradually sickening in awful agony till released by death. The keenness of mind with which he sought to prove the reasonableness of his belief that he had poisoned the child was extraordinary.

"He wrote: 'Yesterday I was unscrewing some gas burners in a provision shop and got some white lead on my hands, and I have been thinking that it may have got amongst the food.' I found that brooding over this fancy had brought him to the verge of despair, and for weeks his life was a perpetual agony. He worries himself about his work of fixing advertisement-plates to walls, and can never persuade himself that they are securely fastened. He fancies the nails are bad, or the mortar loose, and makes himself ill over it. I have pointed out to him that if a plate fell it would almost invariably slide down the wall. This has not prevented him from painting a most elaborate mental picture of the decapitation of an unfortunate youngster who happened to be playing marbles, with his head against the wall.

"To enumerate all his troubles would take a small volume. I have a great pile of letters before me now, and I suppose they constitute one of the most extraordinary analytical autobiographies it would be possible to find. In reading them I cannot help marvelling at the strange, unshapely wonder of such an imagination. He makes every incident in his life the foundation stone of a castle of fancies; and of late years each castle has become a prison —a torture chamber in which he has dissected his motives and his actions, until he has ceased to believe in himself at all."

When I first saw the patient the folie du doute and délire du toucher were constant, and most varied in their manifestations. If he accidentally touched persons in the street, he began to fear that he might have injured them, and exaggerated the touch into a more or less violent push. If the person touched were a woman, he feared that she might have been pregnant and that he might have injured the child. If he saw a piece of orange-peel on the pavement, he kicked it into the road, but soon afterwards began to think that this was a more dangerous place, as anyone slipping on it might strike his head against the kerb-stone; and so he was irresistibly impelled to return and put it in its former position. At one time he used to bind himself to perform certain acts by vowing he would give God his money if he did not do them. Then he was uncertain whether he had vowed or not: owing to this, he gave sums to religious objects which were quite disproportionate to his income. Apart from his peculiar fancies, I found the patient perfectly rational and intelligent; and, though his délire du toucher hindered him greatly in his work, he generally managed to execute it, but sometimes had to abandon the attempt. I treated him on twenty-four occasions, but apparently without success, and he was then compelled to leave town. He returned on April 2nd, 1895, for a week's further treatment: he told me that since his former visit his morbid ideas had been neither so frequent nor so marked, and were accompanied by less mental agony. From that date, though the treatment was not again repeated, he rapidly recovered, and six months later stated that he could laugh at his former fears.

He has, however, recently relapsed (1909), and writes to say that he is worrying about people whom he believes he might have accidentally killed twenty years ago.

No. 36. Mr. ----, aged 33, tall, strong and athletic, was sent to me on March 7th, 1894, by Dr. Boulting, of Hampstead. The patient stated that he had always been of a sensitive disposition and inclined to be morbidly selfconscious. Of late years this had greatly developed and made his life a burden to him. He had the fixed idea that he was constantly making mistakes, and that all those with whom he was brought in contact considered him a fool. During a business interview he was embarrassed, spoke with difficulty, and felt that everyone must notice this. He had the same feelings in reference to society, and shunned it as much as possible. He also had morbid, and entirely unfounded, fears about his physical condition. He was treated ten times to July 11th, 1894, and his morbid ideas entirely disappeared. A year later he told me there had not been the slightest relapse, and that he was now fond of society and at his ease in it.

No. 37. Mr. ----, aged 35, was sent to me by Dr. de Watteville, on October 29th, 1894. His illness had begun six months previously, after the sudden death of his brother-in-law. From that time he slept badly, dreamt of his own death, and was haunted by constant fears about himself and his family. He developed agoraphobia, was unable to cross a road without assistance; dreaded losing his employment, and feared he would find his wife and children dead when he returned from work. One day, when sitting alone, he believed he saw two men bring his coffin into the room. He was utterly miserable, and had strong suicidal impulses. He also had frequent attacks of giddiness, and felt he would fall unless he caught hold of something: on one occasion he lost consciousness. He was treated five times up to November 12th : his morbid fears had then almost entirely disappeared; but, as he

still had attacks of giddiness, I saw him occasionally up to April, 1895. His recovery was confirmed by later reports. Case shown at Bethlem Hospital and elsewhere.

No. 38. Mr. —, aged 21, was sent to me on November 5th, 1907. He had been nervous from early childhood and could never sleep in a room without a light. He was unable to travel by himself, and could not go into a restaurant, or other public place, where there were strangers. If he were alone in a room, and had the slightest difficulty in opening the door, he suffered agonising terror and felt that he was dying. He dreaded paralysis and other diseases, and also had religious fears and delusions of persecution; for several years he believed that he was followed by a man in a slouch hat. He recovered after a somewhat prolonged treatment and began work. On November 7th, 1908, the patient's mother reported that her son was in good health and interested in the business into which they had put him.

No. 39. Mrs. —, aged 32, was sent to me by Dr. Forbes Ross, on November 5th, 1907. She had always been nervous, and for four years had suffered from agoraphobia. Then, after a cab accident, she was quite unable to travel in any vehicle. When she came to see me, she was obliged to walk from her home at Hampstead, and back again. After being treated thirty-four times she recovered, and afterwards reported that she had spent a holiday in Paris and had had no nervousness in travelling. She had also been in a motor accident, but this had not upset her. A later report (March, 1909) confirms her recovery.

No. 40. Mr. —, aged 35, schoolmaster, was sent to me by Dr. Hyslop, of Bethlem Hospital, on January 2nd, 1908. Family history and general health good. At the age of four he commenced to have irresistible obsessional impulses to throw things off the table; these lasted four years. Then, for some weeks he had an impulse to push -

something into his own eye, but this he was able to resist. Since then he had never been free from obsessions, which of late years had been mainly a dread of heights, with an impulse to throw himself from heights, out of windows, and in front of express trains. His classroom was on the third storey, and the obsession about throwing himself from the window became so strong that he had to give up work. He recovered after sixteen treatments. On February 22nd, 1909, Mr. ---- wrote as follows: "All things have gone well with me since our last meeting, and there has been no return of the trouble I was suffering from before I went to you. I sent up four boys for scholarships in December to Oxford and Cambridge; they were all successful. This you may consider a fairly good criterion that I am in every way fit to do my work. In January, I travelled in an express train (from Ipswich to London) alone-I mean alone in the compartment; it was the first time I had done so for about eight years."

No. 41. Mr. ——, aged 56, solicitor, consulted me on January 24th, 1906. About twenty years previously he began to have obsessions in reference to his work; these especially took the form that he had not paid sufficient death dues, etc., on behalf of his clients. His fears were constant, and, as soon as he ceased to worry over one case, another presented itself. The strain and mental agony were so great that he was compelled to give up his profession and lead a very secluded life. Recovered : he now travels, takes an interest in public affairs, etc.

No. 42. Mr. ——, aged 40, was sent to me by Dr. Ross Sinclair, on October 3rd, 1907. He had suffered from various obsessions from the age of 23, and for several years these bad been mainly associated with his work. He was secretary to a public company and dreaded having to read any report; his voice and limbs trembled,

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and he felt unable to control himself. These fears increased and spread to everything connected with business. Before any important interview he had to take several glasses of spirits; and from time to time he deliberately got drunk. His mental agony from his obsessions was so great that he felt he would become insane unless he could in some way alter his emotional condition. He found that his feelings of remorse after getting drunk took the place of his obsessional ideas for some little time, and thus gave him temporary relief. He recovered after eighteen treatments, and in March, 1909, wrote to say there had been no relapse, and that he enjoyed his work.

No. 43. Mr. ——, aged 65, first consulted me in May, 1908. At the age of 25 he began to suffer from obsessions, particularly the dread of becoming insane. After some years this passed off; but, later, he felt constantly impelled to repeat mentally a series of proper names. This irritated and worried him, and produced a feeling of great strain. His obsessional ideas were worse at night, and in consequence he suffered much from insomnia. Recovered after a short treatment.

No. 44. Mrs. —— had long suffered from obsessional fears of two kinds. First, she had an intense dread of travelling and could never do so alone. Secondly, if her husband, who is a medical man, did not return home at the hour he had fixed, she always believed that an accident had happened to him. On such occasions she would go, and take others with her, to search for his dead body. Mrs. —— only received two treatments, and on July 8th, 1901, Dr. —— sent me the following description of the result :—" First, as to her fear of travelling. On her journey north, the week after seeing you, she did not show any signs of fear as she used to do. I noticed that she looked out of the window and remarked on things we passed, instead of, as formerly, becoming giddy and sick from seeing the trees and hedges fly past. For the first

time in six years she took a good lunch, and tea three hours later; and did not every half-hour ask for cups of tea or stimulants, and leave them untasted when they were procured. On arrival, she was not worn out and obliged to go to bed at once, but interested herself in the house and her unpacking till bed-time.

"As regards her exaggerated fears for my safety when away from home. I have been away all day very frequently since our return, and sometimes have not reached home till about 7 p.m., but without her having been upset by my non-appearance at the usual time. On one occasion, when I was delayed for three hours by a cycle tyre bursting and did not reach home till long after I had expected, she was not unreasonably anxious.

"I have no doubt whatever that the improvement is due to the suggestions she received, even though only on one occasion." (She was only supposed to have been influenced the second time she saw me.) "On this journey she did not appear to require to control herself, her imagination not raising up the usual terrors of an accident."

On March 3rd, 1909, Dr. —— wrote to say that his wife had never had a return of her unreasonable fears. He also said she was going to travel alone from Scotland to London, and so I could judge that she considered herself cured.

No. 45. Mr. ——, aged 31, was sent to me by Dr. Risien Russell, on May 21st, 1908. The patient had suffered from various nervous fears from early childhood, and from the age of 16 these had become progressively worse. He was physically strong and his general health was satisfactory, with the exception that he sometimes slept badly and had night terrors. He suffered from claustrophobia, but his worst fears were suicidal and homicidal. He was afraid to shave, lest he might have an impulse to cut his throat. He dreaded going to a railway station, as he felt that he might be impelled to throw himself in front of a train. He constantly dreaded sudden illness, especially insanity or apoplexy, but his worst fear was that he might be impelled to murder his wife and children. Result: recovery; confirmed by a later report, March, 1909.

SEXUAL OBSESSIONS

According to Dr. George Savage, "certain associations produce ideas of sexual impotence, or some slight things during the earlier days of marriage set up imperative ideas which produce loathing, hatred, and impotence, which will be dangerous to one or both of the parties. A young married man finds from certain facts (?) that his wife is not a virgin, or he may simply get the notion into his head, and it may dominate his life." A considerable number of cases of this kind have come under my observation, and most of them have recovered under suggestive treatment. I will give a few examples.

No. 46. Mr. —, aged 35, healthy and athletic, was sent to me by Dr. Raymond Crawfurd. He was continent before marriage and had never masturbated. He had been married over three years and was completely impotent, and this had not been improved by medical and surgical treatment. On November 28th, 1898, treatment by suggestion was begun, and continued for a month. From Christmas, 1898, his sexual life became that of a vigorous, normal man. There has been no relapse, and he is now the father of three children. In this case the origin of the obsessional idea could be traced to certain emotional troubles that had occurred during his engagement.

No. 47. Mr. ——, aged 38, was sent to me on March 26th, 1908, by Dr. Attlee and Mr. Pardoe. He had been continent before marriage, but had masturbated a little in boyhood. He was exceedingly shy in reference to all sexual matters. He had nocturnal emissions and distinct sexual desire, but erection always ceased when he tried to approach

his wife. She had a contracted vagina and an almost imperforate hymen: this was corrected by operation after marriage. The patient had been married six years, and during this time the impotence had been complete, despite varied medical and surgical treatment. He was treated by suggestion on seventeen occasions, and his sexual life became normal. In February, 1909, he wrote to confirm his recovery and to inform me that his wife was pregnant.

No. 48. In another case, also sent to me by Mr. Pardoe, the patient had no difficulty in having intercourse, but in no single instance had this been followed by emission. After a short course of treatment by suggestion his sexual life became entirely normal. Recovery confirmed by recent report (April, 1909).

No. 49. In one still more striking case, sent to me by Sir Victor Horsley, on October 31st, 1903, the patient's sexual instincts from earliest boyhood had been homo-sexual, and unnatural sexual connection had frequently taken place. He married, hoping this might cure him, but when I saw him there had been complete impotence, as far as his wife, or any other woman, was concerned, during the whole of his life. The attraction of his own sex was a veritable obsession, while the idea of touching his wife was as repugnant to him as the idea of touching his sister. After prolonged treatment by suggestion, he entirely got rid of his morbid ideas, and his sexual relations with his wife became normal.

It is almost impossible to exaggerate the amount of family unhappiness dependent upon sexual disabilities. In some of my cases, the wives had strong sexual feelings, while in others there was an intense desire to have children. These wives were not only unhappy themselves, but made the lives of their husbands a burden to them by their reproaches.

No. 50. In another case, a girl of about 25, the sexual obsession was of an extraordinary character. Before

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puberty, sexual feeling was excited by reading or hearing the words "myopia" and "myopic," and also by seeing anyone wearing myopic spectacles. The patient used to look these words up in the dictionary and gloat over them. At a later date, she quite accidentally learnt to masturbate, and when doing so always thought of myopia or myopic spectacles. She was very innocent and prudish, and quite ignorant about sexual matters. One day she told an older woman all about this, and was horrified and brokenhearted when it was explained to her that she was committing a "dreadful and degrading sin." Recovered. Later reports satisfactory.

The cases I have cited are simply illustrative ones; I could quote many more from my own practice, and supplement them by numerous other successful cases reported by Continental medical men.

Predisposing causes of obsession.—Savage says : "In my experience, the most common predisposing cause has been hereditary predisposition of some kind, some neurosis, or a tendency to nervous degeneration present in the patient's parents, or other marked evidence of nervous instability in brothers, sisters or cousins. There is a close relationship between obsessions and the neurasthenic condition. Neurasthenia depends to a great extent, if not entirely, on faulty association of ideas."

Obsessions are usually regarded as being typical of degeneracy, and especially of hereditary degeneracy. Many of my cases seem to confirm this view; the patients were weak mentally and physically, and had unsatisfactory hereditary antecedents. In several instances their obsessions had become insane delusions; many of them had suicidal impulses; some had attempted suicide and others had hallucinations. On the other hand, some were physically far above the average, while many of them possessed mental endowments of high quality, and their morbid ideas did not prevent them from doing good work. Most of them, it is

true, were of an emotional, nervous type; but is the sensitive, mobile brain necessarily degenerate? May not the accidents to which it is liable be the result of its higher and more complex development? The thoroughbred is more emotional and nervous than the cart-horse, but is this necessarily an evidence of hereditary degeneracy? The term "degenerate" is applied so freely and widely by some modern authors, that one cannot help concluding that they rank as such all who do not conform to some primitive savage type, possessing an imperfectly developed nervous system. Further, in some of my cases the family history was good, and the patients, before the obsessions appeared, were free from all symptoms of nervous trouble or degeneracy. In one instance, the disease followed an attack of typhoid fever; in others, influenza appeared to be the starting point.

Savage says: "I believe that these imperative ideas are very common, and that nearly everyone has some. . . I have the feeling, which is common, I believe, about walking along a pavement: I have an inclination to avoid the cracks; and at the same time I have a tendency, I own not irresistible, to touch the iron railings with my stick when I walk along a street."

Exciting causes of obsession.—With regard to these, Savage states that he has "met with many cases in which the obsession appeared to be a steady morbid growth, which had been for long under the surface, but through some accidental cause had been brought into sight. Shock may produce the effect—it may be one sudden shock, a repetition of shocks, or the result of a prolonged state of expectancy and anxiety: thus a person who has been in imminent danger for some time may become so affected that the dread is never overcome. Allied to this, I have met with instances when a dream of unusually vivid character has been enough to start the whole train of morbid ideas, and has fixed them for ever. There is no doubt that the nervous system, under certain conditions,

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is more prone to take these impressions and to retain them. It seems as if, through certain surrounding conditions, an impression is made which reaches the more fixed and automatic part of the nervous system, so that it is no longer merely stored for use when it is called for by consciousness, but it appears as a reflex act, one impression bringing it up without any will being exercised."

In nearly all my cases the condition appears to have had an emotional origin. The shock of the sudden death of a relative caused one patient to fear his wife would die; another dreaded travelling after being frightened by a drunken man in a railway carriage, etc. Although in some instances the emotional element changed its character, and in all became greatly intensified, it was certainly generally associated with the commencement of the original trouble.

Marcé says: "In a predisposed person, feeble of character, endowed with keen sensibility, a word, an emotion, a fear, a desire, leaves one day a profound impression. The thought, born in this manner, presents itself to the mind in an importunate way, takes possession of it, does not leave it, dominates all its conceptions; during this time the individual may be conscious of all the absurdity, unreasonableness, or criminality of this idea; the acts themselves soon conform to these unhappy preoccupations, and become absurd or extravagant."

The mental and physical conditions existing in cases of obsession.—I do not propose to discuss the obsessions of the neurasthenics, although, as far as my experience goes, in every case of neurasthenia there are obsessional ideas. These are generally varied, but all have reference to the patient's supposed mental or physical condition. In extreme cases these ideas are ever present, always talked about, and control or excite the patient's actions.

The transition from the normal state to obsessional

ideas is frequently almost insensible, in some instances the repetition of insignificant sayings being, according to Ribot, the slightest form, and preoccupation, such as anxiety about an examination, a degree higher. Further, Ribot says: "In every sound human being there is always a dominant idea which regulates his conduct; such as pleasure, money, ambition, or the soul's salvation."

One class of obsessions, then, may be said to have their origin in the affections, and to be simply an exaggeration of natural anxieties. For example, a father, devoted to his children and anxious about their well-being, gradually became abnormally fearful until, ultimately, he suffered agonies when they were out of his sight. If he gave them permission to go for a walk, as soon as they passed out of the avenue in front of his house, and he was unable to see them, he was obliged to send for them to be brought back. In many other instances the not unnatural anxieties associated with business became so acute that the patients were forced to retire.

Much doubt has existed, and still exists, in reference to the mental conditions involved in obsessions. Dr. Ladame, for example, in referring to the different opinions expressed about folie du doute and délire du toucher by Schüle, Magnan, Krafft-Ebing, Marcé, Jules Falret, Morel, Lasègue, Ball, Meynert, Kraepelin and Scholz, says that folie du doute is regarded by contemporary writers as a symptom of the most varied mental affections, sometimes as a psychopathic episode of hereditary degeneracy, at others as a special form of psychosis, or as a simple elementary trouble dependent on the general pathology of mental alienation. Thus doubt, he says, not only exists amongst the patients: it has passed into science, and could equally be called folie du doute on account of its uncertain place in the chart of mental maladies, as because of the strange symptoms which characterise it.

A clear distinction between these diseases and recognised

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forms of insanity was made for the first time by Morel, in 1886. He stated that patients suffering from obsessions did not interpret them after the manner of the insane; that they had neither hallucinations nor illusions, nor underwent those transformations which change the personality of the insane and make them radically different from what they were before. According to Westphal, also, the obsession never becomes a true *idée fixe délirante*, but always remains a stranger to the patient's ego, while the insane conform logically to the deductions of their fixed ideas. This scientific distinction between insane ideas and obsessions has long been recognised by the Church, which has always made a difference between possession and obsessions, saying, for example: "This man is not possessed, he is only suffering from obsessions."

Ribot applies the term "fixed ideas" to the states we are discussing, and regards them as "chronic hypertrophy of the attention"; the fixed ideas being the absolute, attention the temporary, predominance of an intellectual state or group of states.' The fixed idea is attention at its highest degree, and marks the extreme limit of its power of inhibition. There exists, he says, both in normal attention and in fixed ideas, predominance and intensity of a state of consciousness; this is more marked, however, in the fixed idea, which is permanent and disposes of the important psychical factor-time. In attention this exceptional state does not exist long; consciousness reverts spontaneously to its normal condition, which is a struggle for existence between heterogeneous states. The fixed idea prevents all diffusion : there is no antagonistic state that is able to overthrow it; effort is impossible or vain: hence the agony of the patient who is conscious of his own impotency.

The following is Ribot's conception of the probable physiological condition associated with fixed ideas: "In its normal state the entire brain works; diffused activity

is the rule. Discharges take place from one group of cells to another, which is the objective equivalent of the perpetual alterations of consciousness. In the morbid state only a few nervous elements are active, or, at least, their state of tension is not transmitted to other groups. Whatever may be their position in the cerebral organ, they are, as a matter of fact, isolated ; all disposable energy has been accumulated in them, and they do not communicate it to other groups; hence their supreme dominance and exaggerated activity. There is a lack of physiological equilibrium, due probably to the state of nutrition of the cerebral centres."

Ribot refers to Westphal's recognition of the difference between fixed ideas and insanity, and his statement that "the fixed idea is a formal alteration of the process of ideation, but not of its content." The "formal" perturbation consists, says Ribot, in the inexorable necessity that compels the association always to follow the same path. "There is alteration, not in the nature or the quality of the idea, which is normal, but in its quantity, intensity and degree." Thus, it is perfectly rational to reflect upon the usefulness of bank notes, or the origin of things; and this state differs widely from that of the beggar who thinks himself a millionaire, or the man who believes himself to be a woman.

According to Pitres and Régis, it is the emotion which is the essential condition in obsessions; the constant and indispensable one. If you take an obsession, no matter of what kind, and suppress the fear or anxiety which is associated with it, the obsession no longer exists. On the other hand, if you abstract from the obsession its fixed idea or impulsive tendency, and only leave fear or anxiety, you still have the essential part of the mental disturbance left. For example, you can have a state of generalised fear and anxiety, or even a fear of having a fear. Thus, these patients have no fixed idea, no specialised obsession, but yet have a

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constantly recurring dread of something they cannot define. Further, there are many cases of obsession in which the obsession is multiplex, or, having commenced with one special obsession, passes into a totally distinct one, or several different ones may be present at the same time. The intellectual phenomenon, the sentiment or idea, varies, but the emotional phenomenon, the anxiety or fear, is always present.

The following is the description given by these authors of the origin of a case of obsession :- A sensitive young man blushed, for example, under circumstances more than usually painful, and this produced a moral shock. From that date, under certain definite conditions, particularly in the same circumstances and before the same people, the same phenomenon of involuntary blushing was produced, more and more painfully in proportion as its appearance was feared. Up to that date it was only a systematised fear, with purely intermittent manifestations, but little by little the dread of this infirmity took possession of the mind of the patient, and dominated it so thoroughly that the memory alone of an attack of blushing made him blush. From that time he always thought about blushing; a "fixed idea" was grafted upon the original emotional phenomenon, and the fear became a true obsession. Thus, an obsession is often a morbid fear which has lost its character of simple emotional trouble in order to take, through the course of its natural evolution, the characteristics of a trouble at the same time emotional and intellectual.

Amongst my own cases, the most noticeable fact has been the mental agony of the patients. Fear has been the predominant element. Generally, they dread that something is going to happen to them, such as sudden illness, death or suicide, or they fear that they have actually injured others or may yield to an impulse to do so in one way or another.

When the obsessions have been more purely intellectual as in the case of a woman who worried about the Creation,

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and put all sorts of questions to herself and sought in vain for their answers-these fears have been neither so acute nor so specialised; but still, in all the cases I have observed. they existed to some extent and arose from, though they were not directly connected with, the obsession. For example, a patient suffering from insoluble self-questionings, such as the origin of things, etc., is not in the same frame of mind regarding this as the patient who dreads cancer, suicide, or an impulse to injure others. On the other hand, she may develop a more or less intense fear that these questionings may injure her own brain. Again, the impulse to touch certain objects, to do certain things, or to conform to certain superstitions, is generally associated with fears, either as regards the patient himself or others. Thus, in the case of the man who was influenced by all superstitions, he felt, if he did not conform to them, that something dreadful would happen to the Almighty.

It is true, as Morel says, that, in typical cases of obsession, the patients fully recognise the absurdity and unreasonableness of their ideas, and constantly fight against them. On the other hand, obsessions have undoubtedly a tendency to become insane delusions. Thus, in one case, the dread of acquiring cancer passed into the fixed belief that it existed. In other instances, fears of having injured others became delusions that such injury had been done. In another case, where the patient had many abnormal conscientious scruples, and fears of committing various sins, these ultimately passed into insane delusions. She believed, for example, that her umbrella was not her own, that she had taken it from someone else, that she had stolen the money in her purse, etc.

As far as my experience goes, none of the patients who dreaded yielding to their impulsions to injure others ever gave way to them, and I have observed the same thing in reference to their fears of committing suicide in some particular way, such as throwing themselves before a train, jumping from a height, etc. On the other hand, I have known of cases where the dread of being forced to commit suicide in one way has indirectly led to the patients doing so in quite a different manner, *i.e.* the agony of striving to resist their fixed ideas has caused them to take their lives in order to escape from the obsession. Further, one of my patients attempted suicide because his life had become absolutely miserable through his delusions that he had caused the death of others by poisoning them.

According to Dr. Gélineau, a crowd of sentiments of repugnance, etc., which the laity group as aversions, closely resemble the conditions we are discussing. Henry the Third, for example, who showed his bravery at the siege of La Rochelle and elsewhere, could not bear the sight of a cat; the Duke of Epernon fainted at the sight of a young donkey; Ladislas, King of Poland, got frightened and ran away when he saw apples; and Favoriti, a modern Italian poet, could not bear the smell of a rose. Montaigne says: "I have seen more people driven to flight by the smell of apples than by arquebuses, others frightened at a mouse, made sick by the sight of cream, or by seeing a feather bed shaken."

Similar observations have been made by Savage, who says: "The body has its imperative ideas—one person being unable to stand the presence of a cat, while another is affected by a rose. The senses, in fact, give us valuable aid in considering the question, for not only can we see that these imperative nervous influences may be primary, as with the cat smell, but they may be secondary or associated; thus in the so-called photisms, certain persons have associations with a sensation which has no real relationship to them. For example, one man hears a vowel sound and sees a certain colour at the same time; whereas another, perceiving a certain smell, also sees a certain colour arise with the olfactory sensation. These sense-relations are very imperative, and are so firmly

established that most of those who have them cannot go back to any moment when they were free from them."

The fact that an obsession remains a stranger to the patient's ego distinguishes it, according to most authorities, from an insane delusion. This rule has its exceptions. One of my patients commenced to be "inhibited" by various superstitions. Many people, by no means insane, actually believe in, and are influenced by, similar superstitions, but it is just their belief in them which prevents the condition being one of obsession, with its inseparable mental distress. This patient, however, did not believe in them, at all events for some years, and keenly resented their interference with his actions. Thus, the nonassimilation of the obsessional idea sometimes constitutes the morbid element, and this apparently depends more upon the individual than upon the idea itself. The patient who made herself miserable about the Creation might, under other times and circumstances, have taken pleasure in discussing the number of angels who could stand upon the point of a needle, or whether, in passing from point to point, they had to traverse the intermediate space. The imperative idea to discover the site of ancient Troy only differed from those we are discussing in the fact that it was assimilated by its possessor ; but this did not constitute insanity.

The serious nature of obsessions.—Bérillon thinks the professional character of these nervous troubles has not been sufficiently noticed, and he draws an analogy between them and the different functional spasms which show a tendency to professional localisation. In illustration of this he cites the following cases :—A young priest, not timid in the performance of his other religious duties, suffered agony on entering the pulpit; another was affected in the same way when he received a confession. A medical student suffered extreme agony at the sight of a few drops of blood. A chemist made up a prescription which caused the death of a customer: he was able to prove that it was dispensed exactly as ordered by the doctor, but, as his existence became a veritable torture from constant fear of making a mistake, he sold his business. A notary only had morbid fears when he had to give a professional opinion. A hairdresser noticed that his hand trembled one day, and then constantly dreaded that this would reappear when he shaved his best customers; the same anxiety did not exist when he had to shave a poor or unknown customer.

Dr. Frémineau reports the case of an actor who abandoned his profession on account of extreme stage fright; this condition only appeared after a successful career. Dr. Bérillon reports several similar cases.

Riegler has noticed a morbid dread amongst railway mechanics, to which he has given the name of *sidérodromophobie*; this is characterised by an extraordinary aversion to their habitual occupation, and the sight of a train or the whistle of an engine is sufficient to revive their disgust.

Grasset mentions that a distinguished Parisian surgeon commences to be anxious the moment a patient leaves his consulting-room with a prescription. He anxiously asks himself whether he could have written centigrammes instead of milligrammes, and only recovers his mental calm when his servant, sent to seek the patient, brings back the prescription and he can see that it is all right. Another doctor, Grasset says, is rendered perfectly miserable by the fear of microbes.

Brochin reports the case of a doctor who fears no contagious malady except diphtheria, and who shows proof of veritable heroism every time he sees a diphtheritic patient. A case has recently been reported from abroad in which a medical man, dreading that his fees might be the means of contagion, invented elaborate methods of sterilising them; and I know of similar cases in this country.

I could quote numerous cases from my own practice, in addition to those already cited, where the obsessions have interfered with occupation or entirely prevented it. In many instances the patient's livelihood has entirely depended on whether he could, or could not, be cured of his obsession.

In some instances the patient's obsessions interfered with the usefulness of others. For example, a lawyer's wife had the obsession that something dreadful would happen to her if she allowed her husband to be an instant out of her sight. She followed him everywhere, and even insisted upon going into court with him, and also remained in his office whenever he was there. I also know of several cases where the wives of medical men were almost insanely jealous of pregnant women, and tried everything in their power to prevent their husbands attending confinements; none of them showed abnormal jealousy in any other direction.

Prognosis.—Savage says: "As to the curability of these imperative ideas, I can only say that if they have existed for a year or more, I do not think there is any prospect of cure. If they are acute and associated with any special cause, or if they are associated with a period of life, such as adolescence or the menopause, there is some slight hope. Few of these cases need to be permanent inhabitants of asylums, in fact, many of them need never be there, if their friends can afford to keep them out of asylums."

This opinion was expressed in 1895, before Savage was acquainted with the results obtained by myself and others from suggestive treatment.

