

PRACTICAL HYPNOTISM

COMTE C. DE SAINT-GERMAIN

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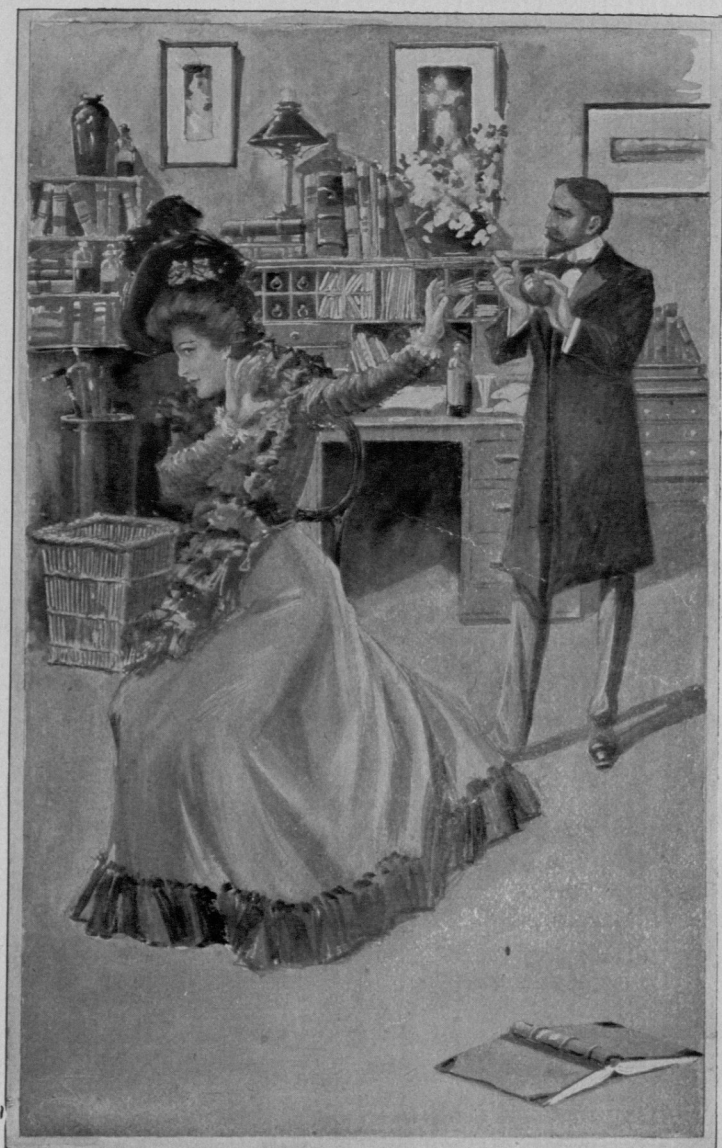
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PRACTICAL
HYPNOTISM



RESISTING HYPNOTIC SUGGESTION

PRACTICAL HYPNOTISM

Theories and Experiments

COMPILED AND EDITED BY

Comte C. de SAINT-GERMAIN,

Author of "Horoscopes and How to Cast Them"



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CATON JUN 15 1897

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THE EDITOR'S PREFACE.

Mankind's inborn love for the marvelous, for what is often called, even in our scoffing times, the "miraculous," seems to have met with no material decrease since the days of the ancient magicians. Modern science, while extending the boundaries of precise knowledge, has only whetted our appetite for further revelations. But we have learned, by the reading of the later philosophers' books and the teachings of our leading college professors, to accept only with a large grain of scepticism, statements of unusual, super-natural happenings. It is becoming harder and harder to convince us that every irregular fact can not be explained by the working of some regular law of nature, yet undiscovered in its entirety. Hence the intensity of our researches and the systematic ardor of our curiosity. In no field perhaps has this questioning of new phenomena taken place with more earnest persistency and tireless enthusiasm than in the domain of HYPNOTISM and MAGNETISM—two words that have gradually come to mean but one physical state, the symptoms of which are being scrutinized, all over the civilized world, with an insistent acuity worthy of the great doctrine at stake: the dominating influence of mind over body.

In this work, which unfolds the history of the recent developments of that curious branch of psycho-physiology, we have attempted to gather clear, positive statements from men whose names stand as synonyms of deep

scientific acumen and unimpeachable honesty. We have grouped their discoveries according to chronological order and have not allowed our private opinions to dim the brilliancy of their teachings. And yet we have not hesitated to take sides whenever necessity compelled us to, as our earnest desire is to leave in the readers' minds, not a hazy jumble of ill-digested doctrines and experiments, but a continuous exposition of the whole question as it now stands before the world, thus placing in their hands a

THEORETICAL AND PRACTICAL GUIDE

of immediate and undoubted value.

A few words will explain our purpose more fully and, at the same time serve as an epitome of the whole subject.

We will take as an example a commonplace individual whom we suspect to be amenable to what may be called for the present "hypnotic influence."

His first condition will be the "perfectly awake state."

He may gradually drop into "a slight drowse."

This may develop to the "somnambulistic stage."

As the sleep grows deeper, he reaches "the cataleptic state."

Finally he attains the extreme limit of anasthesia, or insensibility called "lethargy."

This gives us the full gamut of the successive periods comprised within the generic appellation of "Hypnotic Sleep" or "Hypnosis."

But this is not all. It has been discovered that a certain percentage of the subjects who may thus be induced

into the Hypnotic Sleep are accessible to "suggestion," i. e., the person who has placed them in that state may attain over their modified, or annihilated, will-power, an overpowering mastery, and can make them act (some people say "think") in any way he pleases as long as the hypnotic state lasts.

More still. The hypnotizer may cause his will-power to govern the subject even after the latter has awakened, by issuing certain orders, "during" the hypnotic sleep, to be obeyed "after" the sleep is over, and when, in every other respect, the subject appears to have recovered the full possession of his individuality; this phenomenon, which constitutes, in our opinion, the most sensational and the most dangerous of all hypnotic manifestations, is called "post-hypnotic suggestion." On its operation or rather its possibilities has been based the bold and shameless assertion of so-called Teachers of Hypnotism, that they will place into the possession of whomsoever pays them their fee, the power to influence other people's minds for their own profit and as their fancy may decide. We are glad to say that, within this volume, evidence will be produced that will shatter to a great extent these unholy promises and establish the fact that "suggestion" and especially "post-hypnotic suggestion" can but very seldom be successfully employed for evil purposes, and that, even in cases when they have been made use of, it is easy for another hypnotizer to expose the wickedness of the first operator by simply re-placing the subject in the hypnotic state and questioning him concerning the happenings of the preceding spell induced by the former "doctor." Thus the foolish or criminal "suggestor"—if

we may coin this term—would be destroyed by the recoil of his own weapon. As stated above, this grave aspect of the question is treated exhaustively within these pages.

The usefulness of hypnosis in the cure, or more frequently, the momentary relief, of many physical ailments is now an almost universally accepted doctrine. We shall give the reader the full benefit of the facts concerning this precious discovery, destined, within a few years, to replace ether, chloroform, cocaine and other anesthetic drugs, for the annihilation of sensibility during the performance of surgical or dental operations. The importance of this improvement may be better understood when one knows that the use of these drugs is invariably fatal whenever the heart of the patient is the least affected, and such a state often exists without the knowledge of physician and client. On the other hand, no danger ever results from insensibilization due to hypnotic sleep, while the absence of pain is just as complete if not more so.

Of course this work being prepared for perusal by the general public and the students—not the learned professions—does not aim to teach all the features of this great problem, yet but imperfectly solved; nor to discuss every minor doctrine that has grafted itself upon the initial discovery. But it will furnish the reader with

1, A complete History of Magnetism and Hypnotism up to the year One of the 20th century.

2, The most generally accepted theories concerning the cause and the symptoms of Hypnotic Sleep, in all its stages.

3, The various practical methods in use for producing

this state and for awakening the subject when it is desirable to do so.

3, The theory and practice of "Suggestion," both during and after hypnotic sleep.

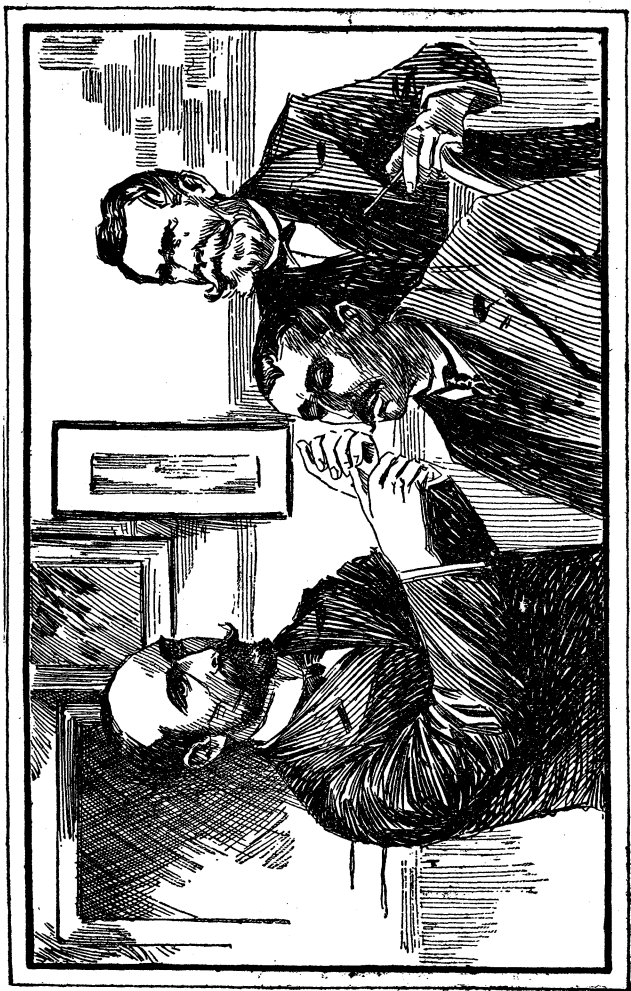
5, A certain number of applications of Hypnotism to the cure or relief of certain ailments.

6, A number of experiments that belong really more to the domain of innocent recreation than to the realm of science; in a word, the amusing side of hypnotism.

Among the authors in high repute whose works have supplied us with the theories, facts and data herein compiled and edited, we take pleasure in naming the following renowned physicians, scientists and hypnotic operators: Braid, Charcot, Luys, Liébault, Bernheim, de Courmelles, Goyard, Edard, Moll, Lloyd, Wetterstrand, Binet and Féré, Dessoir, Bentivegni, Janet, Liégeois, Krafft-Ebing, Azam, Bourru and Burot, Cullere, Beaunis, Herzen, Heidenhain, Ochorowicz, Lilienthal, Myers, Moutin, etc., etc.

As a rule, we have made it a point not to quote any of the above authors, but to interweave their statements into one homogenous narrative, the merit of which remains their own, not individually, but as a body of distinguished, often illustrious, and always strictly honest searchers after Truth. This constitutes the originality—and we hope, the value—of this compilation.

COMTE C. DE SAINT-GERMAIN.



Experiment on a Subject Suffering From Long Spells of Auto-Suggestion.

PRACTICAL HYPNOTISM.

PART I.

HISTORICAL.

CHAPTER I.

THE DAWN OF HYPNOTISM—FROM MESMER TO BRAID.

On the cover of this volume, the publishers have caused to be inserted an exact copy of an ancient Egyptian engraving on stone of the goddess Isis—the deity who was supposed to preside over the mysteries of Nature. It is said that on the pedestal of one of her gigantic statues now vanished, was written the following inscription: “I am that which is, has been and shall be. My veil no one has lifted;” while the symbolical figures discovered in the ruined walls of her temple, give, in their expression and attitudes, a clear reproduction of the visible symptoms of the peculiar trance we now call the “Sleep of Hypnotism.” Again, on the huge Zodiacal circle in the vault of the Temple at Denderah, the goddess is depicted holding a child by the hand, while she passes her other hand in front of it with the movement of a magnetizer.

Thus does the dethroned deity, long after her worship has dropped into oblivion, unveil her hidden features and disclose to us the antiquity of these curious phenomena

which the 18th century claimed to have brought to light for the first time, and which the second half of the 19th century has placed among the regular objects of physiological and psychical studies.

East Indian mythology represents Vishnu with flames issuing from his finger-ends. In our own time, some *subjects* affirm that they see blue or violet-colored flames issuing from the experimentalist's finger-tips.

Hippocrates,* the greatest of Greek physicians, believed in somnambulistic powers. We find ancient writers continually referring to similar beliefs, and while we are willing to admit that credulity played a very important part in such matters, it is impossible to deny that certain *subjects* did present an unusually abnormal condition, well calculated to impress the beholder.

The history of the later ages is full of similar narratives. The following are the names of the most trustworthy experimentalists of that early period: Cardan,† who mentions a state of insensibility produced by a magnet; Paracelsus,‡ who asserts his theory of double magnetism, and shows that the magnetic fluid of a healthy body attracts the weaker and deteriorated magnet of an unhealthy one; so also do Van Helmont, Burgraeve, Helminotius, Robert Fludd,§ Father Kircher, (a Jesuit priest), and Maxwell, in the sixteenth and seventeenth centuries. But the close of the eighteenth century, filled as it was with feverish and mystical activity, was inevitably destined to produce such a man as Mesmer, whose name has

* Born 460, B. C., died 377, B. C., surnamed "the Father of Medicine."

† Giorolemo Cardano, an Italian physician (1501-1576).

‡ Real name: T. B. Von Hohenheim, German physician and alchemist, (1493-1541).

§ English philosopher (1574-1637).

been perpetuated in the English language in the word "mesmerism."

Friedrich Anton Mesmer was born in Baden, Germany, in 1733. At the age of thirty-three he defended before the University of Vienna, his thesis for the degree of Doctor of Medicine, and the subject he had chosen was "*The influence of the stars and planets as curative powers.*" In this curious paper, Mesmer argued that the sun, moon, and stars acted on the human body by means of a subtle fluid, which he called *animal magnetism*, in order to point out its affinity with the magnet. Later the young doctor fell in with Father Hell,* a Jesuit who cured diseases by means of magnetized iron. He perceived at once the similarity of experiments, and tried the magnet, and soon the Austrian newspapers were full of accounts of his numerous cures. Ostervald, director of the Academy of Science at Munich, who was suffering from paralysis, and Bauer, professor of mathematics, who was afflicted by persistent ophthalmia, both declared themselves cured by his system.

It is not known why Mesmer was obliged to leave Vienna; but he made Paris his Mecca, and was fortunate enough to convert to his ideas d'Eslon, the physician of Comte d'Artois and one of the Faculty of Medicine professors. His success was very great: almost everybody was anxious to be magnetized, and he was soon obliged to call in assistants. Here he constructed his *baquet* or tub (described further), which was magnetized by him and supposed to transmit magnetism. Deleuze, the librarian at the Royal Botanical and Zoological Gardens,

* Austrian astronomer (1720-1792).

has left the following account of the most sensational features of Mesmer's experiments:

"In one room, under the influence of rods issuing from tubs filled with large bottles—the said rods applied upon different parts of the subjects' bodies—the most extraordinary scenes took place daily. Sardonic laughter, piteous moans and torrents of tears burst forth on all sides. The subjects were thrown back in spasmodic jerks, the respirations sounded like death rattles, and terrifying symptoms were exhibited. Suddenly the actors of these strange performances would frantically or rapturously rush towards each other, either rejoicing and embracing or thrusting away their neighbors with every appearance of horror.

"Another room was padded and presented a different spectacle. There, women beat their heads against the wadded walls or rolled on the cushion-covered floor, in fits of suffocation. In the midst of this panting, quivering throng, Mesmer, dressed in a lilac coat, moved about, extending a magic wand towards the least suffering, halting in front of the most violently excited and gazing steadily into their eyes, while he held both their hands in his, bringing the middle fingers in immediate contact, to establish the *communication*. At another moment he would, by a motion of open hands and extended fingers, operate with the *great current*, crossing and uncrossing his arms with wonderful rapidity to make the *final passes*."

These *Demoniacal Convulsions*, as they were called, attracted a number of idlers of both sexes, who came to the Austrian miracle-monger, either with a view of obtaining relief, or to experience a new sensation. Intoxi-



MESMER AND HIS PATIENTS.

cated by success, and his surroundings, Mesmer was led away from his early purpose—the healing of the sick by human magnetism—and ended by becoming nothing but a charlatan, thus ruining both himself and his cause. There can be no doubt that all these scenes, ostentatiously and noisily got up by Mesmer and his imitators, threw discredit on the word *magnetizer*, which for most people became synonymous with *charlatan*.

The Academy of Science, when requested by Mesmer to investigate his experiments, declared itself unable to agree; and the Royal Society of Medicine threatened to erase d'Eslon's name if he did not cease supporting Mesmer.

In 1884, two official commissions were appointed, one composed of members of the Faculty of Medicine and of the Academy of Science—among these Franklin—at this time American Minister to the court of Louis XVI.—and Lavoisier, with Bailly as chairman; the other, of the members of the Royal Society of Medicine.

Binet and Féré, in their book on animal magnetism write: "It is interesting to peruse the reports of these commissions; they read like a debate on some obscure subject of which the future has partly revealed the secret."

The two commissions came to the conclusion that the phenomena were due to imitation, imagination and contact, that they were dangerous and must be prohibited. De Jussieu was the only member of the commission appointed by the Royal Society of Medicine who discerned anything more than imagination in the *Demoniacal Convulsions*. He believed in a fertile but yet undefined truth,

and absolutely refused to agree with his colleagues' sceptical conclusions.

However, a couple of years later, a pupil of Doctor Mesmer, the Marquis de Puységur, attracted all the scientific world to his château, near Soissons, where he obtained most curious results. There is no doubt that he discovered, as early as 1784, a state which was named "artificial somnambulism." Apart from some falsely interpreted phenomena (thought-transference, clairvoyance, etc.) the chief characteristic of this state was a sleep in which the ideas and actions of the magnetized person could be directed by the magnetizer. Whether Mesmer knew of this condition or not is uncertain, but it seems probable that he did. About the same time Pétetin, a Lyons physician, occupied himself with magnetism; besides catalepsy, Pétetin describes phenomena of sense transference (hearing with the stomach). The French Revolution and the wars of the Napoleonic era repressed the investigation of magnetism in France till about the year 1815. Public opinion became infatuated once more about this new agent that was to be the gratuitous means of curing mankind.