In no class of functional nervous disorder have I had better results than in the treatment of obsessions. In every instance where the malady has been of recent origin the recovery has been rapid and complete. Undoubtedly my percentage of recoveries would have been higher had it

OBSESSIONS

not been that, in most instances, the patients had been suffering for many years before they consulted me. In one case, recently sent to me by Dr. Risien Russell, the patient, aged 84, had been unable to cross a road without assistance for sixty-four years. During this time he had had varied treatment, including "dietary," under the late Sir Andrew Clark. After talking the matter over with me, he not unnaturally concluded that it was rather late in the day to begin anything fresh.

Prevention.—This is rapidly becoming the age of preventive medicine. The bacilli of different diseases are being discovered, and knowledge is being gained, in reference to their origin and development, which is daily becoming of more value in the prevention of disease. But how are we to prevent the entrance of a morbid idea into some sensitive nature at the psychological moment? This can only be done by gaining a clearer insight into the mental condition of nervous children, and by taking measures to develop their control of emotional states.

Most children have suffered at one time or another from obsessions. This, as a popular writer has justly remarked, appears to arise from an exalted sense of the importance of what they say and do, and also from an exaggerated fear regarding the notice taken of them by others. He says: "How miserable we make ourselves over some silly remark we have made. Some of us even keep a little store of foolish things we have said or done at various times-and take them out occasionally and blush over them. As a child, I blushed for years at the thought of having piped out a response in church in the wrong place, before the clergyman's turn was over. I felt as if the whole congregation turned and gazed at me with scornful ridicule. As I walked away, I was sure that everyone who glanced at me was thinking, 'There goes the child who made that extraordinary squeak in church.""

Few people seem to recognise the vividness of imagina-

tion in childhood and the sensitiveness to criticism. Many parents frankly discuss their children's failings with others in their children's presence, and in this way a morbid selfconsciousness is often developed which is never lost in after-life and entails endless misery.

A faulty religious training often plays an important part in the development of these morbid mental states. One of my patients, when a small boy, was taught to examine his conscience when he ought to have been playing marbles, and thus acquired habits of self-analysis and introspection which practically ruined his life. In another case, a sensitive child was constantly frightened by his parents' talk of Hell, the Day of Judgment, and the approaching End of the World-the latter event, especially, being made forcible and convincing by the quotation of various prophetic utterances, and the production of weird diagrams, which apparently put its early arrival quite out of doubt. This same boy's parents had dismissed a servant for telling him ghost stories, but were quite incapable of seeing that the terrifying pictures they themselves drew would seriously influence for evil the child's future.

Another way in which parents frequently injure their children is by undermining the child's confidence in himself. If they think the child is conceited, they will carefully point out to him how mistaken he is in reference to his supposed powers; and this, in more than one instance that has come under my notice, has led to morbid lack of confidence in after-life, and even to the obsessional idea that the patient was making a fool of himself in every business interview, and that this was noticed by everyone he came in contact with.

As a boy, I remember being amused at the story of the old Scotchman who was said to have prayed: "Lord send me a good conceit of myself." Now, I recognise the true philosophy of it, for those who are sensitive and proud are self-conscious and suffer in consequence, while the only truly happy ones are the conceited. They are always self-satisfied, always confident, never self-conscious and never troubled by doubts.

As a whole, children at the present day are much better treated than they were in Elliotson's time, but what he said about them might still be read with profit. According to him, their faults resulted from bad management, and could be corrected by good example and advice. Dulness and crossness were often the result of over-fatigue, and the poor child was punished when he ought really to have been sent to bed. Many little things made us cross, but no allowance was made for the young. Convulsions sometimes arose from overwork, and terror was no uncommon cause of nervous affections, but these maladies were often not recognised, and were punished as obstinate faults. St. Vitus's dance, local twitchings and the like, were often supposed to be due to bad habits or obstinacy. Momentary fits of epileptic unconsciousness, little paroxysms of insanity, causing absurdity or anger for a few minutes, were frequently mistaken for bad conduct, and the child was punished accordingly.

In recent years, the importance of medical examination of school children has become more and more recognised. This ought not, however, to be from the physical side alone: the mental side is equally important, and slight deviations from the normal, which might easily be corrected at an early age, may show themselves sometimes in afterlife as obsessions, or mental disturbances of a like nature. Fear and self-analysis are the things, above all others, most likely to be mentally hurtful to a child.

CHAPTER V

MEDICAL CASES (Continued)

Neurasthenia—Muscular Spasm, Catalepsy, etc.—Menstrual Cases —Insomnia—Sea-Sickness—Pruritus Vulvæ and Eczema— Hyperhidrosis

NEURASTHENIA

No. 51. Mrs. ----, aged 41; March 20th, 1892. Had always been more or less delicate. Obstinate constipation since infancy; this had been worse during the last twelve years, the minimum interval between successive actions of the bowels being a week. Chronic dyspepsia, anæmia and emaciation. Severe dysmenorrhœa since commencement of menstruation. Married twenty years ; no children, sexual desire absent, marked dyspareunia. Frequent attacks of depression since 1882; for two years the condition had practically been one of melancholia, and she had shunned all society, neglected her domestic duties, and frequently shut herself alone in her bedroom for hours and spent her time in crying. Insomnia since 1889. Sick-headache since childhood: for the last twelve years these attacks had been more frequent and severe, and latterly had averaged one a day-invariably followed by vomiting. As long as she could remember, she had been short-sighted; and reading or working, especially by artificial light, soon produced headache.

On December 9th, 1889, I sent her to see the late Mr. Bendelack Hewetson (ophthalmic surgeon to the Leeds Infirmary), who afterwards supplied me with the following notes :— "Mrs. —— complained of distressing and almost constant headaches, with frequent nerve-storms of migraine. She had persistent pain over the eyes and at the back of the head, extending down the neck; the roots of the hair were tender. She read 'Snellen's' $\frac{2}{50}$ with the right eye, and $\frac{2}{70}$ with the left unaided, but required a $-\frac{1}{50}$ to enable her to read $\frac{20}{20}$ with either eye. Ophthalmoscopic examination showed that she was hypermetropic, and that this condition was over-corrected by ciliary spasm, rendering her virtually myopic and necessitating a minus glass."

Mr. Hewetson prescribed atropine for a month, and afterwards a $+\frac{1}{40}$ glass for reading. The headaches ceased while the atropine was used, but the patient said the glasses hurt her, and would not persevere with them, and the headaches soon returned with increased violence.

She suffered greatly from her teeth, of which she had but twelve left, all decayed. She was anxious to have them extracted, but was afraid to face a dentist, and asked me to have the operation performed during hypnotic anæsthesia. I explained that patients who were suffering from hysteria rarely became hypnotised deeply enough for operative purposes, and tried to persuade her to take an ordinary anæsthetic. As she refused to do this, I consented to the experiment. To my surprise, before I had finished my usual preliminary explanations, profound hypnosis appeared. The patient had hypnotised herself. I then suggested that she should sleep well, be free from headache and depression; that her appetite and digestion should be good, the bowels regular, etc., etc. I also successfully suggested local and general anæsthesia. The curative suggestions were quickly responded to : she slept well, her headaches disappeared, the bowels acted regularly. Menstruation and connection became painless, digestion and appetite improved, and she rapidly gained in weight and strength.

The toothache entirely disappeared; and, owing to this and other reasons, she deferred the operation for some

time. Meanwhile, I discovered that I could produce profound anæsthesia, or analgesia alone, by simple suggestion in the apparently normal waking state. On these occasions the patient recognised and talked with those around her, and afterwards remembered everything that had happened, except the sensations which had been specially inhibited.

The operation was performed on July 21st, 1892, at Mr. Bendelack Hewetson's, Leeds, in the presence of a number of medical men, including Mr. H. Littlewood, F.R.C.S. The following account was given by Mr. Henderson Nicol, L.D.S. Eng., the numbers quoted showing the teeth extracted, according to Dr. Thompson's "Approved Record Plate":—

"Nos. 21, 22, 24, 25 and 26 were removed without any interval, and entirely without pain, or any symptom of feeling on the part of the patient. After an interval of a few minutes for rinsing out her mouth, Nos. 27 and 1 were removed without interval, and with some slight indication of pain in the case of No. 1, but none in the case of No. 27, which, in common with Nos. 21 and 22, was very firmly attached to the jaw. After a further interval of a few seconds, No. 16 was removed; it was much broken down, and there were symptoms of some pain. All the teeth were much diseased, and the extractions, under ordinary conditions, would have caused acute pain. I think, considering the circumstances under which the operation was done, it was a remarkable success, and I am pleased to have seen it."

Remarks. — The patient was not prepared in any way for the operation, and the analgesia was not posthypnotic, *i.e.* it was not suggested to her during a previous hypnosis that pain should be absent on this particular occasion. Without the employment of any mechanical methods, or verbal suggestion of hypnosis, she was simply told in the waking state that the operation would be painless. This was regarded as an experiment which might possibly fail, and the patient made me promise that I would hypnotise her if she had pain. She lost much blood and felt faint, but this soon passed off, and she gave the following account of her sensations :—She had felt a little pain when No. 1 was extracted, but this was nothing to what she had felt when she had had teeth drawn previously, and not sufficient to make her remind me of my promise to hypnotise her. She had had the fixed idea that this tooth would hurt her, a previous attempt to extract it having failed. She described the various steps of the operation, and asserted that all the extractions, except No. 1, were absolutely painless. The analgesia was still further tested by a powerful application of the faradic brush.

A few days later, under the same conditions, I extracted her remaining four teeth, and, despite the fact that they were all firmly attached to the jaw, this was accomplished without pain. Neither operation was followed by pain, and the gums healed rapidly; when the casts of the mouth were taken, all unpleasant sensations were prevented by suggestion.

It is to be noted that, in this case, analgesia alone was suggested, and that this appeared unaccompanied by anæsthesia.

Afterwards Mr. Bendelack Hewetson saw the patient several times, and gave me the following notes :---

"Dr. Bramwell brought Mrs. —— to see me in July, 1892. She stated that she had had no headache since being hypnotised on March 20th, 1892. She was a new creature mentally and physically—bright, healthy-looking and well-nourished; formerly she had been a burden to herself and her friends. On examination, I found her vision in every way as defective as on the first occasion I had seen her. Dr. Bramwell then suggested to her, in what was apparently the normal waking state, that she should be able to read the bottom line of 'Snellen's' unaided by glasses. This she did successfully, and immediately

afterwards repeated the feat on a changed series of test types. Obviously Dr. Bramwell could induce his patient to relax her accommodation and produce the same improvement of vision as had resulted from a minus glass. Dr. Bramwell then suggested that the increased range of vision should be maintained, and that the patient should continue to be able to read 'Snellen's ' $\frac{20}{20}$ unaided.

"I saw her again on October 26th, 1892, when she stated that she had remained entirely free from headache, and that the increased range of vision had been maintained. I found that Dr. Bramwell, by suggestion in the apparently normal waking state, could enable the patient to reproduce the ciliary spasm and the original condition of vision, and again to relax the accommodation and gain the increased visual range."

Mrs. — had invariably suffered from sea-sickness, even on the shortest voyage and in the calmest weather. This had been a great disadvantage to her, as her husband was captain of a merchant steamer and often wished to take her with him. In April, 1892, I suggested during hypnosis that she should be free from sea-sickness. Before the end of the summer she made eight voyages between the Humber and London; her husband reported that on the first outward voyage there was a strong north-east swell. Returning, the weather was rough and the steamer, which was in ballast, rolled heavily. Bad weather was also encountered on some of the other trips, but the patient had not even the slightest feeling of nausea and ate hearty meals.

No. 52. Mr. —, aged 32; May, 1895. Although nervous and highly strung, he had been physically strong and athletic up to 1887, when he broke down, apparently from overwork and underfeeding. His appetite became capricious, and he suffered from constipation, dyspepsia, nervous trembling, and persistent feelings of lassitude and weariness. The slightest physical exertion, such as walking a quarter of a mile, produced feelings of collapse and utter exhaustion. He was constantly depressed, and wished to end his life according to his own account, nothing but want of pluck prevented his committing suicide. He gave up smoking, dieted himself strictly, tried change of air, sea voyages, and prolonged medical hydropathic treatment, without benefit.

He was first treated in May, 1895: this was repeated almost daily for six weeks, when his morbid symptoms had disappeared. He had gained eight pounds in weight and enjoyed exercise. In September, 1900, he stated that he had practically perfect health, that he frequently bicycled over a hundred miles a day without undue fatigue, and sometimes danced the greater part of the night and was fresh for his office next morning. There had been no return of any of the symptoms which had formerly troubled him. In December, 1902, Dr. Eric Pritchard, of Hampstead, who had sent the case to me, informed me that the patient was still in good health, although he had been living in the tropics for some considerable time. Later reports satisfactory.

No. 53. Mr. —, aged 29, was sent to me by Dr. Risien Russell, on May 21st, 1908. Four years previously the patient had begun to sleep badly and to have frequent attacks of depression. His condition became progressively worse, and, when I saw him, he was very emotional and wept while he told me his troubles. He had been engaged to be married, but had broken this off, as the idea of making any change in his life filled him with terror. He was always profoundly depressed, and constantly talking about his troubles and symptoms. He had lost interest in everything and felt that he must commit suicide. He recovered, and later reports are entirely satisfactory. In February, 1909, he wrote to say that he was "perfectly well and happy and keenly interested in everything and everybody." His engagement has been resumed, and he is looking forward to being married.

No. 54. Mrs. ——, aged 51; September 30th, 1903. For two years she had been profoundly depressed, had lost all

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interest in life, and felt that death would be a relief. Indigestion, marked emaciation, etc. Since early childhood she had suffered from muscular tremor in the arms and hands. She was unable to pass things at table, and, when in company, was often unable to lift a cup or glass to her lips. Owing to this, she would often do without wine, tea or coffee. Eight months previously she began to have noises in the head. These soon became constant, frequently caused insomnia, and were associated with great mental distress.

The patient had been married twice and had recently lost her second husband. She began to have the delusion that her first husband's name appeared on her visiting cards. She tried to reason herself out of this, but the obsession returned every time she made a call. She would draw a card out of her case without looking at it, hand it to the servant, and then shake with terror. She had consulted various physicians and surgeons, more especially in reference to the noises in the head, but had obtained no relief and was finally told that the condition was incurable. After the first treatment by suggestion, the tinnitus aurium ceased; it returned slightly at the periods, but disappeared completely two months later. The muscular tremor and the obsession disappeared after the third treatment. The patient rapidly put on flesh, gained in strength, and all the other nervous symptoms quickly passed away. Since then, up to the present date (May, 1909), there has been no relapse. The patient is well mentally and physically, and enjoys life keenly.

During treatment the patient never passed into any condition even superficially resembling sleep.

MUSCULAR SPASM, CATALEPSY, ETC.

No. 55. Miss ——, aged 26; July 3rd, 1900. Although always nervous and never very strong, she had fair health up to 1897, when, after a severe mental shock—her brother was accidentally killed before her eyes—she began to have muscular spasms in the arms. These soon spread to the legs, and, a few weeks later, practically all the voluntary muscles of the body became affected, the movements hardly ceasing a minute while the patient was awake. The attacks were very irregular in character: at one moment the flexors and extensors of the arm were affected, when the patient struck out with startling rapidity, hitting those near her, or any inanimate object that happened to be within reach of the blow. A moment afterwards the legs would be similarly affected; the head violently jerked, or the muscles of the face convulsively twitched. She was cut and bruised from her involuntary violence, complained greatly of headache, and was anæmic and feeble. She could not walk without assistance, and was unable to dress or feed herself. Attacks of muscular spasm frequently occurred during sleep and invariably woke her.

The patient was sent to me by Dr. Bold Williams, of Llandudno, on the date mentioned. Hypnosis was induced at the first attempt, and she began to improve; but a week later, although the hypnosis had become profound, the attacks still continued. For a few minutes she would rest quietly as if asleep, and then convulsive movements appeared : slight ones did not arouse her, but if they were severe she came out of the hypnotic state with a start and looked confused. When this happened I re-hypnotised her, repeating the process until she had had at least half an hour's continuous rest. At the end of three weeks the attacks ceased and treatment. was abandoned. She walked and slept well, had no difficulty in dressing or feeding herself, and her general health had greatly improved. On May 18th, 1909, Miss ---wrote to say that another brother had been killed accidentally. She was the first to receive the tragic news, and had to break it to her mother, who died shortly afterwards. Despite this, "her health was splendid and she had had no return of the spasms."

No. 56. Mr. ——, aged 39; May, 1902. Had done G

twelve years' service in the Royal Navy. All entries "very good," no bad marks; good service medal. In June, 1893, he was ship's corporal on H.M.S. Victoria, under Admiral Tryon, when she was rammed by the Camperdown. When the ship was sinking it became his duty to go below and release the prisoners. This he did, then went down to the battery-deck to see if the ports were closed ; while there, the ship sank and carried him with her, and he believed the subsequent explosion blew him to the surface. He was picked up unconscious by one of the boats and taken on board H.M.S. Nile. After prolonged artificial respiration he had an attack of noisy delirium, followed by seventeen hours' further unconsciousness. Immediately afterwards violent generalised muscular tremor appeared. This was constant, except during sleep, and was aggravated if anyone approached him. He could do nothing for himself, and had to be fed through a bent tube which was passed from the back of his head to his mouth. The attendant, who had to stand behind so as not to be seen, poured liquid nourishment into one end of the tube, while the patient, with much difficulty, took it from the other end.

Three days later he entered Malta Hospital, where he stayed a month. He was then sent to the Naval Hospital at Haslar, and remained there until October 3rd, 1893, when he was invalided and sent home. During the first year after his accident he was stated to have had four "epileptic fits," but, from the description I have been able to obtain, it seems probable that these were attacks of catalepsy. Marked muscular tremor continued for a year, then gradually became less violent, and, finally, almost ceased. The most striking and persistent feature in the case was the difficulty in walking. This showed itself from the beginning: at first the patient could walk a step or two alone, but, if anyone came near him, he suddenly fell on his back. After his dismissal from the hospital this symptom became more pronounced, and he only left his bed to be helped into a chair. He could stand, however, and move about a little by holding the chair and pushing it in front of him. After being kept on as invalided from year to year for four years, he was finally pensioned off as incurable.

On May 8th, 1902, he was sent to me by Dr. Roome, of Southsea. The patient told me that he had never known what sickness was until his accident. He now complained of nothing but his inability to walk : his general health was excellent and he never felt ill or depressed. He was powerfully built and strong in the arms, but the muscles of the lower extremities were markedly wasted and flabby, and the pulse weak. Reflexes much exaggerated : the slightest touch over the patella produced a violent convulsive kick. Further, any muscular stimulus, particularly if unexpected, produced an immediate response. For example, if his foot touched an inequality in the bedclothes, he would be almost thrown out of bed by the violence of the muscular start.

His walking was still limited to moving a little about his room, with the aid of a chair; if he tried anything beyond this he fell. At first the exciting cause was mainly emotional, such as anyone coming near him. Later, he fell if he attempted to walk with the help of another person : if he encountered the slightest inequality in the ground he tumbled and dragged his companion with him. This did not occur because his legs failed him, but always seemed due to a distorted or exaggerated reflex. The slightest unexpected stimulus to the soles of the feet was followed by a convulsive response which threw him rigidly and violently on the back of his head. Beyond this I could discover nothing abnormal. There was neither paralysis nor loss of consciousness, nor were there alterations in sensation other than those just described.

I began treatment at once, and continued it five times a week until July 24th, when the patient returned to Portsmouth. Nothing was done beyond making

"curative suggestions" while he rested quietly in an armchair; he never even became drowsy. Despite this, the result was striking. In a week, he could cross his room; and, after the first month, he spent hours at a time walking about the streets and parks. He even went into crowds without fear or tremor, and was present at the various military reviews, etc., which were held at that time.

It is of interest to note that, although the patient responded to suggestion in this instance, ordinary medical treatment associated with self-suggestion had entirely failed. He had had the fixed idea that a certain medical man could cure him, and, as soon as he left the hospital, had placed himself under his care, but, despite his faith, had received no benefit. From that date he had been almost invariably under treatment, and had consulted in all nineteen different medical men.

No. 57. Miss ——, aged 28, dressmaker, was admitted to the National Hospital, Queen Square, August 5th, 1896 (Sir William Gowers' wards), and I am indebted to Dr. Stewart, House Physician, for the following notes :—

"For the last ten years the patient had suffered from sickness after food, and pain in the abdomen. Used to spit up blood in small quantities; but no cough, wasting, or night sweats. Said she had coffee-grounds vomit followed by tarry motions. Since January, 1896, she had also had pain in back and attacks of stiffness.

"On admission—a well-nourished but pale, anæmic girl. Intelligent. No motor or sensory paralysis. No anæsthesia. Organic reflexes normal—plantars present, erector spinæ increased ; jaw, biceps, and wrist jerks present; uo ankle clonus. Cranial nerves normal. Some ovarian and epigastric tenderness. Chest normal. Visual fields, pupils and discs normal. Has had attacks of rigidity; several a day, sometimes lasting twelve hours. These come on suddenly, painlessly, and without warning. Spasm first affects legs and feet. Legs become stiff, knees extended;

MUSCULAR SPASM—CATALEPSY

ankles extended and toes stiffly flexed. Spasm is most marked in extensor and adductor muscles of leg; but all muscles are rigid. Pulling on one foot pulls the other over too, as if glued to it. When trunk becomes rigid, the whole body is like a bar of iron and can be lifted up by one foot. Abdominal muscles hard; respiration shallow, and back muscles rigid. When the arms are affected, they are stiffly extended parallel to the body; the fingers flexed at metacarpo-phalangeal joints, but extended at others; the thumbs adducted and wrists stiffly flexed. Face sometimes stiff, jaws firmly clenched and unable to be separated; speech impossible; no risus sardonicus, expression impassive. Eyes not affected. Neck stiff and extended.

"November 23rd, 1896. Numerous observations have shown that there are two hysterogenetic spots—(1) interscapular region of spine; (2) lumbar spine: pressure on these induces an attack. Attacks can be relieved by application of faradic brush to external malleoli in turn; first one leg and then the other becoming relaxed. The duration of the attack varies from a few minutes to several hours; afterwards the patient perspires a great deal about the hands and feet, and feels tired. After a severe attack, when the face has been involved, she usually vomits also.

"December 8th, 1896. Patient has had several attacks of urgent vomiting, apparently causeless, with severe pain, necessitating rectal feeding by peptonised enemata.

"January 20th, 1897. Patient has been getting steadily worse; attacks have increased in frequency and severity; she is rigid nearly all day and occasionally wakes up rigid during the night.

"Yesterday, I [Dr. Stewart] induced stiffness of legs experimentally by rubbing lumbar region, and stiffness of shoulders and arms by rubbing interscapular region. Patient lay with trunk, legs and thighs rigidly extended; toes pointed and arms parallel to body. She could be lifted by head and heels like a log. The face was rigid; and she

could neither speak, smile, protrude her tongue, nor move her facial muscles. The eyes, however, could be moved freely in all directions, and the eyelids could be opened and closed. Temperature before, during and after this attack was $98 \cdot 2^{\circ}$. Rigidity of arms, neck and face passed off when hands were rubbed, but that of the trunk and lower extremities required application of faradic brush to external malleoli one after the other.

"On January 26th Dr. Bramwell saw the patient and commenced hypnotic treatment."

On March 4th Dr. Stewart, in forwarding me the above notes, congratulated me on the result, which he said had been very satisfactory.

Remarks.—I saw the patient on sixteen occasions from January 26th to March 4th, 1897. At first I visited her at the hospital: she was suspicious and evidently dreaded some disagreeable experiment, and I failed to influence her; despite the fact that, on several occasions, suggestions were made during chloroform narcosis. Later, she was brought regularly to my house, where I showed her other patients who had been treated by suggestion, and thus gained her confidence. From that time she improved rapidly, and, before the treatment ceased, the attacks had disappeared. Her recovery was confirmed by a later report.

MENSTRUAL CASES

No. 58. Mrs. ——, aged 25; February, 1894. Had always been nervous and emotional; when a child, any excitement caused vomiting. Attacks of migraine since the age of 8; latterly, these had been very frequent, and accompanied by feelings of giddiness and confusion. Catamenia appeared at 15; slight dysmenorrhœa. Married at 19; the succeeding period, an exceedingly painful one, was followed by pregnancy. After the periods recommenced they were regular, but invariably preceded by much uneasiness, and accompanied by attacks of severe spasmodic pain in the lower part of the body and back. These lasted from one to three days, and the patient, who kept her bed, was unable to lie down during the paroxysms, and had to get on her hands and knees; maintaining this position almost continuously for the first twenty-four hours. There was constant nausea with occasional vomiting. Discharge scanty. Uterus retroflexed; slight leucorrhœa, Depression, frequent attacks of hysterical weeping. Dyspareunia; no sexual desire.

After drugging, pessaries and other local treatment had been tried without result, the patient was sent to me by Mrs. Dickinson Berry, M.D.

She was treated twenty-nine times up to May 5th, 1894, when the morbid symptoms had disappeared. In April, 1895, she reported that the periods were free from pain, lasted three days, instead of five as formerly, and that the discharge was more abundant. The interval was now four weeks instead of three. Marital relations were normal. About a year later, the patient wrote to say that she had again become pregnant and that the periods had been normal up to then.

No. 59. Miss ——, aged 19; November, 1889. Was markedly anæmic, and had suffered from attacks of frontal headache since the age of 7; these averaged two a week and were invariably followed by vomiting. Menstruation, always painful, commenced at 13. Early in 1887 the periods began to be scanty, with prolonged but irregular intervals, and ceased in May, 1888. After a short hypnotic treatment in November, 1889, somnambulism with anæsthesia was induced. In February, 1890, her health was remarkably good, with the exception that the amenorrhœa still persisted. I re-hypnotised her, and suggested that on March 13th, 1890, she should experience all the symptoms which had formerly preceded menstruation—pain in the back and thighs, sensation of weight and dragging

in the abdomen, etc.; that these should last two hours; that the catamenia were then to appear and all pain cease. During the six weeks which preceded the date fixed, I hypnotised the patient two or three times a week, and repeated the above suggestions. On the morning of March 13th the symptoms indicated appeared, continued for two hours, and were followed by menstruation, which lasted five days. During the next fortnight I hypnotised her on three occasions, and suggested that menstruation should appear on April 7th, and on this and subsequent occasions be free from pain. After this, menstruation was normal for over two years; the patient then married and became pregnant. She had no return of the headache and her general health remained good.

This patient was operated on for double strabismus by Mr. Bendelack Hewetson, of Leeds, November 4th, 1889; hypnotic suggestion being the only anæsthetic employed. She obeyed all his commands; kept her eyes in the required position, or turned them so as to put the muscular fibres on the stretch. Anæsthesia was perfect; when awakened she would not believe that the operation had been performed, until shown her eyes in a looking-glass. There was no subsequent pain.

No. 60. Mrs. ——, aged 34; December, 1901. Nervous temperament. Amenorrhœa since the birth of her last child, two years previously. She was only able to suckle the child two days, owing to the scanty secretion of milk. Later it increased, but was never enough for nursing purposes; it persisted, however, despite both external and internal treatment. In September, 1901, she had an attack of inflammation of the breast with threatened abscess; a month later there was a similar one; and again, a month after, another attack.

The patient was sent to me by Dr. Swan, of Devonport Street, W., on December 31st, 1901, and was treated on fifteen occasions from that date until March 6th, 1902. The secretion of milk ceased and there was no return of the mammary inflammation. Menstruation appeared on January 21st, 1902, and was regular from then until pregnancy occurred some months later.

and anæmic, miserable and depressed. Weight 8st. 7lbs. Menstruation commenced at 14, and was always very painful. Pain sometimes started a week before and lasted three or four days after the commencement of the period; always three or four days in bed. Frequent vomiting. Insomnia for the last three years; worse the last year-average amount of sleep three hours. Very frequent headaches, sometimes accompanied by sickness. Patient had a good night after the first treatment. At the end of five weeks she was well and had gained 7lbs. in weight. Headaches had disappeared. Periods became normal, with exactly four weeks' interval between them, instead of about a fortnight. After treatment there was no warning before the appearance of the period. Recovery confirmed by later reports.

sent to me by Dr. Roe, of Penryn. She was feeble, badly nourished and markedly neurotic. She had never been strong and had had frequent attacks of eczema. Six years previously she had herpes zoster, and since then had suffered from intercostal neuralgia and rheumatism. Constipation during the last four years. Very nervous, irritable and intolerant of noise. She had always slept badly, and since a severe attack of influenza in January, 1892, the insomnia had been much worse. To relieve this she took bromides and other drugs for six months without benefit. She often remained awake until 5 a.m. and then only slept for an hour or two. Menstruation began at 13, and since then she had always suffered from dysmenorrhœa and menorrhagia. Severe pain started just before the period and lasted all the time, usually six days. Frequent

attacks of vomiting during the period, and loss of appetite.

After the first treatment on April 15th the patient slept that night, from the moment she laid her head upon the pillow until she was called in the morning; this had never happened before in her whole life. Treatment was repeated on April 17th and 18th, but not again.

The patient called to report herself a year later: she had gained greatly in weight, slept well, was free from rheumatism and constipation. Menstruation had been normal in amount and painless, and all morbid nervous symptoms had disappeared. Her recovery is confirmed by a recent report—March, 1909.

INSOMNIA

The following case presents many points of interest. The patient, who describes his own condition, is a trained observer, well known by his contributions to more than one department of natural science. He was originally sent to me by Dr. Boulting, of Hampstead. The results obtained by the patient's self suggestion are worthy of note, particularly considering the slight amount of treatment he had. It is to be noted too that I did not teach him to practise self-suggestion.

No. 63. "A professional man, aged 51; subject to migraine, heavy smoker, very abstemious in use of alcohol.

"Having suffered from sleeplessness and other nervous symptoms, I sought Dr. Bramwell's aid at Easter, 1900.

"I had tried various systems of counting myself to sleep, and each in turn, as it became familiar and easy, had lost its effect. Dr. Bramwell asked me to sit down and compose myself to sleep in my usual way, and to pay as little attention as possible to him. His procedure was that which I understand he usually adopts; and during the sittings I tried to get drowsy by using my most recent method of counting (synchronous with respiration). I had three sittings, and during the second alone was I at all somnolent, and that very little. The following has been the result of the treatment :—

"(1) My sleeplessness has been completely removed, and my sleep has been more continuous and more restful than before. I have even slept when new business cares of a most acute kind presented themselves suddenly a quarter of an hour before bedtime.