After series after series of experiments covering the third and fourth decades of the nineteenth century, and in which took part several recognized notabilities of the scientific world, the Academy of Medicine of Paris was persuaded to take up the subject, and the committee appointed by it admitted in their report that magnetism did exist:

"Considered either as an agent of physiological phenomena or as a curative means," read the secretary of



PUYSEGUR AS A MESMERIZER.

the committee, "magnetism must be allotted a place in medical knowledge; consequently doctors alone must make use of it, or at least superintend its application. The commission has collected and noted down facts important enough to warrant the Academy's authorizing the study of magnetism as a serious branch of *psychology and natural history*."

But the Academy, astonished at, though not convinced by, this report, refused to commit itself in June, 1831, and in 1837 it actually concluded on the non-existence of magnetism.

But other official bodies did not thus obstinately close their eyes to what was becoming almost as evident as the recurrence of day after night. In the year 1812, the Prussian Government sent Professor Wolfart to Mesmer, in order that he might there make himself acquainted with the subject. He came back a thorough adherent of the Austrian scientist, and introduced magnetism into hospital treatment. Then magnetism began to flourish so much in Berlin that the physicians of the Prussian capital placed a monument on the grave of Mesmer at Mörsburg, and theological candidates received instruction in physiology, pathology, and the treatment of sickness by vital magnetism.

About the same period, Baron du Potet invented the magic mirror which convulsed so many people. The famous magnetizer first traced on the floor with a bit of charcoal, a complete and blackened circle. The subject drew near and then receded, looking alternately at the spectators and at the circle; soon the effect was visible. The *subject's* head was lowered, his whole person be-

came uneasy, he turned round and round the circle without taking his eyes off it, then bent lower, rose again, drew back a few steps, then advanced once more, frowned, looked gloomy, and breathed heavily. The most curious scene then followed. The *subject* without doubt saw images reflected in the mirror, for his emotion, his strange motions, his sobs, his despair and fury, all proved the disorder of his mind. For him the apparitions were realities, and a series of future events, represented by images he understood, unfolded themselves before him, filling him in turn with joy or sadness. Soon he was seized with a frenzy, strove to take hold of the phantoms, and dashing forward stamped with his foot on the blackened circle, and the operator had to put an end to this dramatic performance. In all this du Potet fancied he saw magic; but hypnotism, obtained by physical means, brings about the same results.

It was at the same time, that spiritualism (table-turning, spirit-rapping, etc.) made its appearance, and engrossed public attention. There soon arose an unreasoned belief that it was somehow connected with animal magnetism, and the alliance thus established did a great deal toward discouraging and disgusting many of the sober, scientifically inclined minds that had begun to think of magnetism as a promising field for respectable investigation. It took years to undo the harm thus caused by this confusion between what has proved to be simple physiological phenomena, and this extraordinary delusion of the brain and senses which is still making dupes and victims, the world over, under the name of "spiritualism."

CHAPTER II.

PROFESSOR CHARCOT AND HIS SCHOOL.

We have shown how magnetism, in its earlier garb and mixed up with many pretenses, rose, prospered and fell. Not once, however, had the word *hypnotism** been pronounced, and yet it is this very hypnotism, which under the name of *animal magnetism*, had undergone the most varied destinies without ever having passed through the test of a thorough scientific scrutiny. In fact, its success was all due to the halo of the miraculous that surrounded it. It was necessary to free it from these useless and mischievous trammels in order to restore its credibility. Under its earlier name, rehabilitation would have been almost impossible, for although justice should be done to those who carefully preserved the vital spark of magnetism and the belief in its future development, their errors, illusions, and indeed, the easy triumphs and questionable practices they indulged in, were calculated only to discredit it.

It has often been asked why the name given to *sleep induced by artificial means* has been changed, and why scientific men use the word *hypnotism* for what is nothing more than *animal magnetism*. Are we to see in this a desire to hide how much they have borrowed? Such an

* *Hypnotism* comes from the Greek word "upnos," meaning sleep. The word *Hypnosis* (same meaning) conveys more clearly the idea of the artificial state brought about by *Hypnotism*. However in this book—as in most works on the subject—both words are used to mean one and the same phenomenon.

assumption would be utterly wrong. The earlier discovery—magnetism—is due to Mesmer and his successors; the second—hypnotism, an offshoot of the other—is due to Doctor James Braid,* a Manchester surgeon, who was the forerunner of the hypnotizers of the present day, and more particularly of the School of the Salpêtrière—the great Paris Hospital for Insane Women. His discovery was made in the following manner.

In November, 1841, he witnessed a public experiment made by a M. Lafontaine, a French magnetizer. He thought the whole thing a farce; a week after, though, he attended a second exhibition, and saw a subject who really could not open his eyes under the so-called influence of the demonstrator. Dr. Braid concluded that this was due to some physical cause. The fixity of gaze must, according to him, paralyze the nerve centres of the eyes and their surroundings. Returning home, he made a friend gaze steadily at the neck of a bottle and his own wife look at an ornament on the top of a china sugar-bowl; in both cases, sleep was the consequence.

From these simple, but indisputable experiments hypnotism had its origin, and the fact was established, that *sleep could be induced by physical agents.*

Thus was revealed an essential difference between two methods inducing practically the same sort of phenomena; for *magnetism* supposes a direct action of the magnetizer on the magnetized subject: while *hypnotism* demands no such action. This distinction is not generally made, hence the confusion between the two systems.

Whenever the word *hypnotism* is therefore employed,

* Born in Scotland 1795; died 1860.



Dr. Braid and his First Subject.

the reader must remember that it is sleep *induced* by physical agents that is understood, that is to say sleep obtained by fixing the gaze on some object (as Braid discovered) or by some sudden sound, like that of a Chinese gong (such as is used at the Salpêtrière) or by some other appeal or shock to one of the five senses.

When, on the other hand, the word *magnetism* is employed, it will be understood that reference is made to a subject passing from a waking condition into that of sleep, owing to the personal action of the experimentalist on the experimentized. This explanation must be taken into due consideration, independently of the frequent and unavoidable intermingling of hypnotic and magnetic actions.

Dr. Braid, without doubt, discovered a new method, and a new science, but he certainly was not so absolute in his denial of magnetic influence as has since been asserted. He noted down the attitudes retained during catalepsy, the power of a puff of breath to awaken, the different phases in sleep, verbal *suggestion* and *suggestion* when in the waking state. Unfortunately he enumerates all these phenomena confusedly, pell-mell, without any distinction of period. This omission on the part of Braid was supplied by the Salpêtrière School, which points out that hypnotism is a nervous condition presenting characteristics so varied in their intensity that several distinct phases or degrees have been recognized during which the subject acts and reacts differently.

The Manchester hypnotist thought he could localize the mental faculties in certain parts of the brain; and that by touching the corresponding places on the head of a

hypnotized subject he could at his choice awaken either a thieving propensity or a feeling of piety, etc. This was the early form of what is known nowadays as *suggestion*.

Braid, being a medical man, at once thought of making use of hypnotism as a healing means, and he has left records of several cures effected in cases of diseases of the eye, nervous headaches, epilepsy, etc., etc. Public opinion was however not prepared to accept this scientific novelty. Braid and Carpenter, his associate, failed to get a recognition from the British medical authorities in 1842, and an investigation of their experiments was even refused.

In America, in 1848, Dr. Grimes obtained both in the waking state and by verbal suggestion, all the phenomena of hypnotism. His *electro-biology*—as he called it—met for a time with a certain amount of success.

In France, many extracts from Braid's works were published, but they failed to attract any notice. It was only in 1859, that Professor Azam, of the Faculty of Medicine at Bordeaux, repeated Braid's experiments and published the results; he particularly mentioned a state of general anesthesia (insensibility such as follows the application of chloroform, etc.), during which surgical operations had been performed while the patients were under the influence of hypnotic sleep.

About the same period, several distinguished physicans in England and Belgium held that the nerve force non-utilized by thought during sleep was accumulative, and that a stimulated or excited sense acted on a special part

of the brain; so that a mental impression produced the same effect as an impression due to one of the five senses.

In 1876, a man who thought himself about to die, wrote to the great French physiologist, Claude Bernard, saying that he would like to ascertain before departing this life whether he had deceived himself about certain facts he had observed for the last twenty-five years. Claude Bernard, who was President of the French Biological Society, at once acceded to the demand. A commission was named, composed of Drs. Charcot and Luys, with Dr. Dumontpallier as secretary. After a series of experiments which extended over more than a year, they confirmed the *metalo-therapeutic* theory discovered by Dr. Burq—such was the name of the man who believed himself on the eve of death.

His discovery had been made in the following manner.