"(2) Further, I have been able to influence myself in various ways by suggestion, which I employ in the following manner. I count, as I formerly did, when trying to get to sleep, and alternate this with self-suggestions. What I aim at is to produce a stage in which I am sleepy enough to be suggestible, and yet sufficiently awake to make suggestions to myself.

"The method is least efficacious when I go to bed sleepy. I then find it difficult to count, sometimes even impossible, a drowsy state intervening. A vigorous effort, however, to wake up completely and count afresh is usually successful.

"(3) I have been able to induce analgesia and sleep during toothache, whether the latter arose from periostitis or from inflamed pulp: in these cases the pain goes a few minutes *before* sleep. I suggest that 'I shall sleep well and without pain.' Sometimes the pain comes on again and wakes me, but a few more suggestions will induce fresh analgesia and sleep. Similarly, being subject to sea-sickness, I send myself to sleep on embarkation without much difficulty, and sleep usually very lightly, quite free from qualms: on awaking, even in rough water, I feel no tendency to sickness. I have had two failures to send myself to sleep on the boat, by suggestion, out of some twenty passages; the one was due to flies which kept alighting on my face; the other instance was when I was convalescent from influenza, and I attribute it to my own lack of power as operator.

"(4) Post-hypnotic suggestion has on the whole failed.

I think that I have sometimes succeeded in relieving constipation: I know that I have sometimes been unable to do so. I have failed, by suggestions going on every night for three weeks, to escape sea-sickness without going to sleep. I have not succeeded in curing migraine. I have, however, stopped or prevented the simple congestive headache of coryza. I have been also much less irritable during migraine fits, etc.

"I attribute my difficulty of post-hypnotic suggestion to the fact that here the operator is the subject, and that the former is less efficient at the time when the latter should be most impressionable.

"I am usually able next morning to remember at what stage of my 'count' I lost consciousness. This is generally almost sudden. However, the approach of sleep is usually preceded by hallucinations or idiotic questions which I all but hear, or by twitchings, or by a combination of these. My thought is almost verbal, auditive : I am a poor visualist. A moment of intense wakefulness now comes on, in which I *know*, from recollection of past experience, that I shall sleep very soon, improbable as it *feels*. Much more rare is the drowsy condition referred to above, which recalls the state of insomnic people, who 'have heard the clock strike every hour in the night,' but not a child wailing for half an hour in an adjoining room."

No. 64. Master ——, aged 16; April 24th, 1890. Had not had a good night's sleep since birth. There had been no break in the insomnia, but it had varied in intensity and had been worse since January, 1890. While in bed the patient recalled all the events of the day; he did not feel excited, ill or tired, but his brain remained abnormally active, and he lay awake till 4 or 5 a.m., when he would perhaps get two or three hours' sleep. Physical fatigue did not influence the insomnia, nor had this been relieved by various forms of medical treatment and prolonged travel. His education had been almost entirely

SEA-SICKNESS

aural, but one term at school had been tried, with disastrous results : he became absolutely sleepless and prostrate.

He was treated on April 24th, 1890, and slept well the following night. Treatment was repeated about forty times during the next two months, after which he started active mental and physical work. Since then there has been no relapse; and in 1900, Dr. Oliver, of Harrogate, who had originally sent the patient to me, reported that he was then leading a useful, active and successful life.

SEA-SICKNESS

No. 65. Miss —, aged 19; September, 1891. Had good health, but the shortest voyage produced violent and even dangerous sea-sickness. She was easily influenced at the first attempt, and curative suggestions were given. During the following year the patient crossed the Channel several times without being sick. The treatment was then repeated, as she wished to go to India. During the voyage a cyclone was encountered, and she alone amongst the passengers remained well. The return journey was equally successful, and further voyages to and from India were also free from sickness.

No. 66. Dr. —— consulted me for sea-sickness on May 5th, 1908, and had only three treatments. He was a very bad sailor and had been sick on every voyage he had taken, no matter how short. Shortly after treatment he went to Canada, and sent me the following account of his voyage :—"The result of the suggestive treatment for seasickness in my case has been excellent. The first three days of the voyage were rough, the third day very rough; fiddles on all the tables. I was not sick, and felt very well all the time, except once after lunch on the third day. I then lay down in the smoking-room, gave myself sleep suggestions and anti-sea-sickness suggestions: I was soon asleep, and woke in a couple of hours feeling quite well; had no discomfort again during the voyage. I put in an appearance

at every meal during the voyage, with appetite. There were many people ill on board; at breakfast on the third day very few were present."

SKIN DISEASES

No. 67. Pruritus vulvæ and eczema.--Mrs. ---, aged 49; August, 1889. Had always been nervous and emotional. Three of her children had died of infantile convulsions; one suffered from epilepsy and two from hysteria. At an earlier date the patient had had several attacks of pelvic inflammation, associated with endometritis and menorrhagia: the latter diseases, after lasting five years, yielded to treatment in 1883. The menopause soon followed, and the patient had good health for two years. In 1885 she began to suffer from pruritus vulvæ, and eczema of the hips and thighs. Irritation was always present, but at night it became intolerable and produced insomnia. She had long suffered from constipation : the bowels never acted without medicine, and rarely oftener than once a week. The uterus was retroflexed, and bound down by adhesions resulting from the former pelvic inflammation.

For four years I treated the patient with drugs and local applications under the supervision of a skin specialist, but without improvement. I then sent her to Mr. Mayo Robson, who thought the uterine displacement and chronic constipation interfered with the rectal circulation, and played an important part in the origin and maintenance of the disease. He stretched the sphincter ani under ether, but this neither cured the constipation nor relieved the other symptoms.

In August, 1889, I tried to hypnotise the patient, other treatment being abandoned. The attempt failed, and was repeated unsuccessfully on sixty-six occasions during the next four months, her condition meanwhile growing steadily worse. At the sixty-eighth sitting, somnambulism was induced. All irritation vanished immediately, and she slept

soundly on that and the following nights. The bowels acted daily. In a fortnight all trace of eczema disappeared and treatment was abandoned. At the last report, three years later, there had been no return of any of the symptoms, and she had not required to take even a simple aperient. Case seen after recovery by Dr. Churton, of Leeds, and others.

No. 68. Hyperhidrosis.—Miss ——, aged 15, consulted me in January, 1890, on account of frequent attacks of migraine, accompanied by vomiting, from which she had suffered for three years. Menstruation normal. I noticed that on the back of the left forearm a patch of skin, about $2\frac{1}{2}$ inches long by $1\frac{1}{2}$ broad, was the seat of constant perspiration. This condition, which had existed from infancy, was always excessive, and invariably rendered more so by emotion or exertion. The forearm was always enveloped in bandages, but these rapidly became saturated, and then the perspiration dripped upon the floor. The patient was frequently punished at school because she soiled her needlework, and her condition distressed her greatly, as she wished to become a dressmaker.

On January 10th the patient was hypnotised for the first time, somnambulism induced, and suggestions given as to the headaches and hyperhidrosis. The following day the perspiration had markedly diminished, and it ceased entirely after the reinduction of hypnosis. Treatment was then abandoned. The case was shown at the International Congress of Experimental Psychology, London, August, 1892, and neither up to that date nor since, as far as I have been able to learn, had there been any return of either hyperhidrosis or migraine, and the patient was following the occupation of her choice.

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CHAPTER VI

MEDICAL CASES (Concluded)

Disappearance of Tremors and other Nervous Symptoms under Treatment by Suggestion—Experiments with the Time-Sense— Tabulated Results—Similar Experiments in another Case—The Question of Mal-observation or Deception—Various other Points of Interest—Further Experiments—Time-Appreciation Unassociated with Suggestion—Experiences of Dr. George Savage and Professor Marcus Hartog—Automatic Writing in Hypnosis

EXPERIMENTAL CASES

THE following cases, though interesting medically, are cited chiefly on account of the experiments about to be recorded.

No. 69. Miss A-, aged 19, was sent to me by Dr. de Watteville for hypnotic treatment, on September 2nd, 1895. Her health had been fairly good up to twelve months previously, when violent muscular tremor of the right arm and hand commenced. After a few weeks this spread to the right leg, and then to the left arm and leg. The tremor ceased during sleep, but only then; while walking was always difficult and painful. There was almost constant diffused headache. During the last four months there had been frequent attacks of pain in the region of the heart. After the patient had looked at a bright object-especially anything blue-everything else appeared of that colour; this impression persisted for about an hour, while its disappearance was always sudden and accompanied by a feeling of faintness. Menstruation began at the age of 11 and was always painful, and there had been obstinate constipation from infancy. Her illness followed overexertion and mental strain, the result of nursing a relative who died. There had been no previous hysterical symptoms and the family history was good.

Treatment.—Electricity, massage, careful drugging and change of air.

Result .--- No improvement.

Treatment by suggestion.—This was begun on September 3rd, 1895, and repeated on the 4th, 5th, and 6th, when the tremor had almost entirely disappeared, From then to October 30th she was treated on seven occasions.

Result.—No tremor or other morbid symptoms. Bowels regular. Last period free from pain. Fourteen pounds gained in weight since beginning of treatment. No abnormal colour-perceptions. Returned to work.

Remarks.—After the seventh treatment, Miss A— reached the stage of somnambulism, *i.e.* she was unable in the normal state to recall the events of so-called hypnotic life. From that date she could at once be made analgesic or anæsthetic by suggestion; touching the cornea or tickling the back of the throat with a feather produced no reflex, and the passing of a needle deeply into the flesh was unattended by pain.

During treatment, suggestions had been made fixing the hour at which Miss A—— was to fall asleep at night, and the moment she was to awake in the morning. As these were remarkably successful, it occurred to me that she might prove a good subject for experiments similar to those of Delbœuf.¹ Miss A—— was an intelligent girl, who had received an ordinary School Board education, and her arithmetical powers were in keeping with this; she could do ordinary sums in multiplication and subtraction, with the aid of a pencil and paper, but failed, unless they were extremely simple, to do them mentally. She possessed

¹ See my "Hypnotism: its History, Practice and Theory," pages 116-119.

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no particular aptitude for appreciating the passage of time.

Experiment 1.—November 5th, 1895; time, 4 p.m. Suggestion (given during hypnosis): At the expiration of 5 hours and 20 minutes, Miss A—— was to make a cross on a piece of paper and write down the time she believed it to be, without looking at clock or watch.

Result.—The suggestion was carried out the minute it fell due.

Remarks.—On this occasion I did not say anything to Miss A ---- about the experiment, either before or after hypnosis, and, being a somnambule, she retained in her waking consciousness no recollection of the suggestion. I told her mother its nature, but not the time at which it should be fulfilled. At 9.15 the same evening her mother noticed that Miss A---- was restless, and asked her what was the matter. She replied, "I feel I must do something, but cannot tell what." At 9.20 p.m. she rapidly made a cross with a pencil and wrote "20 minutes past 9" on a piece of paper, at the same time saying, "It's all silliness." There was no clock in the room, but her mother went into the next room where there was one, and found that the time was 9.20. When I again saw Miss A--- I explained the nature of the experiments I proposed making, and instructed her to carry a pencil and paper during the day, and to put them by her bedside at night. I did not describe the experiments as anything extraordinary, but simply told her that hypnotised subjects were often able to appreciate time and that I wished to see whether she could do so. No pecuniary or other reward was promised or given. I told her I should make these suggestions from time to time, but not on each occasion she visited me. I neither told her in the waking condition that suggestions had been made, nor informed her relatives when I made them, nor what they were. They knew that suggestions of this nature were given frequently, but

only became acquainted with them by seeing Miss Λ — carry them out, or by hearing from her that she had done so. Before making the suggestions I wrote them down in my case-book, and, when Miss A—— again visited me, I copied into it what she had written on the different pieces of paper. In many instances I did not calculate when the suggestions fell due, and in others the calculations I made at the time were proved to be erroneous; the results of the experiments in these cases being only determined when the series was completed.

The experiments which followed were all of the same character, i.e. during hypnosis Miss A was told that, at the expiration of a certain number of minutes, she was to make a cross and write down the hour she believed it to be, without consulting the clock ; an interval of waking life always intervening between the suggestion and its fulfilment. I made my experiments simple and uniform in character because I knew that Delbœuf's subjects resisted suggestions that were distasteful to them. The idea of making a cross on a piece of paper excited no opposition in Miss A---'s mind, while the fact that she recorded in writing the time at which the suggestion was fulfilled, especially when this was witnessed by others, put me in possession of evidence of a certain value. The arithmetical problems involved in the first one or two of the following experiments were comparatively simple. In No. 3, for example, as Miss A- could easily tell when 24 hours fell due, the suggestion practically resolved itself into one to be fulfilled in 100 minutes. Soon, however, the experiments became complicated, and involved much more difficult problems in arithmetic.

Experiment 2. — November 28th, 1895; 2 p.m. Suggestion: to be fulfilled in 320m. Result: Correct. Remarks: The suggestion was carried out at 7.20 p.m., when the patient was in a friend's house. She had no watch with her, and the clock in the room was wrong.

Experiment 3.—December 4th; 3.15 p.m. Suggestion: in 24h. and 100m. Result: Correct. Remarks: When in a friend's house the following afternoon she carried out the suggestion at 4.55. She then asked the time. Her friend looked at her watch and told her, whereupon she remarked, "Your watch is three minutes fast." This was the case.

Experiment 4. — December 12th; 3.20 p.m. Suggestion: in 24h. 1,440m. Result: 3.20 p.m., Saturday, December 14th: Correct.

Experiment 5.—Wednesday, December 18th; 3.45 p.m. Suggestion: in 24h. 2,880m. Result: 3.45 p.m., Saturday, December 21st: Correct.

Experiment 6.—Tuesday, December 24th; 2.55 p.m. Suggestion: in 30h. 50m. Result: 9.45 p.m., Wednesday, December 25th: Correct.

Experiment 7.—Tuesday, December 24th ; 3.10 p.m. Suggestion : in 7,200m. Result: 3.10 p.m., Sunday, December 29th : Correct. Remarks : When No. 7 was fulfilled the patient was teaching a Sunday-school class ; suddenly she felt an impulse to make a cross and mark the time. It was only after doing so that she looked at the clock, which was behind her.

Experiment S.—Tuesday, December 31st; 3.45 p.m. Suggestion: in 4,335m. Result: 4 p.m., Friday, January 3rd, 1896: Correct.

Experiment 9.—December 31st, 1895; 4 p.m. Suggestion: in 11,525m. Result: 11.5 a.m., Wednesday, January 8th: Wrong. Remarks: The result ought to have been 4.5 p.m., January 8th. I re-hypnotised Miss A—— on that day and asked her to recall the suggestion I had made on December 31st. She said it was to be executed in 11,225m.; it is possible that I had made a mistake, but not at all likely, as I read the suggestion to her with the figures before my eyes. The supposed suggestion of 11,225m. had been carried out correctly.

I now attempted to find out during hypnosis the patient's mental condition in reference to these suggestions. In reply to my questions she informed me (1) that when the suggestions were made in hypnosis she did not calculate when they fell due; (2) that she did not calculate them at any time afterwards during hypnosis; (3) that she had no recollection of them when hypnosis terminated; (4) that no memory of them ever afterwards awoke in the waking state; (5) that shortly before their fulfilment she always experienced a motor impulse, *i.e.* her fingers moved as if to grasp a pencil and to perform the act of writing; (6) that this impulse was immediately followed by the idea of making a cross and writing certain figures; (7) that she never looked at clock or watch until after she had made her record.

Experiments.—Wednesday, January 8th, 1896.—No. 10: 4.5 p.m. *Suggestion*: in 4,417m.—No. 11: 4.5 p.m. *Suggestion*: in 11,470m.—No. 12: 4.30 p.m. *Suggestion*: in 10,070m.

As Miss A—— stated in hypnosis that she made no calculations, in order to vary the experiments I asked her, as soon as I made the suggestions and before terminating the hypnosis, to calculate when they would fall due and tell me the result She replied as follows: "No. 10, in 3d. 37m., or 23m. to 5 next Saturday afternoon.— No. 11, in 187h. 50m., or 7d. 9h. 50m.; next Wednesday morning at 5m. to 12.—No. 12, in 1,067h. 40m., or 6d. 23h. and 40m; 4.20 p.m. next Wednesday."

Miss A——'s calculation in No. 10 was 1h. 5m. too early. In No. 11, her calculation was 1d. 3h. 20m. too early. Here (1) 11,270 was taken instead of 11,470, and hence the interval was calculated to be 187h. 50m., equalling 7d. 19h. 50m.; (2) 7d. 9h. 50m. was given instead of 7d. 19h. 50m., and the time falling due was then calculated with this interval (7.19.50); but (3) a mistake of 1d. was made.

In No. 12 her result was correct, but did not correspond

with her calculation; 10,070m. equals 167h. 50m., not 1,067h. 40m. Here (1) a cipher was wrongly inserted and (2) 40m. miscalculated for 50. The latter error was repeated when 6d. 23h. 40m. was given instead of 6d. 23h. 50m.

Results.—No. 10, Saturday, January 11th, 5.42 p.m.: Correct.—No. 11, Thursday, January 16th, 3.15 p.m.: Correct.—No. 12, Wednesday, January 15th, 4.20 p.m.: Correct.

Remarks.-As the subject had wrongly calculated during hypnosis the time the suggestions fell due, I concluded that she had thus fixed these dates in her own mind and would carry out the experiments in accordance with them. My astonishment was great when they were executed correctly. I re-hypnotised Miss A ____, and said to her, "You did not carry out these suggestions at the hours you told me they would fall due. Why was this?" She replied, "What I told you was all wrong." "How do you know the other results are right?" "I can't tell you, I only feel that they are." Further questioning elicited no memory of the processes by which the original mistakes had been corrected. Miss A --- assured me that she had never thought of the suggestions from the time they were made; she simply fulfilled them in response to an impulse to write down the figures, and, while doing so, neither recalled her. calculations nor even the suggestions themselves.

When No. 12 was fulfilled Miss A_{---} had been hypnotised in my room for an hour and had had no opportunity of consulting the clock. Exactly at 4.20, without waking or opening her eyes, she said she had to make a cross and put down the time. This was preceded by the movement of the fingers already described. From that date I arranged that some of the experiments should fall due when Miss A_{---} visited me, but not, it is important to note, every time she came. They were fulfilled either in the normal waking state or in hypnosis, and Miss A_{---} recorded them herself in my case-book. I then at once

compared her figures with the actual time and entered the result, this being nearly always witnessed and signed by others. From that date several suggestions were made at each *séance*. In some cases the same hour was given as the starting-point of all the experiments; in others, varying and even imaginary ones were chosen. In the latter the subject was told the actual time, but ordered to carry out the experiment from, say, 2.15 p.m. of the previous day.

Experiments.—Wednesday, January 15th, 4.45 p.m. —No. 13, from 4.45 p.m. Suggestion : in 4,453 m.—No. 14, from 2 p.m. Suggestion : in 10,470m.—No. 15, from 2 p.m. Suggestion : in 10,060m.

At the time the suggestions were made the patient was again asked in hypnosis to calculate when they would fall due, and replied rapidly :— "No. 13, in 722h. and 33m., or 11.15 p.m. next Wednesday.—No. 14, in 197h. 30m., or 4.5 p.m. next Wednesday.—No. 15, in 8d. 5h. 30m., or 4.25 p.m. next Wednesday."

In No. 13, Miss A——'s calculation was 4d. 4h. 17m. too late; 4,453m. equals 74h. 13m., not 722h. 33m. Perhaps 4,453 was mistaken for 43,353, equalling 722h. 33m. The time of falling due had been calculated from the interval of No. 14.

In No. 14, her calculation was 4h. 25m. too early; 10,470m. equals 174h. 30m., not 197h. 30m. The time of falling due was also wrong. There is no explanation for either of these independent errors.

In No. 15, her calculation was 1h. 45m. too late. The wrongly calculated interval 8d. 5h. 30m. corresponded to the wrongly calculated 197h. 30m. of No. 14; this interval had apparently remained in the mind. The time of falling due had been calculated with 4.45 as initial time, as in No. 13, instead of 3.0.

Results.—No. 13, Saturday, January 18th, 6.58 p.m.: Correct.—No. 14, Wednesday, January 22nd, 8.30 p.m.:

Correct.—No. 15, Wednesday, January 22nd, 2.40 p.m.: Correct.

Remarks.—Again the subject's miscalculation did not affect the accuracy of her results, and questioning in hypnosis again failed to revive any memory of the processes by which these had been reached.

Experiments.—Wednesday, January 22nd, 4.5 p.m. —No. 16. Suggestion: in 20,180m.—No. 17. Suggestion: in 20,160m.—No. 18. Suggestion: in 20,140m.

Miss A——'s calculations in hypnosis: "No. 16, in 336h. 20m., or 13d. 20m.; Tuesday, February 4th, at 4.25 p.m.—No. 17, Tuesday, February 4th, at 4.5 p.m.—No. 18, Tuesday, February 4th, at 3.45 p.m."

In each instance these calculations were 1d. too early, but in No. 16, 20,180m. was correctly given as 336h. 20m.

Results.—No. 16, February 5th, 4.25 p.m.: Correct.— No. 17, February 5th, 4.5 p.m.: Correct.—No. 18, February 5th, 3.45 p.m.: Correct.

Remarks.—On Wednesday, February 5th, I hypnotised Miss A—— at 3 p.m. At 3.45, without passing from the hypnotic state, she made a cross and wrote down the correct time. I aroused her at four o'clock, and she carried out the remaining experiments correctly at 4.5 and at 4.25.

Experiments.—Wednesday, February 5th, 4 p.m.— No. 19. Suggestion: in 10,050m.—No. 20. Suggestion: in 10,080m.—No. 21. Suggestion: in 10,090m.—No. 22. Suggestion: in 840m.—No. 23. Suggestion: in 900m.

Miss A——'s calculations in hypnosis : "No. 19, Wednesday, February 12th, 3.30 p.m.—No. 20, Wednesday, February 12th, 4 p.m.—No. 21, Wednesday, February 12th, 4.10 p.m.—No. 22, Thursday, February 6th, 6 a m.—No. 23, Thursday, February 6th, 7 a m."

The above, made almost immediately, were correct in every instance.

Results.—No. 19, Wednesday, February 12th, 3.30 p.m.: Correct.—No. 20, Wednesday, February 12th, 4 p.m.: Correct.—No. 21, Wednesday, February 12th, 4.10 p.m.: Correct.—No. 22, Thursday, February 6th, 6 a.m. : Correct. —No. 23, Thursday, February 6th, 7 a.m. : Correct.

Remarks.—When Miss A——'s mother went to her bedroom on the morning of the 6th, she found her asleep, and two pieces of paper were on a table by the bedside. On each was a rough cross; on one the figure 6, on the other 7, both very badly written. Miss A—— said she had not awakened during the night.

The other suggestions were carried out during hypnosis in my room, the time being marked by Miss A—— in my notebook and witnessed by others.

The five suggestions were given rapidly one after the other. These, and similarly complicated ones, were never read to the subject more than twice, and sometimes only once.

I re-hypnotised Miss A — and questioned her about the suggestions which had been carried out during the night, presumably in natural sleep. She told me she remembered nothing about them; and afterwards, when suggestions were again carried out in natural sleep, her memory was equally at fault.

Experiments.—Wednesday, February 12th.—No. 24, 3.30 p.m. Suggestion: in 2,220m.—No. 25, 3.30 p.m. Suggestion: in 2,285m.—No. 26, 3 p.m. Suggestion: in 10,115m.—No. 27, 3 p.m. Suggestion: in 10,150m.—No. 28, 4 p.m. Suggestion: in 20,190m.

Miss A——'s calculation in hypnosis : "No. 24, in 18h. and 40m., or 10.10 to-morrow morning.—No. 25, to-morrow morning at 11.15.—No. 26, next Wednesday at 25m. to 4 p.m.—No. 27, next Wednesday at 5.30 p.m.—No. 28, a fortnight and half an hour."

The answers to Nos. 26, 27, 28 were given immediately. In No. 24, Miss A——'s calculation was 18h. and 20m. too early, but would have been correct if the interval suggested had been 1,120m. instead of 2,220m. In No.

25, her calculation was 18h. 20m. too early, but would have been correct had the suggested interval been 1,185m. instead of 2,285m. In No. 26, her calculation was correct. In No. 27, her calculation was 1h. 20m. too late. Here the interval seems to have been taken as 7d. 150m., instead of 10,150m. In No. 28, her calculation was correct as far as it went, but the exact time of fulfilment was not given.

At the time I made the suggestions I also calculated when they would fall due, thus :—No. 24, February 14th, 5 a.m. : Wrong; half an hour too late.—No. 25, February 14th, 6.5 a.m. : Wrong; half an hour too late.—No. 26, February 19th, 3.35 p.m. : Right.—No. 27, February 19th, 4.10 p.m. : Right.—No. 28, February 26th, 4.25 p.m. : Wrong; 5m. too soon.

Results.—No. 24, Friday, February 14th, 4.30 a.m.: Correct. — No. 25, Friday, February 14th, 5.35 a.m.: Correct.—No. 26, Wednesday, February 19th, 3.35 p.m.: Correct.—No. 27, Wednesday, February 19th, 4.10 p.m.: Correct.—No. 28, Wednesday, February 26th, 4.30 p.m.: Correct.

Nos. 24 and 25 were fulfilled during sleep. On the 14th Miss A——, on awaking, found papers by her bedside with 4.30 and 5.35 written on them. On the 19th she was hypnotised in my room at 3 p.m., and carried out Nos. 26 and 27 while in hypnosis. On both occasions she wrote the time in my notebook, and this was witnessed. I asked her during hypnosis if she remembered my last suggestion (No. 28), made the previous week. She said she did and repeated it correctly, but stated she had never thought of it since, and did not know when it would fall due, or the number of minutes that had elapsed since it was given. She had apparently forgotten that when the suggestion was given she had calculated when it would fall due. No. 28 was executed correctly during hypnosis on February 26th. **Experiments.**—Wednesday, February 19th.—No. 29, 3.30 p.m. Suggestion: in 720m.—No. 30, 3.30 p.m. Suggestion: in 7.80m.—No. 31, 3.30 p.m. Suggestion: in 2,160m.—No. 32, 3 p.m. Suggestion: in 10,135m.—No. 33, 3 p.m. Suggestion: in 20,210m.

Miss A——'s calculations in hypnosis: These, with the exception of No. 32, were all correct, and her replies were almost instantaneous. No. 32 was said to be due at 2.5 p.m. on Wednesday, February 26th. This was 1h. 50m. too early, and represented an interval of 7d. less 55m., instead of 7d. plus 55m.

Results.—No. 29, Thursday, February 20th, 3.30 a.m.: Correct.—No. 30, Thursday, February 20th, 4.30 a.m.: Correct.—No. 31, Friday, February 21st, 3.30 a.m.: Correct.—No. 32, Wednesday, February 26th, 3.55 p.m.: Correct.—No. 33, Wednesday, March 4th, 3.50 p.m., was written down at 3.48. The calculation, therefore, was correct, but the time-appreciation 2m. too early.

Remarks.—On awaking at 7 o'clock on the morning of the 20th Miss A—— found a piece of paper with 3.30marked on it, and another with 4.30. On the morning of the 21st she found a piece of paper with 3.30 marked on it. She had no recollection of waking during the night, and, as usual, questioning in hypnosis failed to revive any memory of what she had done. The other suggestions were fulfilled in my room and witnessed by others.

 Experiments.—Wednesday, February 26th, 3.30 p.m.
 —No. 34. Suggestion : in 2,140m.—No. 35. Suggestion : in 3,590m.—No. 36. Suggestion : in 5,030m.—No. 37. Suggestion : in 10,125m.—No. 38. Suggestion : in 10,100m.
 —No. 39. Suggestion : in 20,180m.

Results.—No. 34, Friday, February 28th, 3.10 a.m.: Correct.—No. 35, Saturday, February 29th, 3.20 a.m.: Correct.—No. 36, Sunday, March 1st, 3.20 a.m.: Correct. —No. 37, due Wednesday, March 4th, at 4.15 p.m., was not recorded.—No. 38, Wednesday, March 4th, 3.50 p.m.,

was written down at 3.48: Calculation therefore correct, but time-appreciation 2m. too early.—No. 39, Wednesday, March 11th, 3.50 p.m., was written down at $3.51\frac{1}{2}$: Calculation therefore correct, but time-appreciation $1\frac{1}{2}$ m. too late.

Remarks.-These suggestions were only read to Miss A---- once; she was then asked to repeat them, and did so correctly, with the exception of No. 37. She was told not to make any calculations. Nos. 34, 35 and 36 were executed during sleep, and the papers, as usual, were found at Miss A .--- 's bedside in the morning. It is to be noted that 3.50, March 4th, the terminal time of No. 38, was also the time at which another suggestion, made a fortnight before, fell due, and which has already been recorded in its proper place. Miss A---- stated at 3.48 that she had to make two crosses and to put down 3.50 twice. Of No. 37, due at 4.15 p.m., Wednesday, March 4th, I have no record. I am not certain whether this was my fault or Miss A --- 's; I was hypnotising another patient when the suggestions were fulfilled, and might have omitted to enter that one; on the other hand, Miss A---- might have failed to carry it out. Three suggestions fell due very quickly, and one of them, as we have seen, belonged to another series. When suggestions were made to fall due in a fortnight, and I saw the patient in the week between, I sometimes questioned her in hypnosis as to the unfulfilled ones; she always assured me that she had never thought of them, did not know how much of the time had elapsed, nor when they fell due.

Experiments.—Wednesday, March 4th, 3.45 p.m.— No. 40. Suggestion : in 10,080m.—No. 41. Suggestion : in 10,055m.—No. 42. Suggestion : in 10,040m.—No. 43. Suggestion : in 750m.—No. 44. Suggestion : in 2,160m. —No. 45. Suggestion : in 2,195m.

Results.—No. 40, Wednesday, March 11th, 3.45 p.m., was written down at 3.44: Calculation correct, time-appreciation 1m. too soon.—No. 41, Wednesday, March 11th, 3.20 p.m., was written down at 3.22: Calculation correct, time-appreciation 2m. too slow.—No. 42, Wednesday, March 11th, 3.5 p.m.: Correct.—No. 43, Thursday, March 5th, 4.15 a.m. during sleep: Correct.—No. 44, Friday, March 6th, 3.45 a.m. during sleep: Correct.—No. 45, Friday, March 6th, 4.20 a.m. during sleep: Correct.

Remarks.—When these suggestions were given, Miss A—— was not asked to calculate when they would fall due. Mr. Barkworth and Dr. Barclay were present when Nos. 40, 41 and 42 were fulfilled.

At this séance, March 11th, fresh suggestions were made under the following conditions. Mr. Barkworth and Dr. Barclay were both put en rapport with Miss A——, and it was agreed that they should each make two timesuggestions, arranged so as to fall due at the next séance, when they promised to be present. These were given when I was out of the room, and I was not told what they were until after their fulfilment. The suggestions were as follows:—

Experiments.—Wednesday, March 11th, 4 p.m.— No. 46. Suggestion: in 21,400m.—No. 47. Suggestion: in 21,420m.—No. 48. Suggestion: in 21,428m.—No. 49. Suggestion: in 21,434m.

Results.—No. 46, Thursday, March 26th, 12.40 p.m., was written down at 12.38: Calculation correct, timeappreciation 2m. too early.—No. 47, Thursday, March 26th, 1 p.m., was written down at 12.59: Calculation correct, time-appreciation 1m. too early.—No. 48, Thursday, March 26th, 1.8 p.m.: Correct.—No. 49, Thursday, March 26th, 1.14 p.m.: Correct.

Remarks.—Miss A—— was hypnotised at 12.30 p.m. on Thursday, March 26th, and carried out the suggestions while in that condition. Mr. Barkworth and Dr. Barclay were both present and checked the time-records. None of us, however, had any idea whether the experiments

. were correctly carried out or not, as Mr. Barkworth and Dr. Barclay had mislaid their notes and were unable to recall the suggestions they had given. Miss A---- was roused from the hypnotic state and, as usual, remembered nothing of the suggestions. She was then re-hypnotised, asked to recall them, and replied as follows :--- "They were made at 4 p.m. last Wednesday week, and were to be fulfilled in 21,400, 21,420, 21,428, and 21,434 minutes. Mr. Barkworth and Dr. Barclay gave two suggestions each." Miss A —— stated that she had made no calculation at the time and had not thought of the suggestions afterwards. On April 22nd, Dr. Barclay sent me the lost memorandum of his two suggestions, viz. 21,428 and 21,434 minutes from 4 p.m. on the day already mentioned. On April 27th, Mr. Barkworth wrote to tell me that he also had found his memorandum, and that the suggestions were 21,400, 21,420, 21,428 and 21,434 minutes; the first two had been given by himself, the two latter by Dr. Barclay. This agreed with Miss A___'s account.

A fresh series of suggestions was made on April 8th, some to fall due during the night, others the following week in my presence. The patient lost her papers recording the former, and I was too busy to enter the latter. These are the only experiments in the whole series which are not recorded, and they are omitted for the above reasons. Later, Miss A—— found the record of the suggestions which had been carried out during natural sleep; they were correct.

Experiments.—Thursday, May 7th, 3 p.m.—No. 50. Suggestion: in 8,650m.—No. 51. Suggestion: in 8,680m.— No. 52. Suggestion: in 8,700m.

I still further complicated these by suggesting as follows: "No. 50 is to be fulfilled in the waking state. Five minutes before No. 51 falls due, you are to pass into the hypnotic condition. No. 51 is to be fulfilled during hypnosis, but five minutes afterwards you are to pass into the normal waking state, and continue in it until after the execution of No. 52. Eight minutes after No. 52 is carried out hypnosis will again appear."

Results.—No. 50. (a) Suggestion fulfilled, Wednesday, May 13th, 3.10 p.m.: Correct. (b) Hypnosis appeared at 3.31 p.m.: This ought to have been 3.35, and was therefore 4 minutes too early.—No. 51, Wednesday May 13th, 3.40 p.m. (a) Suggestion fulfilled during hypnosis: Correct. (b) Miss A—— passed spontaneously into the normal state at 3.45: Correct.—No. 52, 4 p.m. (a) Suggestion fulfilled in the waking state: Correct. (b) Hypnosis appeared exactly at 4.8: Correct.

Remarks.—On May 13th Miss A_____ came into my consulting-room at 3.5 p m., and almost immediately fainted. She had recently met with a severe accident and was in acute suffering. On regaining consciousness, she at once said she had to make a cross at 3.10, and did so in my casebook ; others were present in the room when all the suggestions were fulfilled, with the exception of the first.

Experiments.—Wednesday, May 13th, 4.30 p.m.— The suggestions were given in the following general terms: "You are to repeat all the experiments made last Thursday, but to-day you are to start from 2.55 instead of 3 p.m., and to each suggestion you are to add 1,440 minutes." The original suggestions were not cited, nor was any other information given. The experiments, therefore, were as follows :—

No. 53, Wednesday, May 13th, 4.30 p.m. Suggestion: in 8,650m. from 3 p.m., plus 1,440m., minus 5m. from starting-point.—No. 54, Wednesday, May 13th, 4.30 p.m. Suggestion: in 8,680m. from 3 p.m., plus 1,440m., minus 5m. from starting-point.—No. 55, Wednesday, May 13th, 4.30 p.m. Suggestion: in 8,700m., plus 1,440m., minus 5m. from starting-point.

Results.— No. 53, Wednesday, May 20th, 3.5 p.m. Fulfilled in the waking state : Correct. Hypnosis appeared

at 3.30 : Correct.—No. 54, Wednesday, May 20th, 3.35 p.m., in hypnosis : Correct.

Miss A____ passed spontaneously into the normal condition at 3.40 : Correct.

According to the original suggestions, Miss A — was to remain in the normal state until the fulfilment of the next experiment, but, as she had a severe headache, I hypnotised her, made curative suggestions, and told her hypnosis would terminate one minute before the next experiment fell due. She passed into the normal waking state at 3.49, 6 minutes too soon.—No. 55, Wednesday, May 20th. 3.55 p.m. was written down at 3.50 : Calculation therefore correct, but time-appreciation 5 minutes too early.

I re-hypnotised Miss A—— immediately the above experiment was fulfilled. At 4.3 p.m., while still in the hypnotic state, she said it was 3 minutes past 4, and that I had suggested that hypnosis would appear at that hour; this was correct.

Remarks.—It is to be noted that hypnosis appeared at 3.30 p.m., the exact time suggested. This is particularly interesting, as the experiment, correctly executed at 3.30 on May 20th, was the one erroneously carried out on May 13th, complicated by 5 minutes having been deducted from its starting-point and 1,440 minutes added to its interval.

No. 55 was the last experiment of the series. A few others, similar in character, were made in October, 1896. These were successful, but presented no fresh features, and as Miss A—— had to cease her visits, owing to her approaching marriage, further experiment was impossible.

Summary.—Fifty-five experiments are cited; of these one, apparently, was either not carried out by Miss A——, or unrecorded by me, while in another (No. 9) she mistook the original suggestion, but fulfilled it correctly in accordance with what she thought it had been. Forty-five were completely successful, *i.e.* not only did Miss A—— write down

EXPERIMENTAL CASES

the correct terminal time, but this was done also at the moment the experiment fell due. Eight (Nos. 33, 38, 39, 40, 41, 46, 47, 55) were partially successful. In these the terminal time was correctly recorded in every instance, but there were minute differences, never exceeding five minutes, between the patient's correct estimate of when the suggestion fell due and the moment at which she carried it out. The proportion which these errors bear to their respective intervals varies between 1 to 2,028 and 1 to 21,420. The table on page 114 gives an analysis of the conditions under which the experiments were carried out and their results.

The following is the medical history of Miss B——'s case:—

No. 70. Miss B—, aged 20; April 6th, 1894. Had always slept badly. The insomnia varied, but, according to her mother's account, she had not had a good night's sleep since birth. At the age of 8, pains in the back, particularly in the lumbar region, began; these soon became constant, and were aggravated by the slightest exertion. Since 1883 there had been frequent attacks of headache; pain usually frontal, sometimes occipital, rarely followed by sickness. Myopia corrected by glasses. Periods—always painful and excessive—lasted eight or nine days, and necessitated rest in bed. Latterly, all the symptoms had been worse; she was never free from pain, always felt fatigued and depressed, while even a short walk was followed by acute suffering. She had had prolonged medical treatment without benefit.

TIME-APPRECIATION EXPERIMENTS

		WITNESSED BY			RESULTS				
Experiments.		Friends or relatives	Bramwell and others	Branwell alone	Unwitnessed	Correct	Wrong	Unrecorded	Remarks.
Fulfilled in the waking state	26	14	11	1	•	20	6	0	1 mistaken suggestion. 1 fulfilled 2 minutes too soon. 1 fulfilled 2 minutes too soon. 1 fulfilled 1 minute too soon. 1 fulfilled 2 minutes too soon. 1 fulfilled 5 minutes too soon.
Fulfilled in hypnosis	15	0	15	0	0	12	3	0	$\begin{cases} 1 \text{ fulfilled } 1\frac{1}{2} \text{ minutes} \\ \text{too soon.} \\ 1 \text{ fulfilled } 2 \text{ minutes too} \\ \text{soon.} \\ 1 \text{ fulfilled } 1 \text{ minute too} \\ \text{soon.} \end{cases}$
Fulfilled in natural sleep	13	0	0	0	13	13	0	0	In each instance, figures which correctly repre- sented the terminal time of the experiment were found at the subject's bedside in the morning, but there is no evidence to show whether this was done at the moment the suggestion fell due; <i>i.e.</i> the subject's calcu- lations were correct, but evidence as to time- appreciation is wanting.
Unfulfilled	1	0	0	0	1	0	0	1	It is doubtful whether this experiment was carried out by the sub- ject. It is, however, possible that I omitted to record it, as it fell due when I was engaged with another patient.
Total	55	14	26	1	14	45	9	1	2

No organic lesion of any kind had been discovered; with the exception that the cervix was slightly conical, the uterus and ovaries were normal.

She was sent to me by Dr. Boulting, of Hampstead, on the date mentioned. I saw her sixteen times up to June 26th. The treatment was then discontinued, as all the morbid symptoms—menorrhagia excepted—had disappeared.

As the menorrhagia persisted, the treatment was repeated at a later date; since then the periods have been normal in duration and amount, and absolutely free from pain. Instead of keeping her bed, the patient has been able to cycle, etc.

I taught her to influence herself by suggestion, and she acquired the power of putting herself to sleep at will and also of inhibiting painful sensations. Her dentist told me that she had always been a difficult patient, owing to her hypersensitiveness to pain, till she astonished him by refusing gas for a dental operation and inducing anæsthesia by self-suggestion.

In April, 1895, Miss B——'s mother consulted me in reference to this patient's mental and moral condition. She had suffered from fits of violent passion since early childhood, and was so little able to control herself that her mother feared she might kill her sister, and she often came to blows with her younger brother. She had always been intensely selfish and could not see why she should do anything for others. She admitted her defects of character without shame, and said she heartily enjoyed quarrelling and setting others by the ears. She consented to let me try to alter her character, and I suggested that she should give up quarrelling and take a pleasure in helping others. A complete change took place; she became affectionate, goodtempered and helpful.

At the date of the last report (1908), Miss B—— was well and there had been no relapse.

The first experiments consisted in determining by

suggestion the time of waking from normal sleep. The hours selected varied widely; but the results were almost uniformly successful and the greatest error recorded did not exceed five minutes. Others, similar to Miss A——'s, followed. Thus:—

Experiment 1.—November 25th, 1895, 3.55 p.m. Suggestion: in 24h. 50m. Result: Correct. Remarks: In reply to questioning in hypnosis, Miss B—— stated that when the suggestion was given she calculated when it would fall due and determined to carry it out at that hour.

Experiment 2.—November 27th, 1.20 p.m. Suggestion : in 1,445m. Result : 10m. too early.

Experiment 3.—December 6th, 3 p.m. Suggestion: in 1,440m. Result: Correct.

Experiment 4.—December 9th, 3.15 p.m. Suggestion : in 2,880m. Result : Correct.

Experiment 5.—December 12th, 3.30 p.m. Suggestion: in 1,540m. Result: 7m. too late.

Experiment 6.—December 16th, 3.30 p.m. Suggestion: in 1,620m. Result: 13m. too late.

Experiment 7.—December 20th, 3 p.m. Suggestion : in 1,380m. Result : Correct.

Experiment S.—December 31st, 3.15 p.m. Suggestion: in 24h. 1,200m. Result: Correct.

Experiment 9.—January 2nd, 1896, 3.10 p.m. Suggestion: in 24h. 1,430m. Miss B——'s calculation, made in hypnosis, was 40m. too early. Result: 5m. too late.

Experiment 10. January 6th, 3.15 p.m. Suggestion : in 24h. 100m. Miss B——'s calculation, in hypnosis, was correct. *Result* : 8m. too late.

Experiment 11.—January 27th, 3.10 p.m. Suggestion : in 24h. 150m. Miss B——'s calculation, in hypnosis, was correct. *Result* : 10m. too soon.

Experiment 12.—March 27th, 3.10 p.m. Suggestion : in 24h. 240m. Miss B——'s calculation, in hypnosis, was correct. *Result* : Correct. Time-experiments more or less closely resembling those cited have been occasionally repeated with Miss B——, and with practically identical results.¹

Before considering theoretical explanations of hypnotic and post-hypnotic appreciation of time, I propose to discuss (1) the possibilities of mal-observation or deception, and (2) to draw attention to certain other points which appear worthy of notice.

1. The question of mal-observation or deception.—(1) The subjects of all my time-experiments were either former patients or personal friends. None of them were trained hypnotic subjects, and in no single instance was a pecuniary reward promised or given. All this, however, does not in itself exclude the possibility of mal-observation or deception, and I would rather base my arguments in favour of the genuineness of the results on post-hypnotic amnesia, and on the fact that the problems involved were beyond the subjects' waking powers.

(2) While, however, all observers recognise posthypnotic amnesia, it must be admitted that loss of memory might be assumed for purposes of deception. Fortunately, there are other hypnotic phenomena impossible of imitation; amongst these may be cited: (a) the absence of certain organic changes following injury (Delbœuf's case of two symmetrical burns), and (b) the absence of physiological signs of pain during severe and prolonged operation. The latter fact was clearly demonstrated in the operations on my patients at Goole and Leeds.² Several of these patients were afterwards the subjects of my time-experiments, and all who were employed for this purpose, including Miss

¹ An extremely interesting and valuable series of experiments on "The Appreciation of Time by Somnambules," by Dr. T. W. Mitchell, was published in the *Proceedings* of the Society for Psychical Research, part liv., vol. xxi.

² See ante, pages 14-20.

A—— and Miss B——, could be easily rendered anæsthetic or analgesic by suggestion.

(3) It is obvious, of course, that post-hypnotic amnesia alone, even when it is undoubtedly genuine, does not exclude possible error, as the subject might conceivably receive information from the operator or the spectators. It is, however, difficult to see how this could have happened in Miss A--'s case. Thus, twenty-seven experiments were fulfilled in my absence, and no information regarding these (excluding, of course, the suggestions made to Miss A---- during hypnosis) was given to anyone until some time after the whole series was completed. I did not calculate when any of these twenty-seven suggestions would fall due, and did not know, until after their fulfilment, whether they had been carried out correctly or not. Twenty-seven further experiments were fulfilled in my presence; these, with one exception, were also witnessed by others. In four of them the suggestions were made by Mr. Barkworth and Dr. Barclay, and I did not know what they were until afterwards. These two operators, however, could not assist the subject, as they had lost their memoranda and were unable to recall the figures. In the remaining twenty-three, none of the spectators knew what the suggestions were. Indeed, in some instances, they did not know that any suggestions were being carried on, until they saw them executed and were asked to witness the figures, their ignorance being purposely arranged.

(4) In the twenty-three cases just cited, before giving the suggestions I calculated when they would fall due. Could Miss A—— have learnt anything about this through telepathy or muscle-reading? During the last twenty years 1 have searched for evidence of telepathy and also taken part in the experiments of other observers; the results, however, have been invariably negative. If, for argument's sake, we conceded the possibility of telepathy, recognising also that somnambules possess hyperæsthesia of the special senses, it would be difficult to see what information Miss A_{----} could have obtained from me. In the majority of the experiments I did not work out the time at which the suggestions would fall due, and, even when I did, many of my calculations were only approximately correct, although I was not aware of this until after all the experiments were completed. Moreover, I have an unusually bad memory for figures, and never, either before or during the execution of the suggestions, recalled my calculations as to the time at which they were supposed to fall due. Further, when the experiments were carried out, I was nearly always busily engaged with other patients, and so placed that Miss A_{----} could not see my face.

(5) Again, even supposing post-hypnotic amnesia had not existed in Miss A——'s case, the retention in the waking state of the memories of hypnotic life would not in itself explain her feats in calculation and time-appreciation. Miss A——'s memory, knowledge of arithmetic and power of appreciating time in no way exceeded those of other imperfectly educated girls in her station of life. Her normal memory was incapable of retaining complicated series of figures, and she was unable to make even much simpler mental calculations than those involved. After the suggestions were made, she remained in the hypnotic state for an hour or more, and could not consult the clock. During that period it was absolutely impossible for her to record the suggestions in any other way than mentally.

2. Other points of interest.—(1) Five minutes before the first experiment was fulfilled, Miss A—— began to fidget and felt she must do something. This preliminary stage of restlessness was absent in all the others. In them, when the time for carrying out the suggestions arrived, Miss A—— had a sudden twitching of the fingers of her right hand, immediately followed by the idea of writing down certain figures. The abruptness of this

invasion of the normal consciousness, by a message from the subliminal one, was particularly noticeable when Miss A—— was actively engaged in conversation at the time.

(2) On twenty-four occasions Miss A—— was asked to calculate when the suggestions fell due; she was wrong in the first nine instances, but, in the remaining fifteen, right in eleven and wrong in four. As the experiments advanced, not only the frequency but also the extent of Miss A——'s errors in calculation decreased, and the answers were given much more rapidly. Sometimes the correct replies were almost instantaneous, and in these instances no conscious calculation could be traced. It is to be noted, also, that Miss A——'s mistaken calculations had no effect on the correctness of her results.

(3) Memory.—Once only did Miss A—— spontaneously recall in hypnosis that a time-suggestion (yet unfulfilled) had been given. This was Experiment No. 3, when the suggestion was an easily remembered one, viz., 24 hours and 100 minutes. On other occasions, when Miss A---- was questioned in hypnosis as to the unfulfilled suggestions, she invariably recalled the fact that these had been made, but rarely their exact terms. She always asserted that she had never thought of them, did not know how much time had elapsed since they were given, nor when they were due. This was so even in cases where she had calculated the terminal time. At first, Miss A- forgot all about the suggestions immediately after they were fulfilled; she did not know she had made a cross or written down the figures, and could not recall what they meant. This condition of memory was identical with what is almost universally associated with post-hypnotic acts. Later, for convenience' sake, it was suggested to Miss A-, during hypnosis, that she should remember having executed the experiments. She then knew in the waking state that she had made a cross and written down certain figures,

but recalled nothing of the original suggestion, of which these acts were the fulfilment. When Miss A--- was questioned in hypnosis, after the execution of the suggestions, her memory on certain points was very clear. She could recall in every detail the terms of all experiments that had recently been carried out, i.e. she remembered the hours at which they had been made, the number of minutes suggested, her own calculations, if any, and the moment and circumstances under which the suggestions had been fulfilled. Putting aside the calculations she made at the time, in response to suggestion, she was unable to recall having made any others, or to give any information as to the methods by means of which she had correctly fulfilled the experiments. When a second series of suggestions was given, before the first had been fulfilled, after all had been carried out she could recall both series and place each suggestion in its proper order. This memory, however, was not persistent. A fortnight after the experiments had been executed, although Miss A--- still remembered in hypnosis that they had taken place, she was unable to recall the details. When experiments were fulfilled in normal sleep, she remembered, in hypnosis, their terms and when they had been given, but not when they had been executed.

(4) The experiments had no prejudicial effect on Miss A——'s health. On the contrary, this steadily improved. When I last heard of her, she was a strong, healthy, well-developed woman, the mother of two children, and had had no return of her nervous symptoms.

In no single instance did any bad effect, even of the most trivial description, follow these or other hypnotic experiments.

(5) The results of the experiments were only estimated after the series was completed, when a friend, Mr. Bartrum, B.Sc., kindly checked them for me. He discovered that some of my calculations, made at the time, had been

erroneous. I am also indebted to him for a critical examination of the calculations the patient was asked to make when the suggestions were given.

(6) With the following exception, the phenomena observed in the cases of Miss A — and Miss B — differed little. When a simple suggestion was given, Miss B — sometimes spontaneously calculated when it would fall due. Miss A — , on the other hand, never made any spontaneous calculations at all. Apparently Miss B — did not spontaneously calculate the more complicated arithmetical problems. When she did so, in response to suggestion, her results were invariably correct, but, despite this, the experiments were not always fulfilled at the appropriate time. Miss A — , on the contrary, was often wrong in her calculations, while the suggestions themselves were carried out with phenomenal accuracy.

(7) In some recent instances Miss B—— apparently made no spontaneous calculations, despite the fact that the arithmetical problems involved were extremely simple. For example, I suggested that she should shake hands with me forty minutes after I aroused her from hypnosis. At the moment indicated, in the midst of an animated conversation, she suddenly asked me to shake hands with her. In reply to my questions, she said she had felt impelled to do this, but could not tell why. A few minutes later she had completely forgotten the incident. I re-hypnotised her; she then recalled the suggestion and the impulse she had experienced, but could not remember having made any calculation or having in any way marked the passage of time.

Further experiments.—In reply to questions, while she was in so-called hypnosis, Miss A—— said she was sure she could refuse any suggestion, if she wished to do so; that she felt she was herself; that she knew where she was and what she was doing. "Are you the same person when you are hypnotised as when you are awake?" I asked. "Yes," she replied with a laugh. I further asked her, "When you are hypnotised, and no one is talking to you, do you ever think of anything?" She replied, "Very seldom; I just feel to be resting most peacefully. One day, however, I was troubled about my dressmaking. My employer was ill, and I had more responsibility than usual. I had a difficult piece of work to do, and could not understand how it was to be done. After you had hypnotised me, and left me to rest, I planned how I would do it, and carried this out successfully when I returned home. When you aroused me, I did not know that I had done this. The way out of the difficulty suddenly came into my head on my way home, and I thought I had found it out at that moment. I now remember planning while hypnotised what I afterwards carried out."

On one occasion, after being hypnotised and when she was apparently in the lethargic condition, she suddenly volunteered the statement that her mother wished to speak to me. Shortly afterwards the latter entered the room. The subject was still in the hypnotic condition, and no suggestions of *rapport* were made. Mrs. A—— commenced to tell me about a friend in whom she was interested, with a view to finding out whether I thought hypnotic treatment would be of benefit in his case. Miss A—— suddenly joined in the conversation, and added some important details which Mrs. A—— had forgotten. When hypnosis was terminated, Miss A—— could recall nothing of this.

On another occasion, in similar circumstances, Mrs. A-- questioned me in reference to a trivial indisposition from which her daughter was suffering, and asked me whether I thought she might give her a certain simple remedy. Upon this, Miss A--- commenced to laugh, and recounted, in a highly amused manner, an experiment of her mother's in domestic medicine, of which she had been the unfortunate victim.

Further experiments with Miss A---- were made in conjunction with Dr. Hyslop, of Bethlem, and of some of

these he gives an account in his work entitled "Mental Physiology," pages 423–4. From this the following is an extract :—

"In the state of artificially induced hypnosis, the will-power is sometimes maintained intact. Bramwell has demonstrated that although there is an extreme readiness to react to suggestion from without, yet there still remains a higher controlling influence, or auto-suggestion, which enables the hypnotised person to deliberate, choose, and inhibit at will.

"During the waking state of one of Dr. Bramwell's subjects, Miss A---, I made the suggestion to her that she ought to resist a certain movement during the hypnotised state. Dr. Bramwell was not present at the time the suggestion was made, and was quite unaware of the restriction imposed upon the subject. On testing the movements suggested during the hypnotic state, he found that the subject absolutely refused to carry out his suggestion with regard to this particular movement. The auto-suggestion proved as efficacious during the artificia¹ state as during the normal state. How we are to explain this retention of the individuality of the subject we do not know. The facts alone would appear to warrant the conclusion that the memory image of the special act to be retained was present during the artificial state, and that there existed a certain degree of continuity between the primary mental conception and the secondary inhibition. On again awaking, this subject remembered our suggestion, but had not the faintest recollection as to what had happened during hypnosis."

The following are examples of time-appreciation unassociated with hypnotic suggestion :---

No. 71. Dr. George Savage possesses the power of awaking at a given hour, and has tested it on several occasions. The following is an example :—One day, having to catch an early train, he had determined to awake at

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6 a.m., and slept soundly without awaking until the exact time. The seven following mornings he awoke exactly at six o'clock, notwithstanding that he went to bed at different hours and there was no necessity for early rising. This involuntary repetition of self-waking at stated times also occurred when he was roused by others at abnormally early hours. Thus, when in the Alps, if he were called at 2 or 3 a.m. he would awake spontaneously at the same hour next morning, even if he had been much fatigued by climbing. Dr. Savage states that the accuracy of the time of awaking in these instances has puzzled him greatly.

The following is Professor Marcus Hartog's account of his own case :---

No. 72. "When I was a student, under 17, I found I could, sleeping soundly, awake at any given hour I had set myself overnight. The peculiarity of such waking was that it was always sudden and complete, not preceded by a period of broken sleep, nor accompanied by the drowsiness of an ordinary unprepared awaking. If I found that it was needless to get up I soon fell asleep again, and then had the ordinary drowsy awaking, often oversleeping myself. This faculty has persisted with me.

"Again, without previous training, between the ages of 20 and 25, on three distinct occasions I had to nurse friends, when I had to administer food and medicines at regular intervals, attending also to their necessities as they arose. The last occasion extended over, I think, three weeks. On each occasion, the facility and manner of awaking completely and suddenly was exactly the same as for early rising, whether at the stated hour or at the least stir of the patient. On lying down to rest again and closing my eyes, I seemed to see a gradually widening vista, and as my eyes diverged I fell asleep; the time occupied could not have been more than a quarter of a minute, though I felt wide awake at the moment of closing my eyes. My sleep on these occasions was singularly, if not absolutely, dreamless, though I was under the greatest mental anxiety while awake."

In Professor Hartog's case, the awaking at fixed hours was never involuntarily repeated, *i.e.* as regards the awaking at repeated intervals. Sometimes, however, when he set himself to awake at a fixed time in the morning, this was repeated for several days, as in Dr. Savage's case.

Automatic writing in hypnosis.—Most of the time-appreciation experiments referred to involved a certain amount of "automatic writing." In the experiments about to be cited, automatic writing was the main feature, and its occurrence, while the normal consciousness was otherwise actively engaged, the chief point of interest.

In choosing a subject for this form of experiment, two things are essential, viz.: (1) he must be a somnambule, *i.e.* retain no memory on awaking of what has passed in the hypnotic state, and (2) hypnosis must be capable of being induced and terminated instantaneously. Thus, when hypnosis is terminated immediately after the suggestion has been given, it follows that the problem must be solved by the secondary consciousness, while the subject is in the waking state, and his normal consciousness purposely actively engaged in another way.

I have often made the following and similar experiments. I ask a subject while awake to write down a few verses, which I take charge of and do not show him again. I then make him read aloud from some book previously unknown to him, this being chosen in order to engage his entire attention. While reading, I hypnotise him suddenly, place pencil and paper near his right hand and suggest: "On waking you will go on reading where you left off, and at the same time write down how often 'b' [or any other letter selected] occurs in the verses you gave me. Wake up." He awakes, resumes reading, and at the same time writes down the answer to the problem suggested. This, almost invariably correct, is often done so rapidly that I

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have not had time to count the letters, even with the verses before me. I then tell the subject to stop reading, and ask him what he has written. He replies, "Nothing," and, when I show him the paper, is astonished and declares he does not know what it means. I then rehypnotise him, whereupon the lost memory returns, and he not only recalls the suggestion, but also the fact that he has carried it out.

Thus, the primary waking consciousness retains no recollection of the hypnotic suggestions. It does not know that the secondary consciousness, after the hypnotic state has been terminated, first solves the problems and then directs the motor acts which record the solutions. It is also unconscious of the motor acts themselves.

Gurney made many interesting experiments, with healthy non-hysterical men, which illustrate the severance of the normal or primary from the latent or secondary consciousness. Of these, the following are examples :—

(1) The first were simple cases which involved memory, but not independent thought. Thus Gurney showed P——, one of his subjects, a planchette and made him write his name with it. P—— was then hypnotised, told that it had been as dark as night in London on the previous day, and that he would record this fact in writing. On awaking he remembered nothing. His hand was then placed on the planchette—a large screen being held in front of his face, so that it was impossible for him to see the paper or the instrument—and in less than a minute he wrote : "It was a dark day in London yesterday."

(2) In the next experiments, statements were impressed on the subjects, but nothing was said as to subsequently recording them. After waking, however, the writing was executed as before.

(3) Gurney made more complicated experiments with another subject. During hypnosis, questions were asked about his past life, or arithmetical problems were suggested.

He was then awakened immediately, before he had time to think of a reply, and, to engross his attention, told to count backwards from a hundred; meanwhile, the planchette wrote the correct answers to the different questions.

(4) Further experiments involved the reckoning of time. These, however, were not confined to the execution of an order at a given moment, but involved, in addition, other calculations made in the waking state *at a suddenly selected moment*, regarding which nothing had been previously said to the subject. For instance, during hypnosis he was told that he had to do something at a given date, and also that, before the time arrived, he would be required to write down the number of minutes that had passed since the suggestion was given, as well as the number that had still to elapse before its fulfilment. In the interval, when his hand was placed upon the planchette, he generally wrote the answers to the problems. The results, allowing for the time occupied in writing, were remarkably accurate.