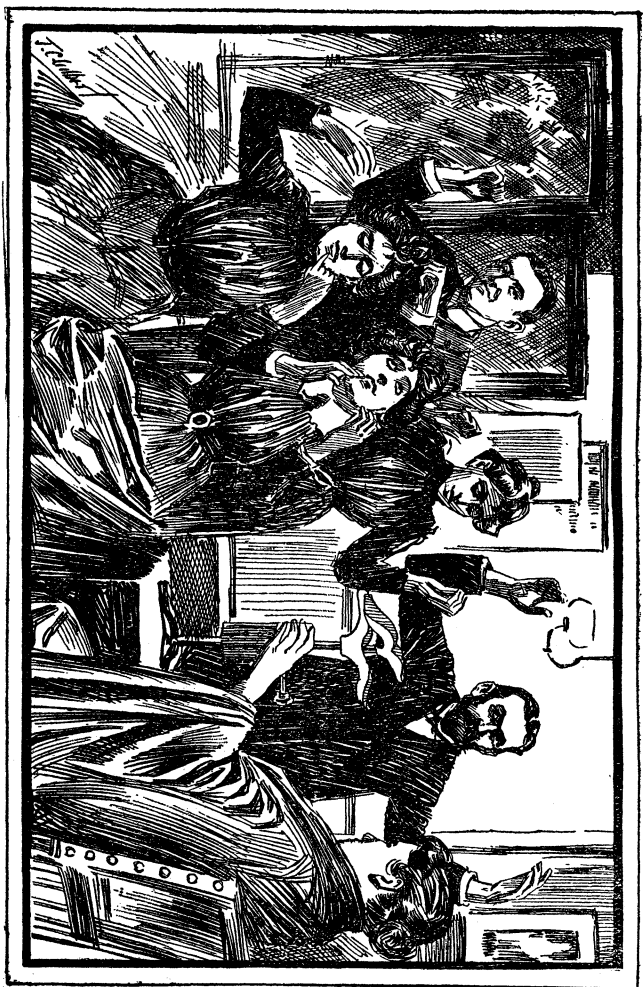
While practising as a young doctor, he had one day been obliged to leave his office, and had deemed it advisable to lock up a female patient in his absence. Just as he was hurrying out of the house he heard the sound as of a body suddenly falling. He rushed back into the room and found his patient in a state of catalepsy. Dr. Burq was at that time studying magnetism, and he at once investigated in that direction for the cause of this phenomenon. He noticed that the door-handle was of polished brass; the next day he wrapped a glove round the handle, again shut the patient in, and this time nothing occurred. He questioned the subject, but she could give no explanation. He then tried the effect of polished brass on the subjects placed at his disposal at the Salpêtrière and the Cochin hospitals, and found that a great

number were affected by its brilliancy. He was thus able to restore sensitiveness to some who had been deprived of it for many months. From that day metaloscopy (or "the effect of metal surfaces upon the nervous centres") was established, and Dr. Burq experimented with all the different metals, and found out their different actions.

Magnetism had led to this important discovery, and the authentication of it recalled to mind the forgotten theories of Braid. Dr. Dumontpallier who recognized in Burq a conscientious and intelligent inquirer considered him the promoter—perhaps unconsciously so—of the revival of hypnotism.

The experiments were renewed at the Salpêtrière, and Dr. Charcot was led to adopt Burq's theory by the following circumstance.

One day as he was going his rounds at the hospital, he received the visit of several English doctors, who, in the course of a discussion insisted on the great difference that existed in nervous diseases in England and in France. Anesthesia, more especially, they urged, presented the greatest differences. The eminent French physician, in order to demonstrate his argument, suddenly pricked the arm of an habitually insensible patient. But to his intense surprise, the patient screamed with pain, at which the English medical men exchanged glances of undisguised satisfaction. Charcot, anxious to clear up the mystery, if mystery there was, made a thorough examination, and discovered that Burq had played the harmless joke of applying a gold plate to the patient's arm, and thereby restored the sensibility which for some



The Effects of Luy's' Rotating Mirror.

years past had disappeared. Charcot did not hesitate any longer to join in the labors of the commission on metalotherapy (treatment by the use of metals) and was soon convinced of its value. We are reaching now the event which in its importance concerning the study of hypnotism ranks with Mesmer's *baquet* and Braid's first discoveries.

In 1878 Professor Charcot and his pupils began a series of experiments, and started a new scientific movement which continues to the present day. Many itinerant magnetizers had popularized and thereby made known Burq's early tests; some, indeed, had acquired a certain notoriety, their public exhibitions and the dangers their subjects were said to incur leading to a closer supervision. Donato, a Belgian, Hansen, a Dane, and Durville, Reybaud, and Auffinger, all Frenchmen, attracted large crowds, and, notwithstanding the prohibitions imposed, the enthusiasm they evoked for the new ideas has not diminished; the impulse came from too great an authority.

Dr. Charcot was fortunate enough not only to rehabilitate hypnotism, but to amply avenge the academic misadventures it had undergone by an essay he presented to the French Academy of Science in 1882, entitled "*On the distinct nosography* of the different phases comprised under the name of hypnotism.*" His lectures at the Salpêtrière also greatly contributed to rally physicians to the cause of the completed discovery.

Since then, the study of hypnotism has been closely followed up, and numerous experiments at the Salpêtrière

* Nosography is the technical word for "description of diseases."

and the Charité Hospitals in Paris; at Nancy, in French Loraine, and in every leading centre of medical studies, all over the world.

In our preface, we gave a list of over thirty prominent writers on the subject, the majority of whom belong to the élite of the scientific profession. Hundreds of other works have been published and circulated, treating of hypnotism under all possible aspects.

The predominance of the School of the Salpêtrière is now a recognized fact, due to its chief having been, in his life time, a member of the renowned *Institut de France* (Academy of Science section). This learned body is justly considered as one of the vivifying arteries from whence knowledge flows. It is not therefore very surprising that once hypnotism was admitted—in the person of its leading exponent—within its precincts, its existence and effects should have been acknowledged by the scientific world at large.

It is the Salpêtrière School that first had the idea of classifying the different phases of hypnotic sleep into the *lethargic*, *cataleptic* and *sommambulistic* stages, a classification denied by the School of Nancy, the centre of what might be called “the mental power theory” opposed to the “physical power doctrine,” adopted and preached by Charcot. As the Nancy doctrine has gained a large number of adherents in this country, it is only fair that we should give it, herein, the honorable place it deserves.

CHAPTER III.

THE MENTAL THEORY AS ADVOCATED AT NANCY.

Dr. Liébeault, the founder of the School* of Nancy, has not always enjoyed his present renown, nor the esteem that is now very justly accorded him.

He was born September 17th, 1823, at Favières, a village about thirty miles from Nancy. The son of peasants, he first studied for the priesthood, but afterwards became a medical student at the University of Strasbourg (then a French city). In 1848, he read something on magnetism, and was at once struck with the difficulty of being neither duped nor cheated by the subjects. He sought for a book on these phenomena, and an honest subject to experiment on; and having found both, soon became convinced of the reality of the hypnotic sleep. He was at that time (1850) a successful practicing physician, settled about eight miles from Nancy. One day, as he offered to magnetize the epileptic daughter of a farmer, the father made this discouraging reply: "This is a new-fangled idea; you know how such innovations are looked upon, especially in the country. You will lose all your clients." Liébeault was thus induced to lay aside his beloved study; ten years later he was roused to action by the perusal of a pamphlet upon Dr. Azam's experiments. He decided to settle in Nancy, and to attend

* The word "school" is not taken here in the meaning of "educational institution;" it refers to a group of scientists whose ideas on the subject at issue were in close sympathy and whose center of action is in the city of Nancy.

gratuitously all who chose to try the new method of treatment. Finally, in 1866, he published his book on "*Sleep and analogous conditions specially considered in regard to the influence of mental or physical action.*"

Time progressed and hypnotism grew apace. Dr. Liébeault, now well known, even famous, was not changed in the least; his unselfish and modest devotion to science *per se* remained unaltered. Dr. Liébeault's pupils revealed him to the world of science; it is they who have quoted him, and by their own authority have imposed him on public attention.

The clients of the Nancy doctor were generally desperate cases, either too incredulous or too sanguine; this is the usual fate of private practitioners experimenting a new system; they have not their choice of patients, unless, like Charcot, they are at the head of a large institution for the nervously affected and the insane. Still, Liébeault's method had something so ingenuous and simple about it, enhanced by a tone and air of such profound conviction, his voice had such fervor, that he carried away his patients with him.

Here is, in brief, his mode of operation:

After having inquired of the subject what he was suffering from, without any further or closer examination. Dr. Liébeault would place his hand on the patient's forehead and scarcely looking at him, say: "You are going to sleep." Then, almost immediately, he closed the eyelids, telling the man he was asleep. After this, he raised the patient's arm, and said: "You cannot put your arm down." If he did put it down, which would be almost invariably the case at first, Dr. Liébeault appeared hardly

to notice it. He then turned the patient's arm round, confidently affirming that the movement could not be stopped, and saying this, he turned his own arm rapidly round, the patient remaining all the time with his eyes shut; then the doctor talked on without ceasing in a loud and commanding voice. The suggestions began: "You are going to be cured; your digestion will be good, your sleep quiet, your cough will stop, your circulation become free and regular; you are going to feel very strong and well, you will be able to walk about," etc., etc. The doctor hardly ever varied this speech. Thus he fired away at every kind of disease at once, leaving it to the client to find out his own. No doubt he gave some special directions, according to the disease the patient was suffering from, but general instructions were the chief process.

The same suggestions were repeated a great many times to the same person, and, strange to say, notwithstanding the inevitable monotony of his speeches, and the uniformity of both style and voice, the master's tone was so ardent, so penetrating, and so sympathetic, that no one could listen to it without a feeling of intense admiration.