In the experiments cited in this chapter it has been impossible to avoid the terms hypnosis, somnambulism, and the like. It must not be forgotten, however, that, in the condition called somnambulism, consciousness is intact, even though the subjects may appear to be asleep, and retain no memory on waking of what has happened during the so-called hypnotic state. The lost memories can always be restored by suggestion. Further, although one talks of waking the hypnotised subject, this only means that the word "Awake" was, in the instance cited, the prearranged signal for the termination of the condition of increased suggestibility and alternating consciousness, which has hitherto been erroneously called somnambulism.

CHAPTER VII

TELEPATHY, CLAIRVOYANCE, RAPPORT, ETC.

Advocates of Telepathy divided into Two Groups—Investigations of the Psychical Research Society—Rapport—Braid's Position— Theories of Bernheim and Liébeault—The Author's Conclusions.

MANY of the mesmerists, including Elliotson and Esdaile, believed in the existence of telepathy, clairvoyance, and other so-called "higher" or "occult" phenomena. In telepathy, thought was supposed to be conveyed directly from the brain of one person to that of another, without the intervention of any of the usual media of transmission; in clairvoyance, the subject was supposed to see, as in a mirror or picture, events which were taking place at a distance. Braid showed that the belief in telepathy and clairvoyance was the result of mal-observation and selfdeception. Within recent times, however, there has been a revival of belief in the existence of telepathy and clairvoyance, particularly the former. As to **telepathy**, we find its existence asserted by two classes of observers :

(1) A small group—mainly composed of men who had distinguished themselves in one or more branches of science —who claimed to have investigated the alleged phenomena by scientific methods. Amongst these may be cited the late Professor Henry Sidgwick, Frederic Myers and Dr. A. T. Myers. Although their experiments were carefully conducted, it is doubtful whether all possible sources of error were excluded; and I am unable to accept them as conclusive.

(2) The second group—who boldly assert that telepathy

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is an accepted scientific fact, a phenomenon which any expert can produce at will-belong to a totally different Thus Hudson, in his book "The Law of Psychic class. Phenomena," talks of telepathy as a recognised commonplace, and describes it as the basis of the most successful branch of Christian Science, namely the "absence treatment." Here, the physician sits dreamily in his consultingroom at home, and sends mental curative suggestions to his different patients. Or, better still, he just thinks of them a moment before going to sleep at night; and then his "subconscious mind" works on their "subconscious minds," while all of them are sleeping. The patients are not aware of receiving any impression from the operator, but that is easily explained-their normal consciousness does not know what is happening to their "subconscious mind." For these extraordinary statements Mr. Hudson has no evidence of value to offer.

After many years of hypnotic work, and frequent opportunities of investigating the experiments of others, I have seen nothing, absolutely nothing, which might fairly be considered as affording even the slightest evidence for the existence of telepathy, or of any of the so-called "occult" phenomena.

For several years a committee of the Society for Psychical Research, of which I was a member, devoted itself mainly to telepathic experiments. Our methods were simple and effective, and yet placed no unnecessary barrier in the way of the occurrence of the phenomenon. The subject, generally hypnotised, was placed in an arm-chair, and told that the operator would select different cards from a pack, and that he (the subject) was to try to indicate the card selected. The operator, who was so placed that the subject could not see what he was doing, drew the cards from the pack at random, told the subject he had selected one, was looking hard at it and that he (the subject) would see or know what it was. Meanwhile the operator stared fixedly at the card for several minutes and concentrated his attention entirely on it. In these experiments, as well as in a long series of private ones, the percentage of correct indications fell below the number which ought to have been reached, according to the laws of chance. Despite all this, it would be unphilosophic to deny the possibility of telepathy; and I am quite ready to be convinced of its existence, if anyone can divine even as few as six out of every dozen cards selected by the operator under circumstances similar to those described.

Rapport.-According to Braid, the condition of the attention in hypnosis favoured response to external suggestion, but not to suggestion conveyed by any particular person, such as the hypnotiser. It was possible by suggestion to create an artificial state in which the subject seemed to be en rapport with the operator only, but this condition was only an apparent, not a real one. The subjects really heard the suggestions of others, though special artifices might be necessary in order to make them respond to them. In illustration of this, Braid cited a case in which he made a somnambule respond to his indirect suggestions, conveyed in the form of confident predictions of what was going to happen, though the subject was supposed to be asleep when he entered the room, and was apparently only en rapport with the original operator. Carpenter drew attention to the fact that rapport was unknown to Mesmer and his immediate disciples, and was not discovered until long after the practice of mesmerism had come into vogue. The phenomena of rapport only acquired constancy and fixity in proportion as its laws were announced and received. Mesmerists, ignorant of rapport, produced a great variety of remarkable phenomena, but did not discover this one until the idea had been put into their heads, and thence transferred to their subjects.

According to Bernheim and Liébeault, a real rapport exists between the subject and the operator, and this

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follows, as a natural consequence, from the methods employed in inducing hypnosis. Not only does it exist, but, according to Bernheim, the operator's power of evoking hypnotic phenomena depends on it. While Bernheim and Liébeault agree on this point, they differ on another. For Bernheim finds in *rapport* the sole difference between hypnotic and ordinary sleep; while Liébeault, on the contrary, tried, by means of it, to establish an analogy between them.

My own observations in reference to *rapport* have led me to conclusions similar to those of Braid, viz. : (1) that *rapport* does not appear unless it has been directly or indirectly suggested; (2) that the condition is always an apparent—never a real—one. Thus, it could always be experimentally proved that the subjects actually had been cognisant of what had been said and done by others, who had not been placed *en rapport* with them. In those who did not know what was expected of them, and to whom neither direct nor indirect suggestions of *rapport* were made, this condition did not appear. On the contrary, they heard and responded to anyone who spoke to them.

Moll, in "Der Rapport in Hypnose," published in 1892, comes practically to the same conclusion as Braid in regard to *rapport*, viz. that it is caused by direct or indirect suggestions of the operator, or by self-suggestions which result from the subject's conception of the nature of the hypnotic state.

CHAPTER VIII

THE THEORY OF HYPNOTISM

Enhanced Intelligence under Suggestion—Anæsthesia and Analgesia —Volition—Mesmeric Theories: The Salpêtrière School; the Automatism Theory; Bennett's Physiological and Psychical Theories; Bernheim's Theory; Heidenhain's Theory; the "Unconscious Cerebration" Theory; the Secondary Consciousness Theory, as formulated by Delbœuf and by Myers— Summary of the Phenomena which point to a Secondary Consciousness.

BEFORE discussing hypnotic theories, I wish to draw attention to the cases and experiments just cited. In some, the condition termed, hypnosis was present. This varied from slight drowsiness or lethargy to apparently profound sleep, followed by amnesia on waking, i.e. the subjects were unable to recall the events of the so-called hypnosis. At first, both Braid and Liébeault regarded this as artificially induced sleep, and believed that it must be evoked before patients would respond to suggestions, either curative or experimental. The condition, however, might be more accurately described as "imitation sleep." The deeply hypnotised subject believed he had been asleep, because he could not afterwards recollect what had happened. Various facts, however, show great dissimilarity between imitation and natural sleep. When the subject is re-hypnotised and questioned, he can relate all that took place in the previous hypnosis, with the exception of any special sensations inhibited by suggestion. Thus, my patients who had undergone painless hypnotic operations could afterwards describe them, and knew what had been said and done by those around them. They were only unable to recall pain, as that sensation had never reached consciousness. Further,

in the so-called lethargic state, the subjects, who lie apparently asleep, hear and respond to the operator's suggestions, even if these are whispered so softly that they could not have heard them in the normal condition. They also hear what is said by others, even when a special rapport has been established between them and the operator. It is true that, under this condition, they will not respond to the suggestions of others, unless special means are adopted (see Braid's experiments, pages 188-89); if questioned, however, by the operator in subsequent hypnosis, it will be found that they were conscious of what was said. Again, some subjects, like Miss A- and Miss B- (pages 78-117), while apparently profoundly asleep, were actively engaged in intelligently solving difficulties which had baffled their waking powers. In every instance, where I questioned socalled hypnotic somnambules as to their mental condition in previous hypnoses, I found that they knew where they had been and what they had been doing or thinking about. They felt that they were the same persons in the so-called hypnotic state as in the waking one, and were conscious that their reason and volition were unimpaired.

Further, subjects in whom hypnosis had been evoked would afterwards pass into the suggestible condition characteristic of it, at any signal to which they had been taught to respond, and without going through any intermediate state even superficially resembling sleep. Of this the following is an example :—

Mr. C—, aged 25, had been hypnotised for operative purposes. At a later date, when a medical man came to ask for information about hypnotism, I used C—, with his consent, for a demonstration. Without making him sit down, close his eyes, or pass through any condition resembling sleep, I induced, practically instantaneously, the condition of suggestibility characteristic of hypnosis. I then said to C—, "Come to another room; there is a doctor there—entertain him until I am free to join

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you." I introduced him to the doctor and went away. When I returned, Dr. —— said, "Your patient has given me an interesting account of your hypnotic operations at Leeds." I asked, "Do you think he is in the normal or the hypnotic state?" He replied, "Of course, the normal." I explained that C--- was in the condition described as the alert stage of somnambulism, and induced anæsthesia by suggestion to demonstrate this. I then said to C---, "Wake up!" and found, on questioning him, that he had no recollection of what had passed. I reinduced the state just described and asked him what had happened. He said, "You hypnotised me in your consulting-room, said that you were going to introduce me to a doctor and asked me to entertain him. I guessed he had come about hypnotism and so told him what would interest him." While speaking to the doctor, his eyes were open and he presented in intelligence and appearance no indication of being in any condition other than the normal waking one, except by his suggestibility as shown by the induction of anæsthesia and the like.

In some of the cases nothing even superficially resembling sleep was induced : the patients simply rested in an arm-chair while suggestions were made. Yet, in many instances, the curative results were as striking as those obtained after the induction of so-called hypnosis.

In both groups increased suggestibility had been developed, and a control of the organism obtained far beyond the will-power of ordinary life. Examples of this are found in the influence of suggestion upon menstruation, perspiration, the secretion of milk, the action of the bowels, etc.

Intelligence.—In some instances the phenomena observed during so-called hypnosis, or following post-hypnotic suggestion, showed increased intelligence. Case No. 69 (pages 96–113) illustrates this. Here the subject developed a quite exceptional power of time-appreciation, and made

subconscious arithmetical calculations far surpassing anything she had done in ordinary life. Further, in subsequent hypnoses, she recalled complicated series of figures, which had been read to her once, or at most twice, in a previous hypnosis—a feat quite beyond her usual memory.

Anæsthesia and analgesia.-In some of my cases anæsthesia or analgesia could be produced by suggestion, even when the patients were obviously awake. Of the twophenomena the latter is the more remarkable. Insensibility to pain, produced by a narcotic such as ether, is characterised by general loss of consciousness; whereas, in hypnotic analgesia, absence of pain is due to the inhibition, from amongst all the patient's possible sensations, of disagreeable ones alone. 'As Frederic Myers pointed out, intelligence is involved in this achievement; it is not a mere anæsthetisation of nerve-endings such as cocaine produces; it includes also the removal of concomitant feelings of nausea, exhaustion, and anxiety - not always directly dependent on the principal pain, but requiring to be first subjectively distinguished as disagreeable before they are picked out for inhibition. This freedom from pain is obtained without deadening or dislocating the general nervous system; without either coma or hysteria. The so-called hypnotic trance is not necessary : pain can be prevented by "post-hypnotic" suggestion, fulfilled after awakening. Hypnotic analgesia is no mere ordinary narcotic-not a fresh specimen of familiar methods of checking pain by arresting all conscious cerebration. It is a new departure; the first successful attempt at dissociating forms of sensation which, throughout the known history of the human organism, had almost invariably been found to exist together.

Volition in hypnosis.—It can be, and has been, fully demonstrated that volition is unimpaired in so-called hypnosis, and that the subject cannot be dominated by the operator. Further, instead of the moral sense being

diminished, it is increased, and the subjects are more sensitive and scrupulous than in ordinary life. The will, instead of being weakened, is often enormously developed; and to this is due the cure of moral insanity, drunkenness, drug habits and the like. To the same cause we owe the results obtained in hysteria, neurasthenia, obsessions, etc. Convulsions, and other muscular movements which had become involuntary, are again controlled. Obsessions, which dominated the mind and influenced the actions, are abolished; and patients who were constantly introspective and haunted by painful thoughts and fears acquire increased control of their own minds.

Above everything, it must be clearly understood that the object of all so-called hypnotic treatment is the development of the patient's will-power and control of his own organism, and that this, once gained, makes him independent of the operator, or of other outside aid.

The problem, therefore, that hypnotic theory has to explain, is this far-reaching control of the human organism —greatly exceeding that of ordinary life—obtained without any sacrifice of volition, intelligence or moral sense, and frequently, also, under conditions which do not in any way even superficially resemble sleep.

Hypnotic theories are numerous, varied and conflicting, and want of space prevents my discussing them in detail. The more important are: 1. The theories of the later mesmerists and of the Salpêtrière School. 2. The "automatism" theory. 3. The theory which attempts to explain the phenomena of hypnotism by the intelligent and voluntary action of a secondary or subliminal consciousness.

1. Mesmeric theories.—According to Elliotson and Esdaile, the phenomena of mesmerism, entirely physical in origin, were due to a curative fluid, or peculiar physical force —called "odylic"—which, in given circumstances, could be transmitted from one human being to another. Certain

metals, crystals and magnets were supposed to possess it ; to be capable of inducing and terminating the mesmeric state, and of exciting, arresting and modifying its phenomena. Apparently, one metal produced catalepsy, another changed this into paralysis ; and even a glass of water became charged with odylic force when breathed upon by the mesmeriser. Everyone was not susceptible to these influences : those who were—called "sensitives"—seemed to develop strange faculties.

Esdaile thus summarised his theory of the therapeutic action of mesmerism :—" There is good reason to believe that the vital fluid of one person can be poured into the system of another. A merciful God has engrafted a communicable, life-giving, curative power in the human body, in order that when two individuals are found together, deprived of the aids of art, the one in health may often be able to relieve his sick companion, by imparting to him a portion of his vitality." Esdaile believed in clairvoyance, and held that mesmeric influence could be exercised at a distance, and conveyed by means of inanimate objects.

Braid investigated the supposed facts, with the following results :—The phenomena appeared when the subjects knew what was expected, or received the information from the suggestions or leading questions of the operator; apart from this they were invariably absent. Thus, imitation magnets produced the phenomena when it was believed real ones were being used, but real ones produced nothing if the subjects were ignorant of their presence.

The Salpêtrière School.—The theories of the Salpêtrière School are now discredited. As far back as the Second International Congress of Experimental Psychology (London, 1892), they had almost ceased to attract attention; it was obvious that the views of the Nancy School had supplanted them. They cannot, however, be passed without examination, for many in this country still regard them as affording a satisfactory explanation of hypnotic pheno-

mena. The following is a summary of these theories: 1. Hypnosis is an artificially induced morbid condition; a neurosis only found in the hysterical. 2. Women are more easily influenced than men; children and old persons are insusceptible. 3. Hypnosis can be produced by purely physical means; a person can be hypnotised unknown to himself. 4. Hypnotic phenomena can be induced, transferred or terminated by magnets, metal, etc.

This theory was attacked by the Nancy School. They pointed out the insufficiency of its data, and cited the confession of one of its supporters that only a dozen cases of hypnosis had occurred in the Salpêtrière in ten years (a very large proportion of the experiments had been made on one subject, long an inmate of that hospital); whereas their conclusions—*i.e.* those of the Nancy School—were drawn from the study of thousands of cases.

Charcot argued that hypnosis and hysteria were identical, because in both the urine was similar. In reply, Moll pointed out that all Charcot's subjects were hysterical; and as the phenomena of waking life are readily induced in hypnosis, Charcot had created a type of hysteria by suggestion. If the hysterical alone can be hypnotised, we must conclude, from statistics of suggestibility, that at least 80 % of mankind suffer from hysteria. Further, the highest percentage of successes was obtained amongst those likely to be free from hysteria. Thus, Liébeault found soldiers and sailors particularly easy to influence, while Grossmann, of Berlin, stated that hard-headed North Germans were very susceptible. Professor Forel, of Zürich, told me he had hypnotised nearly all his asylum warders; he selected these himself and did not choose them from the ranks of the hysterical. Most of Esdaile's patients were males, and he drew particular attention to the fact that they were free from hysteria.

These facts justify the statement of Forel and Moll that it is not the healthy, but the hysterical, who are the most

difficult to influence. Forel asserts that every mentally healthy man is naturally hypnotisable; while Moll says that if we take a pathological condition of the organism as necessary for hypnosis, we shall be obliged to conclude that nearly everybody is not right in the head. The mentally unsound, particularly idiots, are much more difficult to hypnotise than the healthy. Intelligent people, and those with strong wills, are more susceptible than the dull, the stupid, or the weak-willed. Forel says that the most difficult to influence are the insane; while the number of mentally healthy persons hypnotised by Liébeault and Bernheim alone amounts to many thousands. My experience accords with this: I found it easy to hypnotise healthy Yorkshire peasants for operative purposes, but, when my patients were chronic nervous invalids, my difficulties greatly increased.

All observers, with the exception of the Salpêtrière School, agree that sex has little influence upon susceptibility. According to Liébeault, the difference between the two sexes is less than 1 per cent.

Wetterstrand found that he could invariably hypnotise children between the ages of 3 and 15, while Bérillon, out of 250 cases, succeeded with 80% at the first attempt. In one of Liébeault's statistical tables he recorded 100% of successes up to the age of 14. In adult life, age makes little difference. In the same table, between the ages of 14 and 21 the failures were 10%, and from 63 years and upwards 13%.

Can hypnosis be induced by mechanical means alone? This question is answered by the Nancy School in the negative, and I know of no instance where hypnosis has followed the use of mechanical methods, if mental influences have been excluded.

Can various hypnotic phenomena be excited by metals, magnets, etc.? Here, in the assertions of the Salpêtrière School, we have a counterpart of the controversy between Braid and the mesmerists. All the old errors, the result of ignoring mental influences, are again revived : medicines are alleged to exercise an influence from within sealed tubes, and the physical and mental conditions of one subject are stated to be transferable to another, or even to an inanimate object. It is useless to refute these statements again ; this would be needlessly repeating the work of Braid, and, indeed, their absurdity renders argument unnecessary.

The Salpêtrière theory not only resembles that of the mesmerists in attributing to magnets and metals the power of exciting wonderful phenomena, but also differs little from it in other respects. Thus, the mesmerists stated that all were not susceptible to the influences referred to, and described those who were as "sensitives." The Salpêtrière School say the same thing, but call their sensitives "hysterical." Again, both Schools regarded the influence as a purely physical one, which could be exerted without the knowledge and against the will of the subject. There is one important difference, however, between the later mesmerists and the Charcot School. Elliotson knew nothing about suggestion; thus, his errors were excusable and almost unavoidable. When Charcot started his researches. not only had Braid already demonstrated as fallacious all the errors Charcot and his followers adopted later, but Liébeault also had pointed out the influence of suggestion, and how, through ignorance of its powers, false conclusions were sure to be drawn. Despite this, Elliotson's pioneer work brought upon him bitter attacks and threatened ruin, while Charcot's fallacies did not injure the reputation he had established in other departments of science.

2. The automatism theory. — At first Braid regarded mesmeric trance as an artificially induced sleep; he called this "hypnosis," and invented the terminology we still use. Later, observing that only 10% of those who recovered under suggestive treatment passed into a state even superficially resembling sleep, he proposed to abolish

his entire terminology. The public, he said, had accepted the idea that artificially induced sleep must precede cure, and he found this preconceived idea had to be removed before they responded to suggestion.

In 1847, Braid stated that the so-called hypnotic condition was one of mental concentration; the mind, engrossed with a single idea, was indifferent to other influences. This monoideism was brought about by a physiological and psychological inhibition; the activity of certain nerve centres was suspended, owing to the monotonous stimulation of others, and this had its psychological equivalent in the interruption of the voluntary association of ideas. This explanation was accepted and elaborated by Professor John Hughes Bennett, in 1851.

Bennett's physiological theory. — Hypnosis, according to Bennett, was characterised by alterations in the functional activity of the nerve cells of the white matter of the cerebral lobes. A certain proportion of these became paralysed through continued monotonous stimulation; while the action of others was consequently increased. As these tubes connected the cerebral ganglion-cells, suspension of their function was assumed to bring with it interruption of the connection between the ganglion-cells.

Bennett's psychical theory.—From the psychical side, Bennett explained the phenomena by the action of predominant unchecked ideas. These obtained prominence because other ideas, which in ordinary circumstances would have controlled their development, did not arise; the portion of the brain with which the latter were associated had its action temporarily interrupted, *i.e.* the connection between the ganglion-cells was broken, owing to the suspended action of the "fibres of association." Memory of a sensation could always be recalled; but, in ordinary circumstances, from the exercise of judgment, comparison, etc., we knew it was only a remembrance. When these were not exercised, the suggested idea predominated and the individual believed in its reality. Thus, the faculties of the mind, as a whole, had the power of correcting the fallacies into which each might fall; just as the illusions of one sense could be corrected by the healthy use of others. There were mental and sensorial illusions : the former caused by predominant ideas, and corrected by proper reasoning; the latter caused by perversion of one sense and corrected by the right application of others. In hypnosis, according to this theory, a suggested idea obtained prominence, and excited mental and sensorial illusions, because the check action—the inhibitory power—of certain higher centres had been temporarily suspended.

This explanation was one which Braid later emphatically repudiated, increased knowledge having caused him to change his views. Despite this, although its terms have varied, it has, till recently, been the usual explanation of hypnotic phenomena. If we join Heidenhain's purely physiological theory to Bernheim's purely psychical one, we obtain a reproduction of Bennett's two theories.

Bernheim's theory .- The whole nervous force of the subject, according to Bernheim, is fixed upon a single idea; this concentration may be changed from one point to another by the suggestions of the operator; but the focus alone shifts its place and concentration continues. In the normal state we are subject to errors, illusions and hallucinations-sometimes spontaneous, at others suggested to us and accepted unchallenged. There is also a tendency to receive and respond to suggested ideas ; these, however, are questioned before being accepted or rejected. In hypnosis, on the other hand, there exists a peculiar aptitude for transferring the suggested idea into an act. This is done so quickly that the intellectual inhibition has not time to prevent it; when it comes into play the idea has already been translated into its physical equivalent. If consciousness follows the suggested act, it is too late to interfere with its fulfilment.

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Bennett regarded the phenomena of hypnosis as the result of a definite physical change in the subject; Bernheim, on the other hand, attempts to explain them by an analogy between these phenomena and those of the normal state, and by means of suggestion.

According to Bernheim, hypnotic phenomena are analogous to normal, automatic, involuntary and unconscious acts; and natural and artificial sleep are identical. If any distinction exists, this can be explained by suggestion. The normal and the hypnotised subject are both influenced by it; but, as it has been suggested to the latter that he should become more responsive, a peculiar aptitude for transforming the idea into an act has been artificially developed.

Heidenhain's theory.—This is a type of the purely physiological one: the phenomena being explained by the arrested activity of the ganglionic cells of the cerebral cortex. These cells are supposed to be inhibited by the monotonous stimulation of other nerves, *i.e.* by fixed gazing, passes, etc.; and sensory impressions which usually produce movements after passing to the higher centres and evoking consciousness are now said to do so by going directly to the motor centres. This is essentially a "short-circuiting of nervous currents" theory. The hypnotised subject is a pure automaton, who imitates movements made before him, but is quite unconscious of what he does.

Some other modern theories are based on a supposed cerebral inhibition. For example, Sidis, in the "Psychology of Suggestion," asserts that in hypnosis there is "a functional dissociation between the nerve-cells. The association-fibres, that connect groups into systems, communities, clusters and constellations, contract. The fine processes of the nerve-cells, the dendrons, or the terminal arborisation, or the collaterals that touch these dendrons, thus forming the elementary group, retract and cease to come into contact." He further discusses which association-fibres give way first, and whether the neuraxon is contracted as a whole, or the fibrillæ alone contract, and so withdraw the terminal arborisations for minute distances.

Dr. William McDougall, in his paper entitled "The State of the Brain during Hypnosis" (*Brain*, Part exxii., vol. xxxi., 1908), expresses the view that the main distinction between the dissociation of sleep and that of hypnosis is that, in the latter state, the monotonous stimulation of a sensory organ tends to keep a minor disposition in dominant activity as a path of neurokymic discharge, thus draining off the general supply of neurokyme. At the same time the operator, by his passes and suggestions, keeps a path of ingress open, a system active and waking, by which channel ideas may be invoked, accepted and acted upon by the rest of a sleeping and uncritical mind.

All this might be of interest if it were related in any way to the subject in dispute. The phenomena of hypnosis, however, which demand explanation-increased volition, memory, intelligence and other evidences of self-control of the organism-are just the exact opposite of those which have been supposed to be invariably present in that condition. Hence, theories, no matter how elaborate or learned in terminology, are valueless, when founded upon imaginary mental states, the existence of which is simply assumed by the operator. What does it matter whether lack of consciousness, loss of memory or automatic action, be produced by interruption of association-fibres, arrested action of ganglionic cells of the cerebral cortex, retracted dendrons or disconnected neurons, or even by "inhibition of the amœboid movements in the pseudopodic, protoplasmic prolongations of the neuro-spongium,"1 if the problems we are dealing with actually involve an increase of intelligence, consciousness, volition and memory?

3. The theory which attempts to explain the phenomena of hypnotism by the intelligent and voluntary

¹ Rückardt's theory, afterwards elaborated by Lépine, Golgi, Ramon y Cajal, Duval and Lugaro.

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action of a secondary or subliminal consciousness.—This, instead of explaining hypnosis by the arrested action of some of the brain centres which subserve normal life, attempts to do so by assuming the arousal of certain powers over which we normally have little or no control. The principle on which the theory depends is admitted by science. William James, for example, says : "In certain persons, at least, the total possible consciousness may be split into parts, which co-exist, but mutually ignore each other."

Before discussing this theory, I wish to draw attention to some of Braid's later views, when he had ceased to believe in involuntary monoideism and asserted that volition was absolutely unimpaired in hypnosis-not only could the subject successfully resist attempts to hypnotise him against his will, but, when hypnotised, would also reject suggestions disagreeable to him. The moral sense was raised, not lessened : it was impossible to make a hypnotised subject commit a crime, or even do anything which involved indelicacy. Braid recognised the complexity of the so-called hypnotic condition, and the fact that it was often characterised by physical and mental activity. He taught some subjects Greek, Latin, French and Italian during hypnosis, and found that they had forgotten it all in the normal state; on being re-hypnotised the lost memories returned spontaneously. He described this condition as "double consciousness." These later views attracted no attention, and when Myers published his theories no one seemed to be aware that they had been forestalled. Braid's work is all the more remarkable as he had no scientific forerunners, and evolved his theories out of the mesmeric superstitions of his day.

Another worker in the same field ought not to be forgotten. Carpenter's "unconscious cerebration" theory dealt with phenomena similar to those Myers described : the difference between the two being that, while Carpenter regarded this particular form of intellectual activity as unconscious, Myers believed that it was carried on consciously, but apart from normal consciousness.

According to Carpenter, much of our intellectual activity —both reasoning and imaginative—was essentially automatic, and might be described physiologically as the reflex action of the cerebrum. There was a further question, namely, whether this action might not take place unconsciously. The view had been held by German metaphysicians, from Leibnitz onwards, that the mind might undergo modifications, without being itself conscious of the process until the results presented themselves to the consciousness in the new ideas the process had evolved. This "unconscious cerebration," taking place in the higher sphere of cerebral activity, had its parallel in automatic acts, when the latter occurred while the attention was diverted from them.

As an example of this unconscious mental activity, Carpenter cited the spontaneous remembrance of some name. we had vainly tried to recollect. This suddenly flashed into: consciousness when we were thinking of something different, or had just awakened from sleep. In the first case, the mind was engrossed with other ideas, and we could not detect any link of association by which the result had been obtained, although we could remember the whole "train of thought" which had passed through the mind in the interval. In the second place, the missing idea was more likely to present itself after profound than disturbed sleep. So familiar is this phenomenon that we are accustomed in similar straits to say, "Never mind, I shall think of the missing word by and bye"; and we deliberately turn away, just as if we possessed an obedient secretary whom we could order to hunt it up while we were otherwise occupied. The more this common phenomenon is studied, the more the observer of his own mental processes will be obliged to concede that, so far as his own conscious self is concerned,

the research is made absolutely without him. He has neither pain, pleasure, nor sense of labour in the task, and his conscious self is all the time suffering, enjoying or labouring on totally different ground.

In speaking of the same phenomenon, the late Dr. Wendell Holmes said that the idea we were seeking came all at once into the mind, delivered like a prepaid parcel at the door of consciousness, or like a foundling in a basket. How it came there, we do not know. The mind must have been at work, groping and feeling for it in the dark ; it could not have come by itself. Yet, all the while, our consciousness, so far as we were conscious of our consciousness, was busy with other thoughts. Carpenter said that he was in the habit of trusting to this method, and found he was much more likely to recover his lost memories in this way than by consciously searching for them.

In the phenomena observed with "talking tables" and "planchettes," ideas which had passed out of the conscious memory sometimes expressed themselves in involuntary muscular movements, to the great surprise of the individuals executing them. Generally the answers given in this way only expressed ideas consciously present in the minds of the operators. True answers were, however, sometimes given to questions, notwithstanding that there might be entire ignorance (proceeding from complete forgetfulness) of the facts, or absolute disbelief in the statement of them. These results, which were falsely attributed to "spiritual" agency, were really due to the revival of lost impressions, which now disclosed their existence through the automatic motor apparatus.

Carpenter, again, asserted that there were cases in which two distinct trains of mental action were carried on simultaneously—one consciously, the other unconsciously; the latter guided the movements, which might express something quite unrelated to the subject that was entirely and continuously engrossing the attention. In support of

this he quoted the following passage from Miss Cobbe :---"Music-playing is of all others the most extraordinary manifestation of the powers of unconscious cerebration. Here we seem to have not one slave but a dozen. Two different lines of hieroglyphics have to be read at once, and the right hand has to be guided to attend to one of them, the left to another. All the ten fingers have their work assigned as quickly as they can move. The mind, or something which does duty as mind, interprets scores of A sharps and B flats and C naturals into black ivory keys and white ones, crotchets and quavers and demisemiquavers, rests, and all the other mysteries of music. The feet are not idle, but have something to do with the pedals, and, if the instrument be a double-action harp (or an organ), a task of pushings and pullings more difficult than that of the hands. And all this time the conscious performer is in a seventh heaven of artistic rapture at the results of all this tremendous business, or perchance lost in a flirtation with the individual who turns the leaves of the music-book."

Carpenter received the following account of another form of unconscious cerebration from a bishop :—"I have for years been accustomed to act upon your principle of 'unconscious cerebration,' with very satisfactory results. I am frequently asked to preach occasional sermons; and I am in the habit of setting down and thinking over the topics I wish to introduce, without in the first instance endeavouring to frame them into any consistent scheme. I then put aside my sketch for a time, and give my mind to some altogether different subject; when I come to write my sermon, perhaps a week or two afterwards, I very commonly find that the topics I set down have arranged themselves, so that I can at once apply myself to develop them on the plan in which they present themselves before me."

In the following example, given by Wendell Holmes, the individual was conscious of the flow of an undercurrent of mental action, although this did not rise to the level

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of distinct ideation: A business man, who had an important question under consideration, gave it up for the time as too much for him. Immediately afterwards he was conscious of an action going on in his brain, which was so unusual and painful as to excite his apprehensions that he was threatened with paralysis. After some hours of uneasiness, his perplexity was all at once cleared up by the solution of his doubts coming to him—worked out, as he believed, in that obscure and troubled interval.

According to Wendell Holmes, it is doubtful whether the persons who think most—that is, have most conscious thought pass through their minds—do most mental work. The tree you plant, he said, grows while you are sleeping. So with every new idea that is planted in the real thinker's brain : it will be growing when he is least conscious of it. An idea in the brain is not a legend carved on a marble slab : it is an impression made on a living tissue, which is the seat of active nutritive processes. "Shall the initials I carved in bark increase from year to year with the tree," he asked, "and shall not my recorded thought develop into new forms and relations with my growing brain?"

Carpenter believed that the same mode of unconscious action had a large share in the process of invention, whether artistic or poetical, scientific or mechanical. When inventors were stopped by some difficulty, the tangle was more likely to unravel itself if the attention were completely withdrawn from it, than by any amount of continued effort. They kept the desired result strongly before their attention in the first instance, just as we did when we tried to recollect something we had forgotten, by thinking of everything likely to lead to it; but, if they did not succeed, they then put the problem aside for a time and gave their minds to something else. Later, just what they wanted "came into their heads."

Somewhat similar views are also expressed by Professor

Beaunis: the cerebral activity, at a given instant, represents a collection of sensations, ideas and memories; of those, some alone become sufficiently conscious to enable us to perceive them clearly and precisely, while the remainder pass without leaving durable traces. In a series of cerebral acts a certain number of intermediate links frequently escape us, and it is probable that the greater number of mental phenomena take place without our knowledge. Sensations to which we do not pay any attention may nevertheless excite cerebral action, and originate ideas and movements of which we afterwards become conscious. Our brain works with an activity of which we are unable to form an idea; and the facts of consciousness are only feeble fugitives from this mysterious work. Hypnotic phenomena are examples of this subconscious cerebration.

Delbœut's theory .- In the hypnotic state the mind is in part drawn aside from the life of relation, while at the same time it preserves its activity and power. Voluntary attention can be abstracted from the outer world and directed with full force upon a single point, and the hypnotic consciousness is thus able to put in movement machinery which the normal consciousness has lost sight of and ceased to regulate. It may be able to act, not only on the reflexes, but also on the vasomotor system, the unstriped muscles, the apparatus of secretion, etc. If a contrary opinion has prevailed, this is because observation has been exclusively directed to the normal exercise of the will. It can, however, in the hypnotic state, regulate movements which have become irregular, and assist in the repair of organic injuries. In a word, hypnosis does not depress but exalts the will, by permitting it to concentrate itself upon the point where disorder is threatened.

By this theory Delbœuf attempted to explain the mechanism of the inverse action of the moral on the physical, which was sometimes, in his opinion, almost, if not quite, equal to that of the physical on the moral.

The following is one of the most interesting of the experiments upon which he formed his conclusions. The subject, J----, was a healthy young woman, who had for several years been one of his servants. Delbœuf first explained what he wished to do and obtained her consent in the waking state; then he hypnotised her and extended her arms upon a table, heated red-hot a bar of iron, eight millimetres in diameter, and applied it to both of them, taking care that the burns should be identical in duration and extent, while at the same time he suggested that she should feel pain in the left arm alone. The operation was performed at seven o'clock in the evening, and immediately afterwards each arm was covered with a bandage. During the night J—— had pain in the left arm, but felt nothing in the right. Next morning Delbœuf removed the bandages; the right arm presented a defined eschar, the exact size of the iron, without inflammation or redness; on the left was a wound of about three centimetres in diameter, with inflamed blisters. Next day the left arm was much worse and J--- complained of acute pain; Delbœuf hypnotised her and removed the pain by suggestion. The wound dried and inflammation rapidly disappeared.

In Delbœuf's opinion the persistent belief that one is suffering from disease may ultimately cause disease; and, in the same way, the conviction that a morbid condition does not exist may contribute to its disappearance. He considered that the organic changes, in the case of $J_{---,}$, were not alone due to the burn itself, but were also partly caused by the patient's consciousness of pain. The absence or presence of pain may, to a greater or lesser extent, influence vasomotor conditions. On the one hand, organic injury, unassociated with pain, may not be followed by congestion, inflammation or suppuration, while in an identical injury, accompanied by pain, these conditions may be present. The consciousness of pain, in addition to being sometimes responsible for morbid changes at the site of

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injury, may also help to spread them to other parts more or less remote, and thus, when pain is removed or relieved, this really means the disappearance or decrease of one of the factors of the organic malady.

Myers' theory .- The clearest statement of the secondary consciousness theory was given by Frederic Myers; he suggested that the stream of consciousness in which we habitually live is not our only one. Possibly our habitual consciousness may be a mere selection from a multitude of thoughts and sensations, some at least equally conscious with those we empirically know. No primacy is granted by this theory to the ordinary waking self, except that amongst potential selves it appears the fittest to meet the needs of common life. As a rule, the waking self is remembered in hypnosis, but the hypnotic self is forgotten in the waking state; this destroys any claim of the primary memory to be the sole memory. The self below the threshold of ordinary consciousness Myers termed the "subliminal consciousness," and the empirical self of common experience the "supraliminal." He held that to the subliminal consciousness and memory a far wider range, both of physiological and psychical activity, is open than to the supraliminal. The subliminal or hypnotic self can exercise over the nervous, vasomotor and circulatory systems a degree of control unparalleled in ordinary life.

Myers did not consider the subliminal self free from disease any more than the supraliminal; subliminal disturbances might arise and make themselves felt in the supraliminal being. He drew attention to the analogy which existed between the changes in the nervous, vasomotor and circulatory systems which occur in hypnosis and those presented by hysteria. Hysterical phenomena were produced by self-suggestions of an irrational and hurtful kind; they were diseases of the hypnotic substratum. Hypnosis was not a morbid state; it was the manifestation of a group of perfectly normal, but habitually subjacent

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powers, whose beneficent operation was seen in cures by therapeutic suggestion, its neutral operation in ordinary hypnotic experiment, and its diseased operation in the vast variety of self-suggested maladies.

According to Myers, works of genius, instead of being the result of an "infinite capacity for taking trouble," were due to the intelligent action of a secondary consciousness. The labour was performed in a "subterranean workshop," as it were, and then presented in completed form to the normal consciousness. The latter not only believed that it had done the work itself, but thought that this had been performed instantaneously.

This view practically reproduced that of Carpenter, as to the origin of what he termed invention. The incursion of the inspiration into the normal consciousness is often sudden and startling. While the subject of it undoubtedly believes that he—*i.e.* his ordinary waking self—originated it, he, at the same time, often acts as if it were something unconnected with his usual stream of consciousness. He feels that the inspiration may escape him, and with feverish haste tries to record it with pen, pencil, or brush.

The time-appreciation experiments, already cited (pages 98-117), furnish one of the most striking instances of double consciousness with which I am acquainted. Further, the fact that nothing could be recalled by the ordinary hypnotic self regarding calculations which must inevitably have been made in some form of hypnosis, apparently showed that the subject possessed a third substratum of the personality. This view is also held by Professor William James, who wrote me as follows:—"Miss A——'s case is most extraordinary. I agree entirely with you that a 'third self' must be involved, but what such a third self in its totality may signify, I haven't the least idea."

The solution of a dressmaking problem in the hypnotic state (page 123) is also an interesting example of the spontaneous action of the hypnotic self. Further, it illustrates

experimentally the probable origin of the inspirations of genius and the way in which they reach the normal consciousness. Miss A----, in her waking state, was striving after a result which she could not obtain, just as an inventor or artist might have done. Later, when she was again in the waking state, and thinking of something else, the solution of the problem came suddenly into her mind. She thought she had solved it there and then. Questioning in a subsequent hypnosis, however, quite accidentally revealed the following facts: (1) She had worked out the problem when profoundly hypnotised, her condition at the time apparently resembling deep sleep. (2) On awaking, she knew nothing of what she had done, and it was only some hours afterwards that the uprush into ordinary consciousness occurred. (3) This uprush brought with it no knowledge of its origin, i.e. her waking self knew neither then nor afterwards whence the inspiration had been derived. (4) When again hypnotised, she recalled that the problem had been present in her mind during hypnosis. She remembered having solved it, and also that her primary consciousness was ignorant of the fact. Further, she knew the exact moment at which the uprush had taken place, and was evidently amused at the primary consciousness claiming as its own the work done by the secondary one.

Many cases of alternating consciousness have been observed in the non-hypnotised subject. As a rule this has been associated with hysteria, or some other morbid condition. Sometimes the primary waking state has been morbid, the secondary one comparatively healthy. Of this class, Félida X., so ably described by Dr. Azam, is the familiar example. At the age of fourteen and a half, Félida began to have attacks of sharp pain in both temples, followed by profound stupor which lasted ten minutes. She then spontaneously opened her eyes and appeared to awake, but in reality passed into a condition of secondary consciousness. This

lasted for an hour or two, then the stupor and sleep reappeared, and she passed into her ordinary waking state. The secondary state differed markedly from the primary one. In ordinary life she was a miserable, querulous, hysterical invalid, and remembered nothing of her secondary life, which was superior, both intellectually and physically, to the primary one. In the secondary state she was gay, active and intelligent; and remembered not only all the events which had taken place in former attacks of secondary consciousness, but also those of normal life. As time went on, the frequency of the secondary attacks became greater and their duration longer, till, at the age of 24, they commenced to exceed the periods of normal life. From 24 to 27 years of age she remained in the normal state; then the secondary attacks became more and more frequent, and, finally, almost completely occupied her entire existence. In 1875, Félida, who was then 32 years of age, told Azam that she still suffered from attacks associated with loss of memory. These so-called "attacks," however, were simply lapses from her secondary consciousness into her ordinary primary one. Thus, once when returning from a funeral, she felt her attack-i.e. her normal state-come on. She became unconscious for a few seconds without her companions noticing it; then awoke in the primary state, absolutely ignorant of the reason for which she was in a mourning coach. Accustomed to these accidents, she waited till, by skilful questions, she was able to grasp the situation, and thus none of those present knew what had happened. Later, she lost her sister-in-law after a long illness, and, during a relapse into the normal state, knew nothing about the death, and only guessed at it from the fact that she was in mourning. In the earlier periods of her life the transition from one state to another was marked by a state of more or less prolonged unconsciousness. As time went on this diminished, and, finally, the loss of consciousness became

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so brief that Félida was able to disguise it. In 1887, when Azam published the account of the case, Félida was 44 years of age, and her lapses into normal life had become more and more rare.

The works and papers of Edmund Gurney, Frederic Myers, A. T. Myers, Pierre Janet, William James, and many others have rendered us familiar with the phenomena of secondary or multiple consciousness in hypnosis. Further, it can be experimentally demonstrated not only that the hypnotised subject possesses a secondary consciousness, which alternates with his primary one, but also that it is possible for the two to coexist and to manifest different phenomena simultaneously. For example, as we have seen, an individual may have his attention concentrated upon the act of reading aloud from a book, with which he was previously unacquainted, and, at the same instant, he may be writing automatically-as far as his primary consciousness is concerned-the result of a problem, suggested to him in hypnosis the moment before that state was terminated. The primary waking consciousness retains no recollection of the hypnotic suggestion ; does not know that the secondary consciousness, after the hypnotic state has terminated, first solves the problem and then directs the motor acts which record it; and is also unconscious of the motor acts themselves.

The following is a summary of the phenomena which indicate the existence of a secondary consciousness :---

1. In normal life. (a) Involuntary. The sudden remembrance of a lost name when we have ceased to try to find it. Awaking at a fixed hour, as described by Dr. George Savage and Professor Marcus Hartog (pages 124-26). The inspirations of genius, when these have occurred suddenly and spontaneously.

(b) Voluntary. The recovery of lost names and the like; when we *deliberately* turn away from the fruitless search and expect the secondary consciousness to perform

the work for us. Cases like that of the bishop who made sketches of his sermons, put them out of his mind for a week or two, and called on his secondary consciousness to fill in the details for him (page 149). Complicated acts, such as playing the piano, performed while the attention is consciously and voluntarily directed into another channel.

2. In so-called hypnosis, and in conditions resembling it in essence, although no sleep-state has been developed. Here we have hypnotic and post-hypnotic appreciation of time, automatic writing, curative results obtained by influencing physical conditions which are beyond the control of the ordinary will—menstruation, secretion of milk, etc.

3. In disease. Cases of alternating personality, where the secondary one is on a lower mental and physical plane than the primary, fall under this head, but the commonest examples are the self-suggested maladies grouped under the head of hysteria.

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CHAPTER IX

METHODS

Classification of Methods of inducing Hypnosis: (1) Physical, (2) Psychical, (3) Those of the Mesmerists—Braid's Methods— Liébeault's — The Author's Earlier Methods — His Present Methods.

Modes of inducing hypnosis. — These have been classed as: (1) physical; (2) psychical; (3) those of the mesmerists.

The modern hypnotist, however, whatever his theory, borrows his technique from Mesmer and Liébeault with equal impartiality, and so renders classification impossible. Thus, the members of the Nancy School, while asserting that everything is due to suggestion, do not hesitate to use physical means. The passes with contact employed by Mesmer were reproduced by Wetterstrand. Fixed gazing generally precedes or accompanies suggestion, and, when such devices fail, Bernheim does not scruple to use narcotics. It is more than doubtful whether physical methods ever succeeded, when mental influences had been excluded and the subjects were absolutely ignorant of the nature of the experiment. No one was hypnotised by looking at a revolving lark-mirror till Luys borrowed that lure from the bird-catchers and invested it with hypnotic power. On the other hand, any physical method will succeed with a susceptible subject who knows what is expected of him.

Braid's method.—Braid took a bright object, generally his lancet-case, held it in his right hand about a foot from the patient's eyes, and at such a distance above the forehead that it could not be seen without straining. The

patient was told to look steadily at it and to think of nothing else. The operator then extended and separated the fore and middle fingers of the right hand, and carried them from the object towards the patient's eyes. The lids generally closed involuntarily; if this did not happen the process was repeated, and rarely failed.

Later, as Braid found that fixed gazing was frequently followed by slight conjunctivitis, he changed his methods: prolonged staring was abandoned, and the patient instructed to close his eyes at an early stage of the proceedings. Hypnosis was induced as easily as before and without unpleasant symptoms. If the body and mind were at rest, Braid found he could hypnotise as readily in the dark as in the light, and he also succeeded with the blind ; these facts induced him to abandon his physical theory and to conclude that the influence was exerted through the mind. He observed that repeated hypnoses increased susceptibility; this arose from habit, association of ideas and imagination. In such cases, if the patients believed something was being done which ought to produce hypnosis, the state appeared. On the other hand, the most expert hypnotist would exert his influence in vain if the patient did not know what was expected and, at the same time, voluntarily yield to the demands of the operator. Later, Braid asserted that direct verbal suggestion was the best method for inducing hypnosis and its phenomena; physical methods were simply indirect suggestions, their influence depending upon the mental states they excited.

Liébeault's method.—The following was Liébeault's method, as I witnessed it at Nancy:—The patient was placed in an arm-chair, told to think of nothing and to look steadily at the operator. This fixed gazing was not maintained long enough to tire the eyes; it was simply an artifice for arresting the attention. If the eyes did not close spontaneously, Liébeault told the patient to shut them, and made the following suggestions:—"Your eyelids are

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getting heavy, your limbs feel numb, you are becoming more and more drowsy," etc. This was continued for a minute or two; then Liébeault placed his hand upon the patient's body and suggested the sensation of local warmth.

The Author's methods.—These have varied widely. At first I attempted to induce hypnosis mainly by mechanical means : at that time I was ignorant of what had been written by Liébeault, and had not observed the methods of others.

After seating the patient in a comfortable chair, I arranged a small movable mirror above his eyes, placed a lamp in such a way as to throw the light upon it, and told him to look fixedly at the mirror as long as he could. Sometimes the eyes closed rapidly and hypnosis followed; in others, even after half an hour's gazing, there was no result. When this happened, I asked the patient to shut his eyes, and then made passes and suggestions. Hypnosis was induced in every instance, but sometimes much perseverance was necessary, and in one case success was only obtained at the sixty-eighth attempt. At that time the patients were all drawn from my own practice, and the induction of hypnosis, which at first had often been tedious and difficult. became easier with increased experience, and mechanical means were gradually discarded. I held a clinic three times a week, and hypnotised from thirty to sixty patients in an evening. I passed rapidly from one to the other, saying to each in turn: "Look at my eyes! Your eyelids are getting heavy, you cannot keep them open; they are closing now, they are fast !" As the eyelids closed, which they almost invariably did at once, I made an energetic pass in the direction of the patient's face and said, "Sleep !" With two exceptions, success was obtained in every case, and in nine out of ten in the time necessary to utter the words just quoted. The patients were still nearly all drawn from my own practice, but, unlike my earlier cases, few suffered from severe illness, and many were hypnotised for operative purposes only.

Shortly after my demonstration of hypnotic anæsthesia at Leeds, on March 28th, 1890, a different class of patients consulted me. Most suffered from neurasthenia, hysteria and the like, but, in addition, there were many cases of dipsomania and some of insanity. In all, the illness was of long duration and other methods of treatment had failed. To my surprise and disappointment, a small percentage alone were hypnotised by the method so successfully employed with my own patients. At first, fresh cases were treated with others already hypnotised; but this, instead of aiding me as formerly, increased my difficulties, as the new patients found the presence of others a disturbing element. Each patient was then taken singly, and fixed gazing at a mirror in a darkened room again resorted to: or I made them look at my eyes while I gave verbal suggestions. I also procured one of Luys' revolving mirrors, but found it worse than useless. The instrument, driven by clockwork, could not be stopped until it ran down, and its speed could not be regulated. It made a loud and disagreeable noise, which at times became more marked and irregular, suggesting an "infernal machine" on the point of exploding ! I had another constructed without these faults : it also was driven by clockwork, but could be stopped at any time and its speed regulated, while the sound was uniform and soothing. I succeeded with it in easy cases, such as could have been hypnotised in any other way, but it was no help in difficult ones. By one or other of these methods I hypnotised about 75 % of my patients, but, in many instances, only after repeated trials. After a time, mechanical means were again abandoned, and I relied on verbal suggestion and careful study of the patient's mental condition.

Before describing my later methods, I wish again to draw attention to several points in connection with the so-called hypnotic state. As we have seen, the subject may have his eyes open, and act like a normal individual who is

awake. In the lethargic condition, when he appears to be asleep, he still hears all that is said around him. Further, all the phenomena of so-called hypnosis can be induced in the waking state, without the patient having preliminarily passed through any condition resembling sleep. It is to Braid's earlier work that we owe the theory that it was necessary to induce hypnosis before beginning treatment by suggestion. At first he regarded the condition as an artificial sleep, but pointed out later that only one in ten of those he cured passed into a state even superficially resembling sleep. He proposed, therefore, to abolish his entire terminology, as it misled the public, and made them believe they could not be cured by suggestion unless they had first been put to sleep. With the majority of Braid's patients there was not even an apparent loss of consciousness-they simply became slightly drowsy, and afterwards remembered all that had happened-while, with others, hypnotic phenomena were induced, without any previous stage in any way resembling sleep. Further, in those cases where sleep had apparently been present, it could be proved that the condition was really a conscious one, as the recollection of all that had occurred could be evoked by suggestion.

Braid's later observations passed unnoticed, and, until recent times, nearly all operators proceeded on his earlier lines. They suggested artificial sleep, lethargy or drowsiness, and then began treatment. They did not recognise that the artificial or, more correctly speaking, imitation sleep was only one of the phenomena of increased suggestibility, due to suggestion. Given increased suggestibility, any of the phenomena of hypnosis might be evoked as readily as imitation sleep, and the patient cured just as easily when that state had been omitted.

For many years, Liébeault's methods were similar to Braid's earlier ones, and he always tried to induce what he called *sommeil provoqué*. Gradually the views of the

Nancy School were modified till they resembled Braid's later theories. Now, Bernheim states that there is nothing in hypnotism but the name. All is "suggestion," and patients can be cured without the induction of artificial sleep. Bernheim's statement requires some modification : all the phenomena we have been accustomed to call hypnotic are undoubtedly the result of suggestion ; but the suggestions must be accepted by the patients before the phenomena can be evoked.

The essence of the whole condition, then, is an increased suggestibility; the production of a preliminary imitation sleep is not necessary, and is simply waste of time. In some instances, I tried to induce so-called hypnosis a hundred times before I succeeded. Now, with the method I shall presently describe, I commence curative treatment at once, and obtain quicker results.

Lest my readers may be confused by my asserting, on the one hand, that the hypnotic state—i.e. a condition of sleep-does not really exist, and, on the other, by my talking of inducing hypnosis, I will summarise my views. Every stage of the so-called hypnotic condition is a conscious one. In some instances the subjects have their eyes open and are obviously wide awake, in others their eyes are closed and they appear to be asleep; but, even in the most profound condition, the sleep is only apparent, not real, as the subjects retain consciousness, volition and intelligence. The condition described as the hypnotic is essentially one of increased suggestibility. The artificial or imitation sleep, suggested by the operator, is only one amongst the many phenomena which can be evoked by suggestion. In what is described as the deepest stage—i.e. hypnotic somnambulism, followed by amnesia-when the state is terminated the patients believe they have been asleep, because they do not remember what has happened. This is equally true, whether they have been apparently asleep, or seemingly awake with their eyes open in the "alert" stage. The lost memories of both

stages can always be recalled in subsequent hypnosis. Further, it is probable that the amnesia is an artificial one due to the suggestions of the operator. When I use the word hypnosis-and it is almost impossible to avoid doing so until this fresh conception of the condition is accepted-I only mean that I have tried to induce increased suggestibility by methods which I shall presently describe. The condition-i.e. increased suggestibility-is sometimes preceded by drowsiness, but this is often absent, and the patients are voluntarily thinking of some restful monotonous subject during the whole process. Sometimes the patients' minds are filled with the melancholy thoughts of neurasthenia, or obsessional fears; at others their attention is fixed on their hysterical convulsions or other uncontrollable muscular movements; but, despite this, increased suggestibility is frequently induced. Here there has been neither imitation sleep nor restful monotonous thought, but, nevertheless, brilliant therapeutic results are often obtained in such cases. I will now describe my present methods. In many respects they resemble those I have used for years; the difference between them, more apparent than real, being due to what I believe to be a clearer conception of the socalled hypnotic state.

The selection of patients for treatment by suggestion, and the hope of relief or cure held out to them, ought naturally to be regulated by the same principles as those governing ordinary medical practice. Before treating by suggestion, the first duty of the physician is to make sure that the case is suitable. Patients occasionally consult me for maladies—generally obsessions—for which they have had no previous treatment; this, however, is quite exceptional, and my patients are almost invariably sent to me by other medical men. In most instances a careful diagnosis has been made, checked and confirmed by others; but, if there is any doubt, this ought to be thoroughly cleared up. For example, headaches supposed to be functional are

frequently due to local irritation, and I always refuse such cases until the eyes, throat and nose have been examined; in a considerable proportion local trouble is discovered, and its treatment is followed by the disappearance of the headaches. In one striking instance I was unsuccessful with a young man who, though active physically and fond of games, had lost all power of intellectual work. Later, I detected a nasal obstruction, hitherto unnoticed by myself and others, and sent him to Dr. Herbert Tilley. After operation, all his mental troubles disappeared, and he began to prepare for his university matriculation examination. Further, I refuse to treat patients who are insane, or on the borderland of insanity, unless the friends will allow me to have a consultation with an alienist, and only then if he considers the conditions are favourable.

All this refers to the question of a supposed functional malady being due to, or associated with, organic trouble. In a certain proportion of my cases, however, organic maladies undoubtedly exist. These patients are sent, not for cure, but because their medical men believe there is also a nervous element present, which may be benefited by suggestion. I always frankly explain to them that my treatment cannot cure them; all that I can hope to do is to remove or relieve some of the symptoms. I tell them that there is at most an overlying stratum of functional nervous disturbance, and that there is only a possibility, not a certainty, of this being removed by suggestion. As a rule, the patients sent to me have exhausted all ordinary methods. In these circumstances they come for treatment by suggestion solely, and receive that alone. If, however, all other methods have not been tried, and any of them appear likely to be of use, they are employed as well as suggestion. Further, in certain cases-insomnia, for example-where the patients are dependent upon narcotic drugs, these are not stopped until the curative effects of suggestion are able to replace them.

I rarely begin treatment the first time I see a patient. After having satisfied myself that the case is a suitable one, I make a careful study of the patient's mental condition, and do my best to remove everything—fears, erroneous preconceived ideas, etc.—which might stand in the way of success. This is an extremely important part of my work, which I shall discuss in the next chapter.

I then explain my methods to the patient; tell him about the secondary consciousness and its powers, and say : "Next time you come we shall not talk about anything until after treatment. You will sit down in an arm-chair and close your eyes. While you are resting I shall make suggestions of two kinds, but I do not want you to listen to them. You will always hear my voice, but I wish it to be a drowsy accompaniment to your restful thoughts. While I am making suggestions, try to concentrate your attention on some restful mental picture; its nature does not matter, as long as it is restful. This concentration is simply an artifice to turn your attention from my suggestions; the theory being that if your normal consciousness is absorbed in this way, the suggestions more easily reach the secondary one." I always frankly tell the patient that I cannot explain why suggestion, given in this particular systematised way, often produces results far exceeding those obtained by the suggestions of ordinary life. I also explain that I possess no occult power; that I am simply going to try to arouse forces that are latent in the patient's own brain, and, further, that I cannot promise to cure him, as, even if the case is suitable, much depends on his ability to carry out my instructions.

The first suggestions refer to the conditions which I wish to create while the patient is in the arm-chair. I tell him that each time he comes he will find it easier to rest, to turn his attention away from me and to concentrate it upon something restful. I have previously explained that I do not wish him to go to sleep, but that, if he can get into the

drowsy condition which precedes sleep, the suggestions are likely to be responded to more quickly.

The other suggestions are curative and vary with each different case. These are begun at the first treatment, and I tell the patient beforehand that I make them, not because I believe they will be at once responded to, although this does occur in rare instances, but because it is the repetition of the impression, made in this particular way, which gives it its power.

At first, the novelty of the proceeding usually attracts the patient's attention and prevents him turning his thoughts from my suggestions. After a few treatments, however, he is generally able to keep his attention on some restful mental picture, and often passes into a drowsy, day-dreamy state. Sometimes the condition apparently becomes one of slight natural sleep: the patient ceases to hear my voice for a moment or two, then drifts back to consciousness.

Formerly, not only did the operator attempt to obtain hypnosis, but he also tested its presence by suggesting to the patient that he was unable to open his eyes. Sometimes this succeeded, but if not, the suggestion was repeated until responded to. Doubtless the success of these and of other inhibitory suggestions helped to create the theory of hypnotic automatism, but, as I have frequently pointed out, hypnotic subjects never accept suggestions which are contrary to their moral sense. These experiments are objectionable, however, and I discarded them at a very early date, long before I changed my views as to the nature of so-called hypnosis. Although I suggested hypnosis, I never tested its existence by experiment. As the result of the methods I then used, the patients passed into a restful or drowsy condition and I made curative suggestions. The whole object of suggestive treatment ought to be, I repeat, the development of the patient's will-power, and of his control of his own organism. That idea, and that alone, should be instilled into his brain, and no experiment, however trivial,

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should be made which could possibly tend to make him believe that the operator was trying to dominate him.

The so-called hypnotic state tends to terminate spontaneously. The members of the Nancy School, who regard the condition as one of sleep, suggest during hypnosis that the subject shall awake at a given signal, as, for example, when the operator utters the word "Awake!" or counts "One, two, three." The nature of the signal itself is of little importance, the essential point being that the patient understands its import.

CHAPTER X

SUGGESTIBILITY, AND THE CAUSES WHICH INFLUENCE IT

 Mental Condition as influencing Suggestibility: General Intelligence; Volition and Attention; Faith; Self-suggestion; Behaviour of Spectators—2. Morbid Mental and Physical Conditions: Excitement and Fear; Insanity, Hysteria, etc. — 3. Difficulties arising from Nervous Disease: Attention; Duration of Illness; Self-suggestions—Processes involved in the Methods described —Curative Results due to Repeated Suggestions—Power of Suggestion—Importance of securing the Patient's Intelligent Co-operation.