The school of Nancy does not admit that there are distinct phases in this artificial sleep, but only different degrees that determine its intensity. It is owing to this opinion that the school is said only to practice the *lesser* or *minor hypnotism*; whereas that of the Salpêtrière studies the *greater* (or *deeper*) *hypnotism*. This is indeed a mere question of words. As we shall see, further on, in the first degree, there is numbness, heaviness of eye-

lids, somnolence; sometimes even the subject is unable to open his eyes. In the second degree, the eyelids remain closed, the limbs stiffen in a state of catalepsy, the uplifted arm remains upraised. In the third degree, the automatic movements suggested continue in spite of the subject, the insensibility being greater or lesser according to his state.

Like its Paris rival, the School of Nancy is far from being unanimous in its opinions.

For instance, Dr. Liébeault believes in the efficacy of *magnetized water* as a curative means,* that is, water into which the practitioner (founder of the school), has dipped his fingers; and when he first noticed the influence this liquid had upon young children of a few weeks or a few months old, he—the adept and apostle of the theory of *suggestion*—felt his convictions shaken. He began to doubt whether *suggestion* was indeed the final expression of hypnotism, and whether the fluid theory ought to be definitely set aside.

Always continuing the description of the School of Nancy methods here is an account of Professor Bernheim's mode of suggestion. A robust old man of about seventy-five years of age, paralyzed by sciatica that caused him intense pain, was brought to him. He could not put a foot to the ground without screaming with pain. "Lie down, my poor friend, I will soon relieve you," Dr. Bernheim said. "That is impossible, doctor." "You will see." "Yes, we shall see; but I tell you we shall see nothing." The old man looked sullen and stubborn. Strangely enough, he soon went off to sleep, fell into

* So did Mesmer before him.

a state of catalepsy, and was insensible when pricked. But when Dr. Bernheim said to him, "Now you can walk," he replied, "No, I cannot, you are telling me to do an impossible thing." After using every means of persuasion, insinuation and coaxing, Dr. Bernheim suddenly took up an imperative tone, and said, "I tell you, you can walk; get up." "Very well," replied the old fellow; "I must, if you insist upon it." And he got out of bed. No sooner, however, had his foot touched the floor than he screamed even louder than before. The Professor ordered him to step forward. "You tell me to do what is impossible," he again replied, and did not move. He had to be allowed to go to bed again and thus the experiment turned out but half satisfactory.

This imperative system recalls that of Faria, the miracle-maker, who in 1813 came from India and had some success in Paris. Binet and Féré give us the following account of him: "He made the subject sit down in an armchair and shut his eyes; then he called out in a loud imperious voice: 'Go to sleep!' This charlatan well understood *that the cause of somnambulism lies in the subject himself.*" Perhaps it is rather hazardous to make such a categorical assertion; however, Dr. Luys, in his lectures at the Charité in June, 1888, often repeated: "The hypnotizer is nothing; the hypnotized subject is everything."

Thus, Dr. Bernheim considers that the physical phenomena produced at the Salpêtrière are merely the result of suggestion.

Professor Liégeois, of the Law School of Nancy, is of the same opinion; he even admits the idea of *criminal*

suggestion, that is to say, the possibility of implanting the idea of a crime in a deep and lasting enough manner on a subject's mind for him to commit it after he is awake from the hypnotic sleep. Such is not the opinion of the vast majority of experts, but, further on, we will set forth the experiments that have been made with a view of either confirming or invalidating this startling theory. The School of Nancy denies the real action of physical agents, such as magnets or brilliant surfaces, in producing phenomena; and yet the School of Paris operating with magnets—either concealed or rendered invisible by suggestion—have obtained results in cases where wooden magnets—suggested as real—have produced no effect.

The experiments are often contradictory, and vary with the different operators and subjects; sometimes indeed with the same subject, according to the state of his nervous condition; we are therefore far from being completely enlightened on the question of the psycho-physiological* phenomena of hypnotism.

The School of the Salpêtrière has pronounced itself very severely upon the nature of the experiments carried on by the Nancy School. "It appears most strange," they say in Paris, "that at Nancy they have never been able to produce in the sleeping subject physical *contractions* by stimulating the nerves, tendons or muscles; we have constantly noticed these contractions whenever we sought for them; Braid himself mentions their existence several times, and yet Dr. Bernheim and his friends who operate on the same kind of subjects have no knowledge

* Psycho-physiological is taken to mean the possible relation between mind and body.

of them. What can be thought of subjects that fail in this physical—indisputable—test so devoid of a material sign? If it be indeed true that they never offer any of the physical characteristics of hypnotism, if the phenomena they present are obtained only by suggestion, we must come to the conclusion that none of these subjects furnish us with any scientific proof that they are really asleep. Most assuredly our scepticism is not absolute, but if we were called upon to make a *medico-legal* examination of one of these particular subjects, it would be impossible for us to decide with any degree of certainty whether he was sincere or not.”

In reality the difference between the two schools—the one claiming the necessity of the use of material elements, the other ascribing all the phenomena to pure mental suggestion—this difference does not proceed from the subjects, but from the operators; they are due to the *mode of culture or training* of the subjects, and, above all, to the manner in which the studies are conducted; the results of the experiments depend on the turn that has been given to them. If *suggestion* is employed as the sole agent, the results will be only those of suggestion; this is what has taken place at Nancy. But if the study of the *physical characteristics* be followed up, they will be found, in some patients, at the very outset, and in most cases they will be developed by mechanical means, so to speak, after a sufficient length of time.

This, as the reader will readily understand, serves to uphold our prior argument:—that is, the preservation of free will in the hypnotic condition. We shall have to refer to the matter more lengthily.

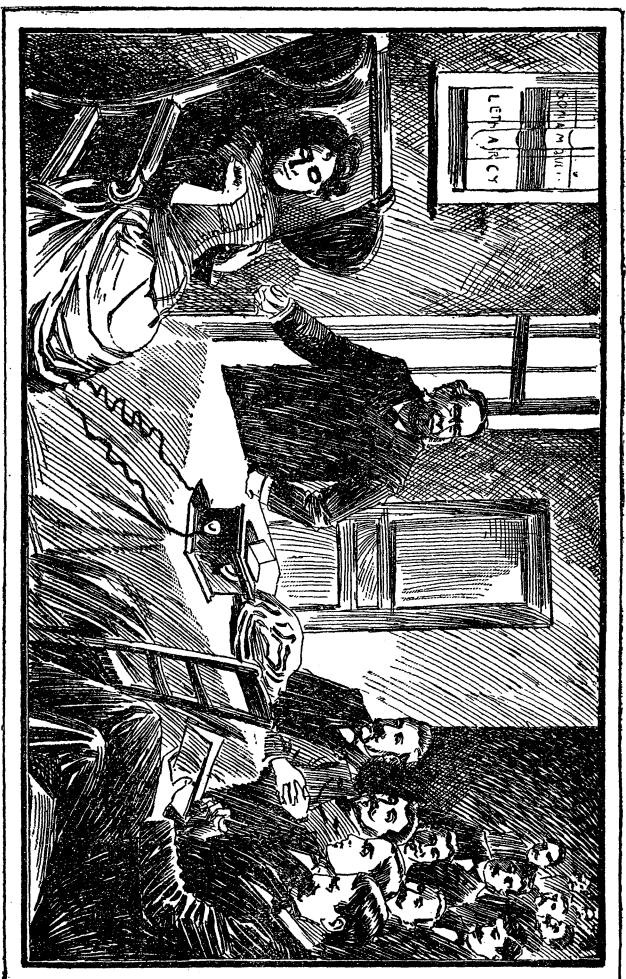
CHAPTER IV.

THE CHARITÉ HOSPITAL EXPERIMENTS.

The next important centre of hypnotic researches, now somewhat reduced in reputation on account of the recent death of its chief and originator, Dr. Luys, is the school of the Hospital de la Charité, in Paris; it may be said to have acted as a kind of connecting link between that of Nancy and the Salpêtrière, accepting as it does both methods and theories. Dr. J. Luys, member of the French Academy of Medicine, performed here many curious experiments. But teacher and tests have shared the usual fate of pioneer investigators and novel facts and were viewed at first with great suspicion. Emotions produced by physical agents, and the action of medicines not immediately applied, are even now by no means recognized as facts by the scientific world. After examining the different phases of hypnotic sleep, we shall relate the various phenomena as they come under our notice.

Dr. Luys, when physician at the Salpêtrière, was chosen a member of the commission appointed by the Biological Society to examine Burq's discovery. He was thus enabled to follow up and test Charcot's assertions on his own patients, to form an unbiased opinion, and by pushing forward in that direction to revolutionize the scientific world by his discoveries. The action of physical agents—even at a distance—and the power of suggestion are both admitted by Dr. Luys and his followers.

The hypnotic state, generally produced by the contem-



Dr. J. Luytens, Lecturing Before the "Charité" Hospital Students.

plation of a bright spot, a lamp, or the human eye, is in Dr. Luys' method often induced by a peculiar kind of mirror. This mirror is made of pieces of wood cut prismatically, in which fragments of mirrors are incrustated; they are generally double, placed crosswise, and made to revolve automatically. If the little mirrors in each branch are placed in parallel lines in front of a patient, and the rotation is rapid, the optic organ soon becomes fatigued, and a calming, natural doze ensues. By degrees, as the individual is trained to yield more and more completely, he falls into one of the regular phases of hypnotic sleep. Without a word, without a suggestion or any other action, Dr. Luys made wonderful cures, and Wecker, the famous oculist, by the same means entirely conquered spasms of the eyelids.

Dr. Luys had also several methods of exciting emotion in hypnotized subjects, either by placing them in particular positions or by touching certain muscles of the face; these results were obtained by placing on the neck of the subject, tubes filled with various medicinal substances.

Thus, if an hermetically sealed tube containing a medicine unknown to the subject was placed in contact with the neck, an effect, varying according to each substance, was produced. Thus alcohol develops merry or furious drunkenness, according as it is distilled from corn or from wine; pure water produces hydrophobia; ipecac, vomiting; oil of cherry-laurel, religious ecstasy; nitrobenzole, convulsive shocks through the whole body; valerian, feline movements and crawling on all fours; etc.

There have even been cases in which the experiments have taken place without the professor's orders or knowl-

edge; for instance, some tubes were brought in at hazard, and the operator, thinking he had one kind of medicine in a certain tube, was astonished to see it produce the effects of another. On examination it was found that the assistant had made a mistake, and that the attitude of the subject was the one to be expected. The idea of suggestion must therefore in this case be set aside.

Colonel Albert de Rochas, a military engineer of repute, stated as early as 1887: "If an individual can stiffen his finger under the influence of another will, or even under the idea that this phenomenon has in some way been roused in him, it does not necessarily follow that the stiffness might not be produced on the finger by the contact or approach of a foreign body, without the mind taking any part in the act." This is an infinitely complex question, and moreover not a very general one, for there is little chance of verifying it, the subjects who present these actions being most rare.

Dr. Luys also induced emotions by colored balls. For this purpose he used hollow glass balls, either blue, yellow, red or green. The subject having been sent to sleep (the deepest or *lethargic* stage), a shade was placed over the subject's eyes, and suddenly, under the action of one of these balls, he opened his eyes and manifested a distinct emotion. If a blue ball was presented to him, terror and horror was depicted in his gaze; if a yellow one, joy and mirth. According as the colored surface was larger or smaller the emotion was more or less violent. The same thing took place with magnets; according to the nature of the pole used, the countenance assumed



A Group of Subjects Hypnotized by Dr. Luys' Revolving Mirror.

different expressions. This is a most interesting *psychic* action repeated now by all experimenters. Thus the north pole placed in the hand causes joy and mirth, the south pole repulsion. The reunion of the two forces—that is to say a pole placed in each hand—restores a state of indifference.

Taking for a basis the transfer of insensibility, emotions or contractions from one point of the organism to another, by the action of magnets, and the analogy that exists between these latter and the human body, Dr. Luys adopted the idea of putting his patients in communication one with another. This is termed *transfer*. Some individuals are easily disposed to take, for the time being at least, the diseases of others; and, when brought into contact with the sick, seem for a few minutes to cure them or to greatly relieve the pain.

As an example: The pulse of one of the doctor's patients had, by the use of magnets, been reduced from 140 pulsations to 80, when placed in contact with a hypnotized subject; and the latter soon experienced such a difficulty of breathing that the experiment had to be cut short. Nevertheless three sittings sufficed to produce this wonderful slackening of the pulse. Patients suffering from any disease of the circulation have been much alleviated by these means.

The following is the mode of operating to obtain this transfer of symptoms:

The trained, easily hypnotizable subject and the sufferer are seated opposite each other. The first is sent to sleep while holding the hands of the patient; a powerful mag-

net is moved round, first describing a closed circle, and then turning the north pole to the diseased part or organ.

At that moment, it seems as if a peculiar kind of contagion takes place, a transfusion of vitality, a propagation of nerve influx. The hypnotized subject suffers



THE ACTION OF THE MAGNET.

but little, still he does suffer; while the sick person, his associate in this struggle against disease, is positively relieved for the time being.

If the hypnotized subject is hot, the patient feels the

same sensation, and perspiration will burst out on the same parts of the body in both individuals.

It seems as if we were reaching the realm of the miraculous; but let us remember how what appeared well-nigh impossible at one period, became quite normal and generally accepted at another. Railways were declared to be preposterous; the phonograph was attributed, by the academician Bouillaud, to ventriloquism. Our common sense is the result of our education, information and surroundings. In the scientific domain nothing can be declared absolute. Still, when we are confronted by some new and utterly unknown fact, it is wise to proceed with the greatest caution, to test and verify every step, every detail, every symptom, and to wait till time has given it its sanction.

Let us add that, when not only scientific ideas are in question, but perhaps moral principle as well, prudence seems absolutely and imperatively necessary.

CHAPTER V.

PROGRESS OF THE STUDY OUTSIDE OF FRANCE.

In other countries as well as France people began to busy themselves with hypnotism, chiefly on the lines of the School of Nancy. It is true that, as has already been mentioned, the study of hypnotism had been begun in various centers in connection with the work of Charcot. Especially in the north of Europe, a great number of investigators interested themselves in it. In Belgium the eminent psychologist Delboeuf, of Liège, smoothed the way for it; numerous physicians—Van Renterghem, Van Eeden, De Jong, and others—made use of hypnotism in Holland for curative purposes. In Denmark, Sweden and Norway we find also a series of inquirers—Johannessen, Sell, Fränkel, Carlsen, Schleisner, Velander, and most particularly Wetterstrand, of Stockholm, who, to a very great extent, uses hypnotism in regular medical practice. His work on the subject has been translated into English and ranks among the most reliable. Also in Russia, where Stembo and Tokarski should be mentioned as leaders in this field of investigation.

Hypnotism has, moreover, made its entrance into the lecture-rooms of several German universities. In the regular curricula, lectures are delivered on the subject in Berlin, by the well-known physiologist, Preyer, and at Freyburg, in Baden, by Münsterberg, a distinguished psychologist. In order to facilitate a general discussion of the most important questions in the domain of hyp-

notism, Congresses met in Paris in 1889 and 1900, where nearly all civilized nations were represented, and where a substantial clearing-up of opinions on several important points was attained. In general it may be said that the views of the school of Nancy met with the greatest favor.

In England there exists a society of private investigators—the Society for Psychical Research—which, besides examining certain mysterious phenomena belonging to the realm of spiritualism, also studies hypnotism. Gurney and F. Myers must here be especially mentioned. Before this, in England, Hack Tuke had often called attention to hypnotism and its therapeutic value.

In other quarters of the globe, especially in America, hypnotism has also awakened great interest. An "American Society for Psychical Research" has also been formed in the United States. In several of the South American States serious inquirers have turned to the study of hypnotic phenomena; for example, Octavio Maira and David Benavente in Chili.

We could insert here scores of other names of prominent scientists, all over the civilized world, whose attention has been more or less devoted to this most fascinating study. But the reader is already convinced that hypnotism has, for the time, won great importance and popularity, as may be estimated from the fact that it influences even literary circles. As in former days animal magnetism provided Alexander Dumas and Balzac* with material for romances, so in later times several authors have chosen their themes out of the domain of hyp-

*Balsamo, by Dumas; Louis Lambert, by Balzac.

notism. Those who have become best known are Du Maurier,* Claretie, Belot, Meding, Epheyre. Finally, it must be mentioned that animal magnetism, out of which hypnotism has developed itself, has retained some adherents in the scientific world—F. Myers, Richet, Langley; so that at present we may say with Dr. Max Dessoir (of Berlin), whose Bibliography of the Literature of Hypnotism we have had frequent occasion to consult, that there are now, as far as the theory and practice of the new science are concerned, three schools in presence, to-wit:

- 1, The schools of Charcot and the Charité—Charcot's and Luys' disciples;

- 2, The School of Nancy—Liébeault's and Bernheim's followers;

- 3, The school of the magnetizers or mesmerizers, who trace back to Mesmer and Puységur, and whose belief in personal influence resulting from a fluid emanating from the operator himself, is as strong as it was in their 18th century predecessors.

Each of these groups of earnest investigators will find their theories and their methods fully expatiated upon in this work.

*Trilby, by Du Maurier.

PART II

THEORETICAL.

CHAPTER I.

THE FOUR DIFFERENT STAGES OF HYPNOTIC SLEEP.

1 AND 2. "HYPO-LETHARGIC" AND "LETHARGIC."

Let us now turn our attention to the study of the different phenomena. The statement we have given of the different Schools, initiated the reader to some of the methods by which sleep is induced. We will now give an account of the characteristics of hypnotism as explained by the Paris exponents of the discovery. According to them, it consists of a series of phases, intimately connected, that constitute a kind of progressive scale. First, there is the deep stage, in which the mental faculties disappear; this constitutes the *lethargic* phase; and after that appear the *cataleptic*, the *somnambulistic* and the *waking* phases. Of course, in usual practice, and unless the subject be strangely predisposed, the scale of phenomena follows the reverse order.