In discussing this question, and quoting the opinion of others, it is impossible to avoid using the word hypnosis, but it must not be forgotten that this is only intended to imply a state of increased suggestibility, and not one of artificial sleep. I shall have here to recur to some points that have been touched upon in an earlier chapter.

1. Mental condition. — (a) General intelligence.— Gerster states that fools are the least susceptible to hypnosis, whereas the intelligent man, with well-balanced brain, is more or less easily influenced; Moll, also, finds the dull and stupid difficult; Krafft-Ebing and Bernheim hold similar views (the former states that intelligent subjects can be readily hypnotised, and the latter claims to have succeeded with many highly educated persons); while Forel asserts that every mentally healthy man is naturally hypnotisable. With these opinions I agree; for I have found the stupid and unimaginative more difficult to influence than those possessing fair intelligence.

(b) Volition and attention.—It is sometimes asserted

that feebleness of will facilitates the induction of hypnosis. This Moll declares to be erroneous: the subjects must be able to arrest their thoughts and direct them into a particular channel—an indication of strength, not weakness, of 'will. This opinion is shared by Krafft-Ebing and Forel, who state that subjects who cannot remain mentally passive, and who analyse their own sensations, are difficult to influence. Braid believed there was a direct relation between the power of concentrating the attention and susceptibility. Fixed gazing alone would not excite hypnosis ; the attention must be concentrated on something. Amongst my own patients, I have usually observed that strength of will and power of concentration favoured the induction of hypnosis, while their absence had an opposite effect.

(c) Faith.—Faith alone has apparently little effect on susceptibility. I have failed with subjects who believed they were specially susceptible : on the other hand, I have succeeded with many who were convinced they could not be influenced. Patients frequently say to me: "Don't think me rude, but you can't cure me. I know you have succeeded with others, and that is why my doctor has insisted upon my coming, but my case is hopeless and no power on earth can help me." Thus, treatment by suggestion is in no sense a "faith-cure."

(d) Self-suggestion.—A determination to resist the operator renders the induction of hypnosis impossible. Here, the failure is due to conscious self-suggestion. Some of my unsuccessful patients suffered from dipsomania, and afterwards confessed that they had resisted every attempt to influence them, as they had only agreed to be treated under pressure from their relatives. The involuntary self-suggestion of the patient is a still more common obstacle; but to this I shall refer when dealing with morbid states.

(e) Behaviour of spectators.—According to Moll, it is important that spectators should maintain silence and refrain from expressing doubt or mistrust in any way, as

the least word or gesture may thwart the attempts of the operator. For example, I was asked to hypnotise a patient suffering from long-standing nervous disease. His medical man, in introducing me, assured him that I had the power of compelling him to do whatever I liked, even to making him sign a cheque for £20,000 in my favour. Needless to say, I failed to hypnotise him. The third attempt was more promising; but, at its conclusion, the same medical man remarked to the patient that he was evidently one of those persons whom it was impossible to influence !

2. Morbid mental and physical conditions.-(a) Mental excitement and fear.-Fear, with its attendant mental excitement, usually prevents the induction of hypnosis. In England, at the present day, nearly everyone has read, and been more or less influenced by, various unfounded newspaper stories of the dangers of hypnotism. The public generally has accepted the misleading statement that hypnosis is characterised by unconsciousness and suspended volition; and, while patients are under the influence of these ideas, it is difficult or impossible to hypnotise them. In such cases, no attempt to induce hypnosis should be made at the first interview. The true nature of the hypnotic state should be explained, and the patient's fears removed. Above everything, he should be made to understand that he is not expected in any way to give up his own will. Forel, too, holds that mental excitement is unfavourable to the production of hypnosis and fear renders it impossible. Thus, he says, the first attempt to induce hypnosis frequently fails because the patient imagines that extraordinary things are going to happen to him if he yields to the influence.

(b) Insanity, hysteria, etc.—According to Bernheim, it is a mistake to think that the nervous, weak-brained, or hysterical are easy to influence; on the contrary, it is often difficult or impossible to hypnotise those suffering from mental disorders. Moll states that the hysterical are very difficult. This is largely due to the spirit of contradiction which exists in such patients, and the opposing selfsuggestions that result from it. It is now generally agreed that the mentally unsound, particularly idiots, even if not wholly insusceptible, are much harder to hypnotise than the healthy. Wetterstrand stated that one of the best somnambules he ever saw was remarkable for good health and freedom from nervousness. Further, he invariably found that the most difficult to influence were the hysterical, restless, and egotistical, who were unable to concentrate their thoughts and attention.

Gerster says that while the daily press echoes the statement that it is only the "credulous" and feeble-minded who can be hypnotised, the opposite is the fact. According to Forel, all experienced operators agree that the insane are undoubtedly the most refractory. With patience and perseverance, some of the milder forms of mental disorder may be influenced. + In grave insanity, however, owing to the continuous cerebral irritation, and the fact that the attention is fixed exclusively upon diseased ideas, it is almost impossible for suggestion to find an entrance into the mind. As we have seen, Esdaile's patients were regarded as hysterical, but he pointed out that hysteria was unknown in his hospitals. Braid found patients with very mobile brains difficult to influence, and entirely failed with idiots, despite much perseverance. My personal observations accord with these views.

3. Difficulties arising from nervous disease.— As the existence of nervous disease seems to lessen susceptibility to hypnosis, I propose to consider the different conditions, associated with these affections, which apparently interfere with success.

(a) Attention.—The condition of the attention in hysteria, neurasthenia and certain types of insanity forms a serious, though not insuperable, obstacle to the production of hypnosis. It is important, first, that the patient should

understand the operator's description of the phenomena of restfulness, etc., which it is desired to evoke, and, secondly, that he should be able to fix his attention on some monotonous train of thought. In the cases just referred to, this result is particularly difficult to obtain. The patient's attention is concentrated upon his own diseased condition, and he is constantly watching, analysing and exaggerating his symptoms. Sometimes, as in hysterical melancholia and certain forms of obsession, the patient is a prey to a continued flow of unhappy thought, which he is incapable of arresting. At others, the physical condition renders hypnosis difficult, since the various forms of hysterical tremor and spasm absorb the attention, and make mental quietude impossible. Pain is also an obstacle.

(b) Duration of illness.-Prolonged illness is undoubtedly unfavourable to the production of hypnosis. Here, the morbid symptoms have become ingrained, as it were, while the failure of all previous treatment has rendered the patients hopeless. At the time when my patients were all suitable ones, drawn from my own private practice, curative results were generally rapidly and easily obtained. During the last eighteen years, however, I can only recall two instances where the illness was of recent date when the patient came to me. One of them, a man of somewhat emotional temperament, but otherwise healthy, had some trouble of a sentimental nature and went to Paris for a holiday. On the evening after his arrival he went to the theatre with some friends and saw an actor play the part of an insane person. The idea instantly came into my patient's head that he himself was mad, and, when supping afterwards with his friends, he felt that they also were all mad. He recognised the absurdity of this, but at the same time was quite unable to get rid of the obsession. He did not sleep that night, and returned to London the following day. He at once came to see me, and told me that he had been repeating the multiplication table for hours in his vain endeavours to get

the obsession regarding insanity out of his head. He recovered after three treatments.

The other patient (Case No. 13, pages 28-29) had suffered from a delusion for only four months, and recovered after nineteen treatments.

The patients I now see have generally been ill for one or more years. In one case (page 71) sent by Dr. Risien Russell, the patient, aged 84, suffered from agoraphobia, and had been unable to cross a road without assistance for sixty-four years !

(c) Self-suggestions.-The conditions just referred to give rise to various forms of self-suggestion antagonistic to the operator. Thus, the failure of other forms of treatment excites the self-suggestion that hypnotism will also prove unsuccessful. The patients who are constantly analysing their own sensations are also self-suggestionists, only interested in themselves. One of my patients, for example, who had suffered from hysterical neurasthenia for twelve years, finally regarded all her symptoms as the result of medical treatment. Thus, pain in the head was due to galvanism, in another part of the body to massage-in fact, a number of localised painful regions were labelled with the names of the medical men who had attended her. Hypnotism was not more fortunate. Not only did fixed gazing speedily produce headache and nausea, but passes made behind the patient's back at a distance of 20 feet, though with her knowledge, frequently excited actual vomiting.

The constant morbid self-suggestions which are almost invariably present in neurasthenia render these patients very difficult to influence. In many instances they not only observe every sensation and function, but incessantly talk about them every moment they are awake. Some even record everything they regard as morbid, and the exact moment at which it occurred; then the following day sit, notebook in hand, awaiting its re-appearance. When

they come to me they do not wish to receive my suggestions, but only to describe their symptoms. While I am treating them they are bursting with impatience for me to stop speaking, in order that they may begin. Here, the first suggestion must be that the patient must cease to talk about himself. It must be clearly explained to him that he is maintaining his own disease, and that he cannot begin to get rid of morbid thoughts and sensations so long as he persists in describing them, as this is always presenting them more and more forcibly to his mind.

The patients who tell you the method by which they ought to be treated are hopeless, until you can convince them that you know more about your own special subject than they do. In earlier days, patients often refused to accept their medical man's advice to consult me, on the ground that they would not allow anyone to put them to sleep and deprive them of their will-power. Now, they sometimes say they wish to be treated by hypnotism and not by suggestion, and I often find it almost impossible to remove their preconceived ideas. Recently, a patient told me that she was sure I could not do her good unless I put her to sleep. I carefully explained to her all that I have already written about Braid's earlier errors, his later theories and those of others, and thought I had convinced her, as she was both educated and intelligent. After the first treatment she remarked : "I suppose I shall begin to improve as soon as you have put me to sleep." The explanation was again carefully and patiently repeated, and I lent her the typescript giving my recent methods and their explanation. Before her next visit, I received a letter from her saying, "Despite what you tell me, I think it would be better if you put me to sleep." Next time she came, instead of giving her a treatment, I again tried to convince her, and at last succeeded in finding an argument that appealed to her. I said : "Suppose you went to a surgeon who had been successfully performing

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a certain operation for twenty years and said, 'I wish you to operate on me, but not by your usual method. I want you to do it as it was done by another person sixty years ago.' If the surgeon," I said, "explained that the earlier operator had abandoned his method, after employing it for a short time only, and had adopted anothernow employed and improved by the man you were consulting-would you continue to make your request with these facts before you?" I had also carefully explained to the same patient the importance of turning her attention away from my suggestions, and concentrating it upon something restful, and this had been repeated as part of the suggestions given at each treatment. Despite this, after she had been coming for some time, she said : "I always listen to all your suggestions, they are so interesting !"

In cases of purely functional nervous disorder, such as neurasthenia, hysteria and the like, the previous medical treatment has sometimes apparently done more harm than good. The attention has been drawn to the various symptoms of the central nervous malady; these have been treated, maintained and developed, while the disease itself has been left untouched. In a recent case of neurasthenia, with intense depression and excessive morbid self-consciousness, the patient told me he had had slight dyspepsia for several years, and that this had been much worse during the last fifteen months. I found out that this aggravation had begun immediately after a consultation with a medical man who had directed his attention chiefly to the patient's stomach. He drugged him continuously, and put him upon a restricted, specially prepared dietary. The patient carefully followed this, and the indigestion grew worse and worse; when from home, and unable entirely to follow his dietary, he felt that each departure from it would increase his indigestion, and so it did. The thought of eating was always associated with that of dyspepsia. I explained

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to him that few people, especially after middle age, were perfectly well. When the mental outlook was healthy, however, the individual neglected minor morbid sensations, no matter of what origin, and went cheerfully on his way. The neurasthenic, however, noticed all his sensations, increased them by concentrating his attention upon them, provoked their recurrence by anticipating them, and so cultivated his own disease. I told the patient to give up all drugs and restricted dietary, and suggested that his indigestion would cease. A few days later, he said he had been enjoying decent meals, and that these had not been followed by indigestion. This improvement has been maintained.

In many instances my patients had had Weir-Mitchell treatment before they came to me. The result had almost invariably been a gain in weight, impaired digestion and an aggravation of the mental symptoms. Isolation had increased introspection, and the patients, deprived of all outside interests, brooded perpetually upon themselves, and so developed their morbid symptoms. Many of them were intelligent enough to recognise this, and bitterly resented what they felt was mistaken treatment. I do not conclude from this, however, that a "rest cure" is invariably bad practice. The patients who come to me are those in whom this form of treatment, as well as many others, has failed, and their mental condition demands occupation and interest, instead of isolation. In neurasthenia, many symptoms which are apparently physical are really nervous in origin, and to treat them by rest-cures, drugs and the like draws the patient's attention forcibly to them, and makes him believe also that his malady is an organic one. He should be made to understand that his condition is mainly, if not entirely, due to morbid self-suggestions and that these ought to be corrected by healthy ones.

Most of the patients I treat have more or less lost their will-power. Dipsomania, morphinomania, neurasthenia,

hysteria, obsessions, involuntary muscular movements, all show lack of self-control. In some instances the illness came on suddenly, as the result of shock or overstrain, but in many others it was the culminating point in a life characterised by lack of discipline and self-control. Convulsions or spasms, which the patients are now incapable of influencing by their volition, have often had countless forerunners in tricks of gesture, bursts of passion, petulance, emotion, or the like, which they could have learnt to control. The central object in all treatment by suggestion ought to be the development of the patient's control of his own organism. It should be plainly pointed out to him that his disease frequently demonstrates the feebleness of his volition : he desires, for example, to stop drinking, but cannot; he wishes to escape from an obsession, but is unable to do so. The treatment by suggestion, which enables him to carry his wishes into effect, does so by increasing, not diminishing, his voluntary control of his own organism. He should be taught to apply this increased power for himself, not only in the immediate instance for which he seeks relief, but also on other occasions, should fresh troubles arise. While attention is given to physical culture, the emotional side is too often neglected; but much disease would be prevented if we could control moral states, just as an athlete controls physical states.

Three distinct processes are involved in the methods I have described :

- (1) The study of the patient's mental condition, the attempt to remove erroneous ideas, and the explanation of methods.
- (2) The employment of suggestion to produce concentration of thought, and a restful condition of body and mind.
- (3) The treatment of disease by suggestion, as shown in the various medical cases already cited.

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1. Undoubtedly, the subsequent cure is often made easier, especially in cases of purely functional nervous disorder, if the patient understands that his malady is due to his own morbid self-suggestions. Many instances show, however, that this preliminary work is not the essential part of the treatment. For example, patients suffering from obsessions are often in good physical health, and recognise the absurdity of their ideas. They cannot, however, abolish these by any effort of volition; they recognise that their will-power is in default, and that drugs cannot restore it. Again, many patients suffering from neurasthenia recognise that their symptoms are dependent upon their mental state, and that these have been made worse, instead of better, by ordinary medical treatment. In such cases, when recovery results, it is undoubtedly due to the suggestions given under the conditions already described. Further, some who understand about suggestion and admit that it can cure others, deny the possibility of its doing them good, as they believe their condition to be hopeless. Despite this, a large proportion of such patients do recover when treated by suggestion. These cases, however, are generally very difficult, and treatment has often to be continued for weeks before there is the slightest improvement. In one such case-melancholic neurasthenia-every time the patient came to see me she said : "I am immeasurably worse than I was yesterday. You think it is only my nerves that are wrong, but I know that my brain is gone, and that I am insane. I have lost all affection for my husband and children, and nothing seems real or natural. God can't want me to live in this awful state, and I shall commit suicide. You will never see me alive again." After two months' apparently fruitless treatment, this patient rapidly recovered, and has since had many years of thoroughly good health.

In some cases the patients were not intelligent enough to understand the value of treatment by suggestion, but,

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despite this, good results were obtained. The following is an example :---

No. 73. Mr. ----, aged 60; May, 1900. Had always been a light sleeper, but this had never been a serious trouble to him. His health had been good till 1895, when he gave up business. Immediately afterwards insomnia appeared; this grew worse, despite medical treatment and much exercise in the open air. For a time narcotics helped him, but soon lost their effect, although changed frequently. From 1896, he had never had three consecutive good nights, and often passed many with an average of two hours' sleep. His dread of insomnia became an obsession ; he feared going to bed and would not do so unless someone shared his room. The patient was sent to me by Dr. Herbert Tilley, whom he had consulted for aural trouble. I was quite unable to make him understand the influence of the mind upon the body, and the possibility of his being cured by suggestion instead of by drugs. At first he would open his eyes and arrest the process of suggestion to assure me that he was perfectly certain that speaking to him in that way could have no effect. After a few sittings, however, although he did not become drowsy or even restful, the suggestions took effect, and he began to sleep better. In a month he was well and had abandoned all drugs. Recovery confirmed by later reports.

Here, obviously, the result was not due to the previous mental impression, but to the systematically repeated suggestions.

2. If the patient can concentrate his attention upon something restful, and turn it away from the operator, this apparently plays an important part in the results obtained. A typical example of this has already been cited (Case No. 63, pages 90-92). The patient, Professor ——, believed in treatment by suggestion, and was acquainted with the literature of the subject. He told me this, but said, "I haven't the least idea whether I shall be susceptible, but

I will do exactly what you wish." His recollection of what happened is correct, with the exception that I did not tell him that I wanted him to go to sleep, but only wished to get him into the drowsy condition that precedes sleep. He had three treatments, and it was only during the second that he was at all drowsy. Yet, not only did he entirely recover from his insomnia, but he also developed a remarkably useful power of self-suggestion.

In many instances the nature of the illness prevents the induction of any restful, drowsy condition. In cases of neurasthenia and obsession there is often a continued turmoil of painful thought that the patients are unable to control, while in clonic muscular spasm, hysterical convulsions, incessant hiccough and the like, the muscular movements render repose impossible. In such cases, however, satisfactory results are often obtained, as, for example, in Case No. 17 (pages 32–34). At first the patient had violent generalised convulsions every time she was brought for treatment, and when these ceased there were continuous involuntary movements of all the muscles on one side of her body. Despite this, the symptoms soon commenced to improve under suggestion, and the patient rapidly recovered.

These and similar facts apparently indicate that the curative results are due to the repeated suggestions, and, in many instances, to these alone. As we have seen, the preliminary explanations were not required in some instances; in others they were not accepted by the patient. Further, in certain cases there was neither concentration of attention nor rest of mind or body.

One more point remains for consideration, and it is an important one. Suggestion had already been employed, but without effect, in nearly every case of mine. Many of these patients had been informed, and had believed, that a particular kind of treatment would cure them. Others had been told that their morbid symptoms were only imaginary,

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and that they could get rid of them by exercising their willpower. Children addicted to bad habits had been punished, but this did not cure them, despite the suggestion of its repetition. One of my patients lost, through drink, health, money and friends; he had also, on three different occasions, voluntarily spent a year in a retreat. All this involved the suggestion that he should stop drinking. Finally, his wife left him, and doubtless, before doing so, made many emphatic suggestions: these were of no avail, yet he rapidly recovered when treated by suggestion.

As Myers pointed out, the operator directs the conditions upon which the phenomena depend, but does not create them. Professor Bernheim's command, "Feel pain no more," is no more a scientific instruction how not to feel pain, than the prophet's "Wash in Jordan and be clean" was a pharmacopœial prescription 'for leprosy. In the socalled hypnotic state the essential factor is not the means used to excite the phenomena, but the peculiar state which enables them to be evoked. I do not in the least know why suggestions, given in this particular way, should often produce such marvellous results, and I always frankly admit my ignorance to my patients. Even in cases where there is apparently no deviation from the normal, and where neither concentration of attention nor restfulness has been obtained, some change must have taken place in the patient's brain which rendered him more suggestible. Apparently, the main factor is systematically repeated suggestion, but just what gives it its value I know not. Of analogous cases treated in this way by the same operator, some will recover and some will be uninfluenced. Again, while using identical methods, one person may succeed in a given case and another fail in an exactly similar one. Further, operators whose methods are widely different may be equally successful. Possibly the most important thing is not so much the method as the man behind the method—his power to increase the suggestibility

of the patient, and thus enable him to carry out suggestions, by the development of his own will-power.

The methods I now use, different as they are from those I employed at the commencement of my hypnotic work twenty years ago, vary very little from those I have been constantly using for the last eighteen years. The change consists not so much in the method employed as in a truer conception of the conditions evoked. I hypnotise my patients now as much as I have ever done, and as much as anybody else who still holds my earlier views. We none of us ever produce sleep in the sense of unconsciousness, and I produce now just what I produced formerly, an increased suggestibility. As Bernheim truly said, the hypnotised subject is conscious in every stage; and he also pointed out how, owing to ignorance of this, the Salpêtrière School fell into the error of attributing various phenomena to physical agencies. The results, however, were really evoked by the conscious, or unconscious, suggestions of the operator, which were heard and responded to by patients erroneously supposed to be asleep.

The majority of my patients, sooner or later, pass into a restful, drowsy state, which would be described as slight hypnosis by those who do not share my views. Again I insist, these patients are conscious of everything that is passing around them, and are not, in the proper sense of the word, asleep.

In two directions, I believe my methods have improved: (1) I now attach more importance to the intelligent co-operation of the patient. I instruct him more fully and clearly how he should concentrate his attention upon some restful, monotonous train of thought. I also tell him, when his attention becomes tired, to allow his thoughts to wander, if possible, in a day-dreamy fashion. Very frequently a drowsy condition follows, but this is not really essential. Thus, for example, in a case of grande hystérie (No. 16, pages 30-32) the patient never became drowsy at all; on every occasion he mentally repeated verses of his favourite poets. Notwithstanding this, his vomiting ceased after the first treatment and he made a rapid recovery.

(2) I now often succeed with a class of patients who formerly baffled me. These are of two kinds: (i) those in whom uncontrollable muscular movements make physical repose impossible, and (ii) those in whom the turmoil of painful thoughts and emotions renders mental rest impossible. Of the first, No. 17 (pages 32-34) is a striking example, while the second group includes the worst types of neurasthenia and certain other mental cases. In these instances the patients cannot even imitate sleep or repose until suggestion has done its curative work.

CHAPTER XI

SUGGESTION IN ORDINARY MEDICINE AND IN QUACKERY

The Important Part always played in Medicine by Suggestion—Sir Henry Holland's Researches—Increased Secretion of Milk, and Cure of Long-standing Hysterical Paralysis, as the Result of Suggestion—Alleged Action of Drugs in Sealed Tubes— Homœopathy and Suggestion—The Apparent Effects of Electro-Magnets really due to Suggestion—Suggestion in Ordinary Medical Practice—Hack Tuke on Sir Andrew Clark—Quack Medicines—Christian Science criticised.

SUGGESTION has ever played an important part in medicine. In earlier and more superstitious times the priest or saint was the physician; suggestion was administered in concrete form, through the medium of saintly relics or holy wells, and the cure ascribed to Divine agency. As superstition decreased, belief in the power of saintly relics diminished, and the cures said to be wrought by them were looked upon as idle tales. Still later, science pointed out how every function of the human body could be influenced by fear, hope, etc. ; then, some of the cures were admitted to be possible, while the relics were regarded simply as the means by which the emotional states were evoked.

In 1839, as the result of Sir Henry Holland's researches ("Medical Notes and Reflections"), the action of mind upon body was still further realised. The influence of the emotions upon physical conditions had, he said, long been recognised, but the effects of the consciousness, directed by voluntary effort to particular parts of the organism, had been overlooked. In his opinion, many of the functions and all the sensations of the body could be influenced by

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voluntarily fixing the attention upon some function or organ, even when this was unattended by emotion.

According to Braid, it had long been known that various anomalous sensations followed the prolonged direction of the attention to any part of the body; but, although remarkable cures had sometimes followed mental excitement, and severe illness and even death had resulted from fear, it was usually supposed that these sensations were unaccompanied by physical change. Braid said that, with the exception of Sir Henry Holland, no one believed that definite physical changes could be excited, regulated and controlled by the voluntary mental efforts of a healthy individual, or that the same results might be produced by the direct or indirect suggestions of another person.

Braid cited, amongst other alterations in function resulting from suggestion: (1) increased secretion of milk. Of this the following are examples :—

Braid hypnotised a patient who was nursing a child fourteen months old, and suggested an increase of milk in one breast; at that time the secretion had almost disappeared. The breast rapidly became distended, and Braid again hypnotised her and successfully repeated the experiment with the other breast. The patient suckled her child for six months longer, the supply of milk being more abundant than it had been at any time since her confinement.

Esdaile's sister-in-law, when weaning a child, suffered from painful and swollen breasts. Esdaile mesmerised her, and in half an hour she was free from pain; next morning the breasts were soft and comfortable, and there was no further secretion of milk.

An interesting case is reported by Grossmann. B., aged 20, primipara, suckled her child for a fortnight, and then ceased to do so, as she had to leave home. Three weeks later she returned, and wished to nurse her child again; but the secretion of milk had ceased in the right

breast, and almost entirely in the left. The patient was hypnotised, and the sensations associated with the flow of milk suggested. In three minutes the veins of the left breast became enormously congested and milk began to flow from it. At first, repeated pressure failed to produce a single drop from the right breast, but, when suggestions were again made, milk was freely secreted. These observations have been confirmed by others, and I have had several successful cases in my own practice.

(2) Cure of long-standing hysterical paralysis without organic lesion. Braid quotes cases in illustration of this, and his observations have been confirmed by myself and others.

(3) The action of drugs in sealed tubes. It was asserted in America that certain drugs acted through glass, *i.e.* if the patient held the bottle of medicine it produced the same effect as if he had swallowed the drug. To those who laughed, Braid retorted that imagination, attention and expectation could produce the effects attributed to the medicine, and proceeded to prove it. He told a friend about "this wonderful American emetic," and placed a bottle of coloured water in her hand. She was immediately sick, but the vomiting stopped when she was given another bottle, which she was told was the antidote.

More recently, Luys has asserted that drugs in sealed tubes influenced not only bodily functions, but also moral states; thus, when a tube of laurel-flower water was brought near a Jewish prostitute, she adored the Virgin Mary!

Braid insisted that the effects attributed to "odylic force" were entirely due to suggestion. The following experiment illustrated this, and also showed how, despite supposed *rapport*, a subject responded to suggestions, even when these were not given by the original operator. A physician told Braid that he had obtained wonderful results from magnets, and claimed to demonstrate this on a mesmeric subject. He showed how, when he touched her limbs with

the magnet, catalepsy was produced. Braid then said that he had an equally powerful instrument, and told the physician, in the subject's presence, that when he put it into her hands it would produce catalepsy; and it promptly did After terminating this by passes accompanied by sug-SO. gestions, Braid placed the instrument in another position, and said it would now have the reverse effect-the subject would not be able to hold it, owing to muscular paralysis : this, as well as many other experiments, was successful. Braid then explained to the physician the real nature of his magical instrument : it was simply his portmanteau-key and ring; and its powers were the result of the predictions which the subject had heard. This illustrated the action of suggestion during hypnosis : neither magnet nor portmanteau-key played any real part in the performance.

In 1843, Braid referred to Elliotson's belief in the **mesmeric powers of certain metals**, and to Wakley's test-experiments. The latter, using a non-mesmerising metal, made the subject believe it was a mesmerising one, and she fell asleep. While Wakley concluded that the subjects were impostors, Braid asserted that the condition was genuine, and due to suggestion : the metals were neither mesmeric nor non-mesmeric. In the same way, Braid explained the action of the "wooden tractors" which Dr. Haygarth successfully substituted for the metallic ones used by Dr. Perkins for the relief of headache. They were applied by drawing them lightly over the part affected, and this method of treatment—very fashionable at one time was termed "Perkinism," in honour of its inventor.

Braid believed that these and similar facts explained how hypnotism cured or relieved disease. Suggestion, either verbal or indirect, aroused certain ideas in the mind of the patient. These acted as stimulants or sedatives, and either directed attention to, or withdrew it from, particular organs or functions. In ordinary practice, similar results were produced by prescribing medicines, which acted as

general or local stimulants or sedatives. If blushing, a phenomenon due to altered capillary circulation, appeared immediately as the result of a mental impression, dominant ideas might equally well produce powerful effects on other parts of the body.

According to Braid, **homeopathy**, as well as hypnotism, illustrated the action of suggestion. Sir J. Y. Simpson had proved that one homeopathic dilution was so weak that a patient would have to take a dose every second, night and day, for thirty thousand years, before he consumed one grain of the drug; while another dose would require a mass of the dilution equal to sixty-six times the bulk of the earth, to contain a single grain of medicine.

Further, Braid held that the mental element associated with the administration of drugs in general had been ignored, and that it was worth finding out how much was due to medicines, how much to suggestion. A mental impression was produced whenever a drug was consciously taken; this might account for the changes of opinion as to the value of particular medicines. At one time a favourite drug appeared to possess every valuable quality, then was discarded as worthless, while later it regained its former position. All this arose naturally : a sanguine doctor prescribed it with confidence, his patients caught the inspiration, and each success increased their faith. Thus the medicine acquired curative powers in excess of its physical properties. Later, when the drug was prescribed doubtfully, the mental influence was unfavourable, and the remedy was robbed of some of its natural value.

Professor Benedikt's theory that **magnets possess** extraordinary therapeutic powers is an interesting modern example of the unconscious use of suggestion in medicine. The magnet, he says, is of more value in certain forms of hysteria than electricity, hydropathy or drugs. When it is applied to the sensitive vertebræ, the irritable patient soon becomes quiet, or even quasi-paralysed. The

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muscles gradually relax, the respiration becomes sighing, consciousness slowly disappears, and resistance to conduction in motor nerves may easily become absolute. The two poles have different effects, and the magnet must be applied with caution, as patients may be injured by it.

These statements were tested in America. Electromagnets of enormous power were used (2,000 to 5,000 C.G.S. units to the square centimetre), and experiments were made on human subjects and lower animals. A young dog was subjected to magnetic influence for five hours (apparently an absolutely painless experiment); but, instead of being paralysed from the increased resistance to conduction in motor nerves, on being liberated it was more lively than before. The experimenters concluded that the human organism is not appreciably affected by the most powerful magnet known to modern science, that neither direct nor reversed magnetism exerts any perceptible influence upon the iron contained in the blood, upon the circulation, ciliary or protoplasmic movements, sensory or motor nerves, or the brain. The ordinary magnets used in medicine, they held, have a purely suggestive effect, and would be just as useful if made of wood.