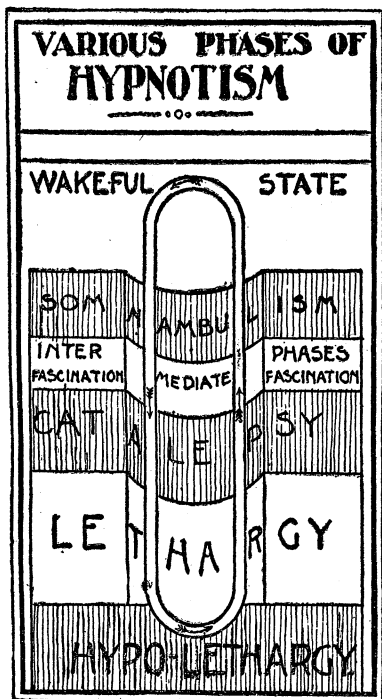
In his eloquent lessons to his pupils of the Charité Hospital, Dr. Luys illustrates these phases in the following manner:—

"Suppose," he says, "a subject be suddenly plunged into a deep well; at the bottom his whole organism will be under the influence of the prevailing darkness. This is the *lethargic* stage, or even sometimes a degree further,

that of *hypo-lethargy* (confining, so to speak, to the state of totally suspended animation, akin to death); in this phase the organism is deprived of all power of reaction, and is in a state of absolute, inert sleep. By degrees, the subject in rising up towards the light, passes through

all the various stages, the terminal of which is the *waking phase*."

We have seen already Braid's method of fixing the eyes on a bright spot to produce hypnotism. The object is held quite close and rather above the eyes; the subject *squints*, the eyes become moist and bright, the look fixed and the pupils dilated. The subject is then in the *cataleptic* phase. If the object is left long enough before the eyes, *lethargy* is produced.



THE VARIOUS STAGES OF HYPNOSIS.

Other visual stimulants, such as close attention bestowed on needlework or on a book, sometimes produce the same effect. An intensely strong light—although this more generally brings about catalepsy—or pressure

on the globes of the eyes, will also throw the subject into the lethargic state.

For the same purpose, the sense of hearing can also be impressed by the repetition of monotonous sounds, such as the tic-tac of a watch, a nurse's lullaby, the sighing of the wind, the crackling of electric sparks, or even the roll of a passing carriage.

Binet and Féré induced sleep by a prolonged impression of musk on the olfactory nerves, and by titillation (or tickling) of the back of the throat.

It has been discovered that certain parts of the skin—the forehead, the ear-lobe, the arm, and the back—when pressed, induce sleep; these spots, small in surface, are called *hypnogenic points*. Some of these points, when touched, induce sleep, others only awaken the subject.

In many cases, the command to sleep is sufficient, especially with trained subjects; in which case the exact moment when the phenomena will take place can be foretold.

To produce hypnosis, operators have used *polarity*, that is, the action of the magnet or of substances assimilated to magnets, and possessing, as they do—and the human body as well—positive and negative poles.

There are, therefore, very many ways of producing lethargy, the deepest state of the hypnotic sleep. Its characteristics are not very marked, except as regards the excessive excitability of the nerves of certain muscles, bringing about a special kind of contraction. This peculiar stage is made evident by the rigidity of these muscles, under the influence of the slightest touch, friction, pressure, or massage, or even of a magnet placed at a dis-

tance. This *contraction* only disappears by the repetition of the identical means that called it into action. For instance:

If the fore-arm is rubbed a little above the palm of the hand, this latter yields and bends at an acute angle. The subject may be suspended by the hand, and the body will be held up without *relaxation*, that is, without the contracted muscles returning to the normal condition. To bring them back to the normal state, it suffices to rub the part diametrically opposed to that which produced the phenomenon; in this case, the fore-arm, a little above the hands. It is the same for every other part of the body.

Under the lethargic phase the subject presents the aspect of a person in a deep sleep; the eyes are either entirely or half closed, the face is expressionless. The body is completely collapsed, the head thrown back, the limbs hanging loose, and if raised and let go, dropping down heavily. The insensibility is complete; at this stage pins and needles can be run into the sleeper and any kind of surgical operation may be carried on with no pain being undergone by the subject.

It is in this stage that the medicated tubes and colored balls produce the *emotions* we shall again witness in the cataleptic phase. The *contractions* can likewise be produced by the application of metals. Iron induces a kind of rigid spasm akin to that occurring in tetanus, and of an intensity proportional to the extent of surface operated on.

The lethargic subject, under the action of these different agents, passes from this deepest state to that of

cataplexy and then opens his eyes. He goes up one degree in the progressive scale.

The duration of this deepest stage varies in length. When hypnotism has been induced, the subject generally awakes naturally at the end of a very short time. If hypnotism is spontaneous, the period frequently extends over a considerable time. Here are a few striking examples.

A few years ago Dr. F. de Courmelles, whose works have been drawn upon very widely in this compilation, examined, in the hospital at Mulhouse (Alsace), a most interesting case. A young girl, twenty-two years of age, had been asleep there for the last twelve days; her complexion was rosy, her breathing quite normal, and her features unaltered. No organ seemed attacked, all the vital functions were performed like in the waking state. She was fed with milk, broth, and wine, given to her in a spoon; her mouth even sometimes opened of itself at the contact of the spoon, and she swallowed without the slightest difficulty; at other moments the gullet remained inert. The whole body was insensible; the forehead alone presented, under the action of the touch or pricks, some faint sensibility. However, by a curious peculiarity, her persistent horror for ether seemed to show that she retained a certain amount of consciousness. If a drop of ether was put into her mouth, her face contracted and assumed an expression of disgust. At the same moment her arms and legs became violently agitated, as would be the case with a child when made to swallow some hated dose of medicine.

In the intellectual relations, the brain was not abso-

lutely obscured; for on her mother coming to see her, the subject's face became highly colored and tears appeared on the tips of her eyelashes—her lethargy undisturbed in any other way. She returned to conscious life as abruptly as she had left it, but retained no recollection of her abnormal condition, all notion of time failed her, and thus she fancied it was only the day following her usual nightly slumber; a slumber which in this case had been transformed into a lethargic sleep of more than three months' duration, without any rigidity of limb or any convulsions.

Here is a later case that was thoroughly tested and authenticated. We allude to the starving girl at Bourdeilles, France, Marie B——, who, it was said, had lived for the last eight years with no other nourishment save that derived from rinsing her mouth with plain water, and who, when Dr. Lafon submitted her to a strict and watchful investigation, presented at the end of a fortnight every symptom of inanition and wasting away. She died since, without even waking up from what appeared a most natural sleep.

There have been a large number of cases of spontaneous lethargy,* and without mentioning those of persons supposed to have been buried alive, either while in a state of lethargy or catalepsy—especially during an epidemic—we find many instances on record that have not ended fatally.

A few years ago the whole village of Thenelles (France) was in a state of wonder and amazement over a young girl, who had been in an unbroken slumber

* Frequently called "auto-hypnosis."

for fifteen years! The fame of this strange phenomenon was noised abroad, till the report at last reached Paris, and some of the doctors determined to investigate the case. This subject was then twenty-five years old and presented a considerable emaciation of the abdomen and lower limbs. Her sleep had never been interrupted. The eyelids when raised showed her eyes convulsively turned upwards; and blowing upon them called forth no movement of the lids. Her jaws were tightly contracted, and some of her teeth had been broken off level with the gums in vain attempts to open her mouth. The muscles contracted at the least touch or even breath—a symptom characteristic of lethargy; the uplifted arms remained in the position they were put—a symptom of catalepsy. In these spontaneous cases, both stages seem to have been interwoven.

The subject, a very nervous, irritable girl, had suddenly fallen into this state after an intense fright. She was nourished by liquid food poured into her mouth.

Several years ago, Dr. Seimelaigne, manager of the private infirmary of Saint James, had a patient who died after having been asleep 1,698 days during the last eight years of his life! He had during this period been fed by means of a stomach-pump.

Legrand du Saulle, the famous insanity expert, who died in 1886, published notes on several of these interesting phenomena. One morning, he found, on going his rounds, a patient wrapped in a deep slumber, which lasted from the 9th of September, 1868, till April, 1869, when he died. Another case was that of a patient of

twenty-four years of age, who slept without intermission from the 3d of April till the 1st of October, 1867.

In Dr. Luys' ward, at the Charité Hospital, there was a woman who, without any apparent cause or inducement, fell into the same kind of sleep as that which could be induced in her by hypnotism. She remained in a state of *contraction* during the three days this sleep lasted, and then awoke with the lower limbs paralyzed. Dr. Luys also produced, in the course of his lectures, another patient who had slept for thirty-three consecutive days in an asylum at Bordeaux.

These statements tend to prove that the old-time lethargy is nothing but one of the phases of what is called now hypnotic sleep, and that there is in reality but one kind of lethargy, whether induced or spontaneous.



MARGUERITE BOYENVAL, THE SLEEPER OF THENELLES.

SLEPT 132,000 HOURS AT ONE STRETCH

3 "CATALEPTIC."

Immediately above the lethargic stage—when ascending the scale of hypnotic phases—we reach the cataleptic state. It can be produced either directly, by throwing a fully awake subject at once into this phase of induced sleep; or indirectly, by lifting up the eyelids of a subject already in the lethargic state.

The direct process is somewhat similar to that employed to obtain the preceding state; that is, either by causing the eyes to be fixed on a bright object, or by a sudden sound like that of a Chinese gong, a tom-tom, a whistle, the vibration of a tuning-fork, etc.

The sudden apparition of a solar spectrum in a dark room, a steady look at the sun, the abrupt incandescence of a magnesium or electric lamp, bring about the same result.

The subject is then, so to speak, petrified in the position he was in at the exact moment when he received the impression. Whether seated or standing, walking or on his knees, he remains in the same attitude, with a strange expression of fear depicted in his countenance and gestures. Marble-like immobility is the leading characteristic of this phase. The subject will take any position he is put in; the limbs can be raised without any resistance on his part, but instead of heavily falling down again as in the lethargic state, they will, if left to themselves, retain the attitude that has been given them. The eyes are no longer closed; they are now wide open, but the look is fixed and the countenance remains impassive.