Some modern authorities now believe that suggestion is largely intermixed with **ordinary medical practice**, and often forms the most important factor in its success. Of this an interesting example is afforded by Sir Samuel Wilks in his address entitled "Stray Thoughts on some Medical Subjects," delivered before the Oxford Medical Society on November 9th, 1894. Sir Samuel said : "To sit down in one's chair daily, and write on a piece of paper the name of some drug for every ailment without exception which comes under our observation, is, in the present state of medicine, an absurdity, and is simply a pandering to human weakness. I do not say that drugs are not useful in a moral sense" - (that is to say their influence, *in certain cases*, is purely suggestive)—"I am merely contending that the method is

not scientific, as we usually apply this term. I know of no more successful practitioner than the late Sir William Gull, and his treatment was rational, but he did not credit any particular drug with the properties ascribed to it by the patient. His prescriptions very often consisted of nothing but coloured water."

Sir Samuel described a "sixpenny doctor" at a cheap dispensary, who saw on an average seventy patients each evening, and whose almost universal remedy was a mixture composed of sulphate of magnesia, burnt sugar and infusion of quassia. The following were his directions for successful practice : "Always give medicines which produce appreciable effects; then, also, the mixture must taste like medicine, and if it have a bad smell the patient will be better satisfied."¹

Sir Samuel states that "changes in the pathological views of disease have caused the whole method of its treatment to be altered again and again," and that "further chemical knowledge frequently shows that the drugs we employ do not possess the qualities we have been in the habit of attributing to them."

Hack Tuke, in speaking of Sir Andrew Clark, said: "His favourite drugs were bicarbonate of potash and a vegetable bitter, but neither drugs nor diet formed the central factor of his treatment, or explained his success. 'Suggestion' lay at the root of it all. The term, however, is too mild unless understood in the technical sense in which it has been employed in recent times. In short, Sir Andrew out-Bernheimed Bernheim; he was, in a word, the most successful hypnotist of his day." This is specially interesting when one remembers that Sir Andrew publicly

¹ This, as regards cheapness, was not quite equal to a dispensary which advertised : "Advice and Medicine, 2d. Superior Ditto, 4d." The latter, in its turn, was surpassed by a medical man, of whom I knew, some twenty-five years ago. He employed an agent to tout for members for his Children's Club : fees, one halfpenny per week, drugs and bottles included!

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stated that, although he had seen nothing of hypnotic practice and was unacquainted with its literature, he unhesitatingly condemned it !

We find Hack Tuke and Sir Samuel Wilks practically reproducing the views of Braid and Elliotson to the effect that, in many instances, drugs owe their supposed therapeutic value to the faith of the patient. In typical cases, the alleged curative agent is stated to be either nonexistent or inert, as, for example, in the "coloured water" of Sir William Gull and the magnets of Benedikt. The latter, as we have seen, holds that magnets possess extraordinary therapeutic powers, despite the fact that scientific investigation has shown them to be devoid of the properties he attributes to them. His method of treatment is, in fact, a reproduction of "Perkinism," already referred to.

I do not believe that most medical treatment merits Sir Samuel Wilks's description, but, apparently, some of it does, thus resembling "faith-healing," as the curative effects are due to a belief in what does not exist. Such methods have their drawbacks, as advancing knowledge is likely to rob them of their power. The electropathic belts, so freely advertised a few years ago, sometimes caused functional nervous disturbances to disappear ; but, to my personal knowledge, these cases relapsed after the exposure. Would Benedikt's magnets be still efficacious if all his patients knew they were really powerless? Would it not be better either to substitute "suggestion" alone for "coloured water" and magnets, or to employ instead remedial agents of undoubted value? Further, the temperament of the physician has a powerful influence upon his patients, and, other things being equal, their chance of recovery may turn upon the question whether he is an optimist or a pessimist. Again, as we have seen, in a case of neurasthenic dyspepsia (pages 177-78), the medical treatment perpetuated the condition by arousing morbid selfsuggestions in the patient.

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Babinski has recently asserted that many of the symptoms which were regarded as most characteristic of hysteria are entirely due to the methods of examination of the doctor, and to his unconscious suggestions. According to Babinski, hemianæsthesia, retraction of the visual field and the like are never found in hysteria unless the patients have been medically examined, or have seen other patients examined, or heard these symptoms described. Amongst his own hysterical patients, when these conditions have not existed, and when he has taken proper precautions to prevent them from arising, the symptoms referred to have never been present.

The British Medical Journal has recently published the analyses of various **quack medicines**; in most of them the drugs were valueless. On the other hand, patients must sometimes have derived benefit, as thousands of people do not go on taking a particular drug if no effect is produced. When, however, cure has resulted, this must have been due to suggestion alone.

Amongst the forms of quackery now rampant, the most prevalent and most dangerous is so-called "Christian Science." It claims to possess over a thousand churches and tens of thousands of followers, and the harm that is being done in its name is incalculable. One good thing, however, is likely to arise out of evil : medical men in America, alarmed at their loss of practice through Christian Scientists, are beginning to study treatment by "suggestion." A number of American doctors have already visited me and then gone on to Nancy, while others propose doing so.

What is claimed to be an inspired book, entitled "Science and Health, with a Key to the Scriptures," has been published by Mary Baker G. Eddy, President of Massachusetts Metaphysical College, and the edition I read was the 149th, but this, I believe, is not the last. On the fly-leaf of the book the following verse gives a key to the

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situation, and illustrates the lack of humour characteristic of Mrs. Eddy and other self-styled prophetesses :

"I, I, I, itself, I,

The inside and outside, the what and the why, The when and the where, the low and the high, All I, I, I, I, itself I."

The bulk of the book consists of quotations from the Bible and the author's interpretation of them, and it is difficult, out of the mass of confused verbiage, to choose passages that would give a clear idea of Mrs. Eddy's theories and practice.' I have, however, selected, and will now reproduce without alteration, certain definite statements she makes, and will afterwards attempt to examine them.

Mrs. Eddy says :--- "Sickness has been fought for centuries by doctors using material remedies; but the question arises : Is there less sickness because of these practitioners? A vigorous No is the response. . . . The hosts of Æsculapius are flooding the world with diseases, because they are ignorant that the human mind and body are one. . . . The ordinary practitioner, examining bodily symptoms, telling the patient he is sick and treating the case according to his diagnosis, would, by this course, have induced that very disease, even if it were not already determined by mortal mind. He thus commits an unconscious offence against happiness and health, and ensures a good job for himself, if not a fatal one for his patient. . . . Obedience to the so-called physical laws of health has not checked sickness. . . . When there are fewer doctors, and less thought is given to sanitary subjects, there will be better constitutions and less disease. . . . Ignorant of the fact that a man's belief produces disease and all its symptoms, the ordinary physician must of necessity increase disease with his own mind. . . . The idols of civilisation are far more fatal to health and longevity than the idols of

barbarism. The Esquimaux restore health by incantation as effectually as civilised practitioners by their more studied methods. Is civilisation only a higher form of idolatry, that man should bow down to a flesh-brush, to flannels, to baths, diet, exercise, and air? . . . All disease is the result of education, and can carry its ill-effects no further than mortal mind maps out the way. . . . The sick are never really healed by drugs, hygiene, or any material methods. . . . The daily ablutions of an infant are no more natural or necessary than would be the process of taking a fish out of water every day and covering it with dirt in order to make it thrive more vigorously in its native element.¹ . . . When the sick recover by the use of drugs it is the law of a general belief, culminating in individual faith, which heals, and according to this faith will the effect be. . . . Matter will be finally proven to be nothing but a mortal belief, wholly inadequate to affect man through its supposed organic action or existence."

Mrs. Eddy also states that our forefathers were free from disease because they were ignorant of the existence of disease. "You say," she continues, "a boil is painful; but that is impossible, for matter without mind is not painful. The boil simply manifests your belief in pain, through inflammation and swelling; and you call this belief a boil. Now administer mentally to your patient a high attenuation of truth on this subject, and it will soon cure the boil. . . Matter cannot be inflamed Inflammation is an excited stage of mortal mind that is not normal. . . Christian Science heals organic disease as well as functional. . . It handles the most malignant contagion with perfect assurance. . . Working out the rules of science in practice the author (Mrs. Eddy) has restored health in cases of both acute and chronic disease, and in their severest form. The structure has been renewed, shortened limbs have been elongated . . . Carious

¹ The italics are mine.-J. M. B.

bones have been restored to healthy conditions, what is called the lost substance of lungs has been restored. . . . If the lungs are disappearing, this is but one of the beliefs of mortal mind. . . . Mortal man will be less mortal when he learns that lungs never sustained existence. Death is but another phase of the dream that existence can be structural. . . The treatment of insanity is especially interesting. However obstinate a case, it yields more naturally than most diseases to the salutary action of Truth, which counteracts error. . . What is termed disease does not exist. It is not mind nor matter. . . The dream of disease is like the dreams we have in sleep." According to Mrs. Eddy, "Christian Science can heal the sick who are absent from their healer, as well as the present, since space is no obstacle to Mind. Immortal Mind heals what eye hath not seen. . . The perusal of the author's publications heals sickness constantly."

First, let us admit that there is in Christian Science, as in all forms of successful quackery, a substratum of truth. In this case, the truth, though highly "attenuated," to use Mrs. Eddy's own term, is undoubtedly "suggestion." Mrs. Eddy denies this, and asserts that the attempt to improve or control the organism by will-power, or self-suggestion, is to be condemned.

In her opinion, modern medical science, cleanliness, air and light are all evil, and bar the progress of the human race towards health and happiness. Mrs. Eddy asserts that sin, pain, sickness and death have no real existence; they are only the dreams of mortal mind. On the other hand, although non-existent, they require to be cured, and this she claims to be able to do in every instance; the remedial agent being her "metaphysical mind." Much of Mrs. Eddy's book naturally moves to laughter, and she might be forgiven if she stopped short at theory. What must we think, however, of a practice which would deny the help of medicine and surgery not only to grown-up

people, but also to children, and which condemns not only general sanitation, but also personal cleanliness, even in infants!

Filth and Mrs. Eddy's "metaphysical mind" are poor substitutes for all the priceless possessions we owe to modern science. Given faith in Mrs. Eddy, I can easily believe that she may have cured cases of purely functional nervous disorder by means of "suggestion." I have, however, never seen anyone who has been cured by Christian Scientists. On the other hand, I have met a good many of their failures. Some of these patients told me that they had received benefit for a time, but later, when the emotional element passed off, they relapsed into their former condition. Other cases, where death has occurred during Christian Science treatment, are investigated from time to time in the Coroner's Court.

According to Mrs. Eddy, the "metaphysical mind" acts more powerfully in silence than in expressed thought, but best of all at a distance, when operator and patient are both asleep. Thus, Hudson, as we have seen ("The Law of Psychic Phenomena"), talks of telepathy as a recognised commonplace, and describes it as the basis of the most successful branch of Christian Science, namely, "the absence treatment." When patients *know* that they are receiving "absence treatment," and believe in its efficacy, they may receive benefit through their own self-suggestions, but, further than that, no other force is involved.

The idea that one can be influenced from a distance, against one's will, and without one's knowledge, is startling enough, even when the supposed influence is asserted to be for one's good. What must one think, however, of the mystic who was an anti-vivisectionist as well as a telepathist, and who claimed to have killed Pasteur by malign telepathic influences ? The so-called telepathy of Mrs. Eddy is simply an attempt to revive the superstitions and practices of the dark ages. The occultist who claims to kill telepathically differs little, if at all, from the witch who was willing to do an enemy to death by the slow melting of his waxen counterfeit, and the like. Despite all this, to be able to make patients believe in, and *pay for*, "absence treatment" shows genius, and must arouse envy in the breast of the hard-working orthodox practitioner. Instead of performing surgical operations, or combating disease by drugs or suggestions, how sweet life would be if one could turn over all this drudgery to the "subconscious mind," and have the work done successfully while we and our patients slept ! In the daytime we could give ourselves up to scientific pursuits, or follow our personal hobbies. Further, as in this form of treatment distance is immaterial, we might stay where we liked, or travel at will, climb to where the dun deer lie, or walk to where the brown trout rise !

CHAPTER XII

SUMMARY AND CONCLUSION

Historical : Elliotson and Esdaile : How they were Treated ; Braid ; Liébeault—Hypnotic Theories : The Subliminal Consciousness Hypothesis : its Advantages and Defects—Methods—Suggestion as a Substitute for Anæsthetics—Suggestion in Medicine and in Quackery—Dangers of Christian Science.

THE most important thing to remember, in reference to the so-called hypnotic state, is that the condition is invariably a conscious one. Volition is unimpaired, intelligence is intact, and the patient has acquired an increased control of his own organism.

Historical.—Looking back on the revival of mesmerism, and on the origin and earlier development of hypnotism, one must admit that these movements were almost entirely due to Elliotson and Esdaile, Braid and Liébeault, all of whom were more or less martyrs to what they believed to be the truth.

Elliotson's researches cost him official position, reputation, fortune and friends, and he was the constant subject of rancorous abuse in the medical press and elsewhere. He was described as a charlatan, not only on account of his mesmeric work, but because he was the first to use the stethoscope in England. The stethoscope, as well as the facts of percussion and auscultation, as described by Avenbrugger, were condemned as fallacies by the foremost teachers of medicine in London, while, even at a much later date, they were treated at St. Thomas's with indignation or silent contempt. At the College of Physicians, a senior Fellow, in a Croonian Lecture, denounced the folly of carrying a

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piece of wood into a sick-room. Another condemned the stethoscope as worse than nonsense, and said, "Oh! it's just the thing for Elliotson to rave about." While a third, on seeing one on Elliotson's table, said, "Ah! Do you use that hocus-pocus?" On Elliotson replying that it was highly important, he added, "You will learn nothing by it, and, if you do, you cannot treat disease the better."

Esdaile's earlier mesmeric work was ignored by the medical authorities, while his later efforts were bitterly opposed. In his case, however, opposition only acted as a stimulus. It impelled him to do more than he ever intended, and thus brought about his appeal to the Government, which resulted in the establishment of the official mesmeric hospital at Calcutta.

Esdaile was more a surgeon than a man of science, and could not understand why Professor Bennett supported "hypnotism" at the very time "mesmerism" was so fiercely attacked. Esdaile had evidently failed to grasp the importance of Braid's views as to the *subjective* nature of hypnotic phenomena, and said he would willingly have called his operations "hypnotic" if he had known that a change of title was all that was necessary in order to ensure their recognition.

Esdaile's later days were certainly saddened by the treatment he received, and he naturally asked what he had done to deserve it. He pointed out that he had remained poor for the sake of mesmerism, and had also saved thousands of human beings the pain which, until then, had invariably been associated with surgical operations. This, in itself, surely did not justify his being considered as an outcast from his profession.

After Esdaile returned to England, Sir James Simpson, of Edinburgh, wrote to him to the effect that he owed it to himself and his profession to let his proceedings be known in England. In response to this, Esdaile sent to an English medical journal an account of 161 scrotal

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tumours painlessly removed during mesmeric trance. The history of what followed, and Esdaile's opinion of the treatment he received, I give in his own words :---

"My article was not published, and I then sent a more general paper containing a résumé of my surgical work. This was rejected for its unpractical character. I have heard that it is given as a reason for not printing my paper that, though no one now denies my facts, these apply to the natives of India only. But, as far as I know, no medical journal has admitted the reality of painless mesmeric operations, even for India, or inserted one of the numerous European cases reported from London, Paris, Cherbourg, etc. They will not admit, or permit you even to hear of, such indisputable facts, through fear of the consequences. But, supposing the natives of India were alone concerned, is it of no interest to the surgeon, the physician, the physiclogist, and the natural philosopher, to know that the hundred and twenty millions of our Eastern subjects (one would suppose they were monkeys) are so susceptible to mesmeric influence that painless surgical operations, and other medical benefits from mesmerism, are their natural birthright? You have been told all along by your journals that your medical brethren engaged in studying mesmerism are either fools or quacks. But how men like myself, who neither want nor will receive private practice, can be reduced to the category of quacks I do not well see. If we are fools we ought to be encouraged to write ourselves down as such, as the speediest and most effectual way of exposing us. I am convinced that you" (i.e. the profession in general) "and I are agreed on one point, namely, in liking to be allowed to judge for ourselves, and that you will not submit to be hoodwinked or led by the nose by persons we pay to keep us well informed of new facts, and the progress made in our profession all over the world. To pretend that there is a free medical press in Great Britain is a mockery and a delusion. And the proof of this is that medical men, who pledge their

unblemished private and professional reputation for the truth of their statements, are not allowed to be heard by you in your professional organs, if what they advance is contrary to the prejudices and foregone conclusions of the *editors*."

Braid, who was essentially open minded, and inspired with the truest scientific spirit, eagerly seized upon all fresh facts, and altered his theories in accordance with them. He not only invented the terminology we still use, but even, at a later date, rejected it as misleading.

Although Braid believed that hypnotic suggestion was a valuable remedy in functional nervous disorders, he did not regard it as a rival to other forms of treatment, nor wish in any way to separate its practice from that of medicine in general. He held that whoever talked of a "universal remedy" was either a fool or a knave : similar diseases often arose from opposite pathological conditions, and their treatment ought to be varied accordingly. He objected to being called a hypnotist ; he was, he said, no more a "hypnotic" than a "castor-oil" doctor.

Braid frequently referred to the almost incredible opposition he had to encounter, at the hands both of the orthodox medical practitioner and of the mesmerist. His explanation of this I give in his own words :—" Like the originators of all new views, however, hypnotism has subjected me to much contention; for the sceptics, from not perceiving the difference between my method and that of the mesmerists, and the limited extent of my own pretensions, were equally hostile to hypnotism as they had been to mesmerism; and the mesmerists, thinking their craft was in danger—that their mystical idol was threatened to be shorn of some of its glory by the advent of a new rival—buckled on their armour, and soon proved that the odium mesmericum was as inveterate as the odium theologicum."

Liébeault was rather neglected than abused. Although

Elliotson had many followers and Braid obtained a certain amount of scientific recognition, Liébeault, like Esdaile, worked alone. If he were mentioned at all, a thing which rarely happened, it was only as a fanatic or madman. From the day he settled in Nancy, in 1864, until Bernheimsome twenty years later-was the means of bringing him into notice, Liébeault devoted himself entirely to the poor, and refused to accept a fee, lest he should be regarded as attempting to make money by unrecognised methods. Even in his later days fortune never came to him, nor did he seek it. And his services-services which he himself. with true modesty, described as the contribution of a single brick to the edifice many were trying to build-only began to be appreciated when old age compelled him to retire from active work. Though his researches have been recognised, it is certain that they have not been estimated at their true value, and that members of a younger generation have reaped the reward which his devotion of a lifetime failed to obtain.

Hypnotic theories.—The views of the mesmerists and those of the Salpêtrière School have ceased to interest scientific men. All theories which attempt to find a general explanation of hypnotic phenomena in a physiological or psychological inhibition, or in a combination of the two, will doubtless suffer a similar fate. The increased volition and intelligence, which are frequently observed in so-called hypnosis, can be explained neither by arrested action of the higher nerve centres nor by a hypothetical automatism. Further, subjects can be taught to induce the state and its phenomena at will. In such cases it is absolutely impossible for the phenomena to be due to the suspension of the subject's volition, or to the operator's supposed power of controlling him.

If the subliminal consciousness theory does not satisfactorily explain all the problems of so-called hypnosis, we are at all events indebted to it for a clearer conception, not

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only of the condition as a whole, but also of many of its component parts. The following points in this theory seem most worthy of note: 1. The essential characteristic of the so-called hypnotic state is the subject's far-reaching power over his own organism. 2. Volition is increased, and the moral standard raised. 3. The phenomena arise from, or at all events are ultimately connected with, voluntary alterations in the association and dissociation of ideas. 4. Subliminal or subconscious states are more clearly defined.

While the phenomena of hypnosis show that consciousness can be split into two or more well-defined parts, this does not justify us in concluding that distinct personalities may exist in the same human being. To the physiologist, at all events, something more is necessary than evidence of alternating groups of memories and changes of character. To put the matter crudely, the phenomena we term mental are dependent on the life and activity of the organ which we call the brain. All the physical part of the mechanism is enclosed in one skull, and the varying psychical manifestations are associated with the changes that take place therein. It is doubtless true that an individual may receive impressions which do not arouse consciousness at the time, and that these may be the starting-point of mental processes of which he only afterwards becomes conscious through the results. In so-called hypnosis, too, he may be conscious of mental work done in that condition, but of which he knows nothing in the normal state. Through accident or disease, he may become amnesic, or aphasic, or both; he may revive memories long lost to his normal consciousness. All these varying psychical conditions, however, have their physical correlative; they correspond to changes which have taken place in that particular individual's brain. However great the alterations in consciousness, however marked the changes in character, we cannot get away from the fact that these are dependent on the one brain the individual was

born with, and the changes that one brain has undergone in subsequent life. "John Smith" does not cease to be "John Smith" when he is hypnotised, nor when he becomes insane.

If Braid and Myers have done much towards giving us a clearer idea of the so-called hypnotic state, they have also added to the difficulties of explaining it. A conception of hypnosis which limited its manifestations to simple automatic movements was comparatively easy to understand. The subject who, while he has not lost the physical and mental powers of ordinary life, has acquired new and far-reaching ones, presents a very different problem. But normal life contains many problems, both physiological and psychological, which are yet unsolved, and some-such as the causal connection between mental and physical states-which are apparently insoluble; and while this is so, it would be unreasonable to expect a complete explanation of that still more complex state which is styled hypnosis. Further observation, however, is always giving us clearer insight, if not into the central problem itself, at all events into the phenomena which characterise it.

The subliminal consciousness theory, while marking a distinct advance on all those that have preceded it, possesses defects of its own. The explanation of the origin of so-called secondary and multiple personalities is entirely inadequate,¹ both as to the states themselves and as to their phenomena. So far, no reasonable answer has been given to the question, "What is the connection between hypnotic methods and the production of so-called hypnotic phenomena?" Personally, I see no logical connection between the acts of fixed gazing, concentration of attention, suggested ideas of drowsy states, and the varied manifestations of so-called hypnosis. The phenomena do not appear spontaneously, but I cannot conceive that the methods explain them. To my mind, the main value of

¹ "Hypnotism : its History, Practice and Theory," pp. 414-417.

the subliminal consciousness theory is not so much the views contained in it as the facts upon which its conclusions are based. As William James truly says, these manifestations of the "hidden self" are immensely complex and fluctuating things, which we have hardly begun to understand, and concerning which sweeping generalisation is sure to be premature. Meanwhile, he adds, a comparative study of subconscious states is of the most urgent importance for the comprehension of our nature.

While I have raised objections to all the theories referred to—theories which are discussed much more fully in my larger work—I have, unfortunately, no theory of my own to bring forward in substitution for them.

Methods.—I have tried to give as clearly as possible such a description of methods as may be of service to those who may be disposed to try treatment by suggestion in their practice. The important thing to remember is that, though a certain proportion of the patients pass into a drowsy or lethargic condition, consciousness is never lost; and that the condition which has been termed hypnotic does not really involve any actual sleep, even in the states which are looked upon as the most profound. Further, suggestion frequently yields brilliant results, even in cases where it is impossible to obtain either mental or physical repose, until the patient has been cured.

Surgical cases.—The principal point of interest in all these cases is the fact that insensibility to pain was produced by suggestion. The chief objection to this form of anæsthesia is the difficulty and uncertainty in producing it. It is true that Esdaile invariably succeeded with his native patients in India, and that painless operations were daily performed in his hospitals, years before chloroform and ether were heard of. A medical man, who recently returned from India, told me he had seen Esdaile's casebook, which was still preserved in his old hospital. There, the induction of mesmeric anæsthesia before operation was

recorded as regularly as the administration of an ordinary anæsthetic would be at the present day.

With suggestion as the sole anæsthetic, formidable operations are occasionally performed from time to time. The following, performed by Dr. Schmeltz, of Nice, is a typical example :--- "M---, aged 20. Enormous sarcomatous tumour of the breast. Hypnosis was induced on several occasions before the operation, which was performed in the presence of a number of medical men. The tumour was removed, the axilla thoroughly explored, five drainage-tubes introduced, and the enormous wound closed with thirty-two wire sutures. The operation lasted about an hour. Dr. Schmeltz operated slowly, and quite at his ease. The patient was very merry, chatting brightly and laughing heartily from time to time. She placed herself in different positions as requested, without the aid of an assistant. etc. She suffered pain neither during nor after the operation, and slept well the following night. Recovery was rapid, and the wound was only dressed once after the operation. The drainage-tubes were removed on the third day, and the stitches on the fifteenth day, when union was complete. The tumour weighed over 4 lbs., and microscopic examination confirmed the diagnosis."

Despite all the successful cases cited, unless grave reasons existed for the non-employment of other anæsthetics, it would be waste of time to attempt to induce insensibility to pain by suggestion. It is possible that improvement in the method of inducing this form of anæsthesia may arise; but, until then, its usefulness in surgery will ever remain extremely restricted. The phenomena of suggested analgesia and anæsthesia are, however, so interesting that one cannot help wondering at their being received with opposition or ignored. Deep-seated prejudice alone can explain their treatment in the days of Elliotson and Esdaile. Of this an example may be given:—At the Royal Medical and Chirurgical Society, in 1842, when Mr. Ward, surgeon, reported a case in which he had painlessly amputated a thigh during mesmeric trance, Dr. Copland proposed that no account of such a paper having been read before the Society should be entered in its minutes. He asserted that, "if the history of the man experiencing no agony during the operation were true, the fact was unworthy of their consideration, because pain was a wise provision of nature, and patients ought to suffer pain while their surgeons were operating; they were all the better for it, and recovered better."

At the present day, when we have reliable anæsthetics, one can understand little practical importance being attached to the induction of anæsthesia and analgesia by suggestion. One would have expected, however, to find both physiologists and psychologists keenly interested in suggested analgesia from a scientific point of view. As I have pointed out, it is a thing apart, and by no means an ordinary narcotte—not a fresh example of the methods for preventing pain by checking all conscious cerebration. It has been left to a layman, Frederic Myers, to point out the extraordinary nature of the phenomenon and the complicated intellectual processes by which it was obtained (pages 153-4).

Suggestion in medicine.—As Braid truly said, suggestion is not a universal remedy; it is simply an additional weapon, by means of which medical men can combat disease.

Suggestion is sometimes useful in organic maladies, especially as a substitute for narcotics in the relief of pain. Its most brilliant results, however, are obtained in purely functional nervous disorders; a class of disease in which drugs are often of little or no avail. Further, I have followed the after-history of many of my patients, and have found that relapse has been rare.

In estimating the results obtained by suggestion, it must not be forgotten that the majority of cases treated by

me were extremely unfavourable ones. The patients had generally been ill for years, and had become hopeless, as the result of the failure of other methods. Thus, it is not the specialist, like myself, with a practice almost entirely confined to unfavourable cases, who is likely to get the best results ; it is the general practitioner, who can choose suitable cases from amongst his own patients—patients whose confidence he has already gained. As the value of treatment by suggestion and its freedom from danger become more fully recognised, it will doubtless be employed in earlier stages of disease. When that day comes the results will be still more striking.

Above all else, I must again insist that the object of all treatment by suggestion is the development of the patient's will-power, of his control of his own organism. To associate the idea of danger with such a process is absurd. During the twenty years I have practised suggestion, I have not seen a single instance in which ill effects, even of the most trivial description, have followed its use, despite the unstable mental condition of many of my patients. My experience is shared by others. Thus, Forel asserted that he, as well as Liébeault, Bernheim, Wetterstrand, van Eeden, de Jong, Moll, and the other followers of the Nancy School, had never seen a single instance in which mental or physical harm had been caused by the use of suggestion as a therapeutic agent. No complete record of their cases has been published, but the number certainly exceeds fifty thousand.

Experimental cases.—These have been selected to illustrate the alternations of memory and other phenomena which occur in certain so-called hypnotic conditions. They also show that volition and intelligence are not impaired, and that the condition is invariably a conscious one.

Suggestion in ordinary medicine and in quackery.—Much is lost at the present day through ignorance of what has been done by earlier workers. By means of suggestion, Braid scientifically explained the origin of the phenomena attributed to odylic force, magnets, drugs in sealed tubes, and even the varying powers of the same remedy prescribed sometimes doubtfully, at others confidently. All this was forgotten, and we find the old fallacies cropping up again in experiments at the Salpêtrière, Benedikt's magnets, electropathic belts, "coloured water" prescriptions, and the like.

Telepathy, which Braid investigated with negative results, and for the existence of which I have been unable to find the slightest proof, is now claimed to be at the service of every Christian Scientist, and to form the basis of their "absence treatment."

Christian Science, the most dangerous of all forms of modern quackery, is not only widely spread throughout America, but is also making rapid progress in this country. The difference between its pretensions and its performances is striking. Thus, on Friday, April 23rd, 1909, Francis J. Fluno, M.D., C.S.D., a Christian Scientist, gave a lecture at the Queen's Hall, London. Amongst other things, he claimed for Christian Science that it is scientific, for it admits of no error either in premise or conclusion. Further, "because it is science it is demonstrable, and is being demonstrated to every nation of the civilised world. . . . Nothing can stand before it. Christian Science is the eternal truth, whose convincing and converting powers nothing can daunt, and whose onward march no foe can cope with. . . . Christian Scientists are finding more and more that food does not sustain life. . . . Christian Science sounds the tocsin, 'There is no death.'"

On April 24th, 1909, the *General Practitioner* reported an inquest on the body of a lady who had died of consumption whilst under treatment by Christian Scientists. A doctor had been called in at the last moment, in the hope that he would give a death certificate, but this was naturally refused. The jury declared : "We are of opinion

that had the lady received proper medical advice, instead of trusting to Christian Science treatment, her life might have been considerably prolonged."

Suggestion ought to be a subject of keen interest to the physiologist, the psychologist, and the medical practitioner. As William James has said : "A comparative study of subconscious states is of the most urgent importance for the comprehension of our nature." Certainly, at the present day, medical men can neither afford to ignore a legitimate and valuable form of treatment, nor to allow it to fall into the hands of unscrupulous and dangerous quacks.

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