The cataleptic subject does not, however, retain in-

definitely these attitudes; at the end of a few minutes, he returns to a position of rest and sometimes goes down the scale and falls into the lethargic stage. A strong man might simulate this phase, but there are apparatus for testing the reality of the cataleptic state, such as the *sphygmograph*,* or the *cardiograph*,* and they soon show the difference between the sleeping individual and the one who is feigning sleep. The movements of heart and pulse are affected, and the respiration is modified. It must, however, be admitted that an individual trained for some time in simulation, and a real cataleptic subject would exhibit about the same appearance, and deceive all but the very expert.

In this stage the subjects retain the attitudes without any contraction. Nevertheless, if any pressure is applied to the muscles, nerves or tendons, paralysis will ensue, rapidly disappearing, however, under the influence of electricity, on awakening; for suggestion or antagonistic stimulation are seldom sufficient to restore the full vitality of the temporarily paralyzed muscles. These contractions, by giving cadaveric rigidity to the subject, permit of sensational experiments; such as placing the subject with his head on one chair, and his feet on another, while all his body remains stretched out in empty space. In this state, the body of the subject can be sat or trampled upon by persons of weight without its yielding in the slightest degree. The pitying sympathy of the

* The *sphygmograph* is an instrument, which, when applied over an artery traces on a piece of paper moved with clock-work a curve indicating the change of tension of the blood within. In sleep this tension is greatly reduced. The *cardiograph* records by a somewhat similar method, the beatings of the heart.

public is often aroused, and the operator implored to desist, all of which adds to the sensational character of the exhibition.

The following account shows the method pursued at the Salpêtrière, to produce some of the most curious symptoms of cataleptic hypnosis. The patient is seated near a table, on which a magnet has been placed, the left elbow rests on the arm of the chair, the fore-arm and hand vertically upraised, with thumb and index extended, while the other fingers remain half bent. On the right side, the fore-arm and hand are stretched on the table, and the magnet is placed under a linen cloth at a distance of about two inches. After a couple of minutes, the right index begins to tremble and rise up; on the left side, the extended fingers bend down and the hand remains limp for an instant. The right hand and fore-arm rise up and assume the primitive position of the left hand, which is now stretched out on the arm of the chair, with the waxen pliability that pertains to the cataleptic state.

It is an interesting study to divide the individual as it were in two; to throw one side into lethargy and the other into catalepsy; or else to endow the subject with emotions and attitudes that are in flagrant contradiction with each other.

To induce such a state of half-lethargy and half-catalepsy is extremely easy. First the patient is thrown into a lethargy, then one eyelid only is uplifted, and that side alone will enter the cataleptic phase of hypnotic sleep. As evidence of the fact, if the arms are raised up, one (on the lethargic side) will fall down again heavily, while the other (on the cataleptic side) remains up in the air.

The exhibition of different emotions is certainly the most interesting phenomenon of this phase. Whether obtained by colored balls, or medicinal substances in sealed tubes placed on the neck of the lethargic subject, who at once passes into the cataleptic state; or whether obtained by the abnormal positions the patient is placed in—which is the most usual manner—the result is the same, and presents a series of attitudes strikingly true in expression and often graceful.

Braid was the first to notice the constant harmony existing between the attitudes of the body and the expression of the face in the cataleptic subject. A series of hallucinations can be induced through the senses, particularly by the sight, and by the positions in which the subject's limbs are placed; but there is an absolute co-ordination in the subject's actions.

Although at first an inert, plastic mass of flesh and bones, a kind of corpse in which all mind seems absent, the cataleptic subject allows himself to be moulded at the will of the operator.

In a state of healthy wakefulness, we do not, indeed, differ very much from this automaton. We can detach ourselves, as it were, at our own will, and summon up within us whatever emotion we choose.

In the following passage from Dugald Stewart, the Edinburgh philosopher (1753-1828), the intimate connection between the expressions and the emotions is stated as a possible fact, now universally accepted in the scientific world.

“As every mental emotion produces a perceptible effect on the body, so in the same way when we throw into

our physiognomy a violent expression, accompanied by analogous gestures, we, in some degree, experience the emotion that corresponds with the artificial expression impressed on our features. Mr. Burke* assures us that he has often felt anger gradually rising within him, as he assumed the outward signs of this passion, and I do not doubt, that with most individuals, the same experiment would give the same result. It is related, that when the famous philosopher, Campanella, wanted to know what another person was thinking, he would mimic as closely as possible their attitude and expression of countenance, while at the same time he concentrated all his attention on the emotions he experienced."

These are *self-* or *auto-suggestions*, and we are thus led to define the word *suggestion*, which is being now so constantly used—and misused—in connection with hypnotic phenomena.

Suggestion is the implantation of the hypnotizer's will in his subject, an implantation which in the *somnambulistic* stage is made by word of mouth; and in the *cataleptic* stage by gesture or mimicry.

Thus, in the state of catalepsy, if the hands are opened and drawn close to the mouth, as when a kiss is wafted, the mouth smiles. If the arms are extended and half bent at the elbows, the countenance assumes an expression of astonishment. The slightest variation of movement is reflected in the emotions. If the fists are closed, the brow is contracted and the face expresses anger.

If a lively or sad tune is played, if amusing or de-

* Edmund Burke, the great British statesman and orator (1729-1797).

pressing pictures are shown, the subject, like a faithful mirror, at once reflects these impressions.

These reactions of gesture and physiognomy are sometimes met with in somnambulists or in waking subjects, but they never acquire the maximum of intensity manifested in the cataleptic reactions, as the latter are due to the complete transformation of the subject at this stage, into an absolute automaton.

The phenomena can be reproduced indefinitely; if a smile is produced, it can be seen to gradually fade away as the hand is moved further; and again to reappear and increase when it is once more brought near. Better still, a double expression can be imparted to the physiognomy: by approaching the left hand to the left side of the mouth, the left side of the physiognomy will smile; while, at the same time, by closing the right hand, the right eyebrow will frown.

By the partial electrization of the muscles of the face, there have been produced determinate emotions of the face that were associated with the different positions of the body. And according to the strength of the current, different degrees of the same emotion were obtained.

It has often been wondered what could be the state of mind of a cataleptic subject placed in an attitude of passion. The tragic expression of his physiognomy and the marble-like immobility of his body form a curious contrast. On one hand, he seems to see or hear nothing; while on the other, he represents the most intense passions. This curious problem is partly solved by studying the working of the respiratory organs of the subject during the experiments. The learned operator

caused the muscles expressing terror to contract, and strange as it may seem, although the most violent fear was depicted in the features and gestures of the subject, the breathing, after a sudden jerk, so to speak, regained its calm and cataleptic regularity. It was concluded that suggestion through the muscular sense in the cataleptic phase, is more superficial than mental suggestion in the somnambulistic state, which we shall study further on.

There is a still higher degree of automatism manifested in what is known as *imitation*, when the subject's gaze is *taken possession* of by the operator. For that purpose, the patient has only to be fixedly looked at, and his eyes will soon be unable to detach themselves from those of the operator. If the latter step back, the subject will rise and follow him, and will then copy all his movements. He can be made to laugh, whistle, sing, clap his hands or stamp his feet. The patient has become a mirror, and imitates with his right hand the movements of the operator's left hand as he stands facing him.

Just as with the appropriate movements, the cataleptic subject can be made to assume every imaginable attitude; either that expressive of ecstasy, prayer, melancholy, pain, disdain, anger or fear.

In this phase of hypnotism, ecstasy is the most graceful and artistic phenomenon. When last in the United States, Donato, a Belgian magnetizer now dead and for many years a master in the art of exhibiting the phenomena of hypnotism, carried out his performance in the following manner: He threw into a state of catalepsy several subjects, generally young and pretty women, in evening costume; a male subject brought—like a liv-

ing antithesis—an amusing element into the dainty scene before the public; the expression of this subject was a mixture of admiration and bewilderment. The women leaning forward in an attitude of rapt ecstasy, seemed to listen to some inner voices, or to some melodious and far-off sounds. Then the harmonious and veiled sound of a piano was heard, and the expressions became more and more idealized. The cataleptic subjects bent lower and lower, striving to seize and concentrate within themselves all the sonorous vibrations that charmed them.

If the sound became too loud or discordant, the subjects appeared to receive a shock and suffer deep disappointment. The faces expressed stupefaction and even positive pain. If the same soft melody was again resumed, the same expressions of rapturous bliss reappeared in the countenances. This was indeed a most charming performance, and the suspicion of fraud or simulation was removed when gazing upon the impossible attitudes assumed by the subjects and kept up for half an hour at a time.

As a matter of fact, one of the most common experiments with cataleptic subjects is to make them lean backwards or forwards with all the boldness and grace of perfect equilibrists, freeing themselves from ordinary mechanical laws. The curvature will, indeed, at times be so complete that the head will touch the floor and the body describe a regular arc.

When a female subject assumes an attitude of devotion, clasps her hands, turns her eyes upwards and lisps out a child-like prayer, she presents an admirably arti-



Heavenly Visions.

tic picture, and her features and expression seem worthy of being recorded on canvas.

Music is one of the best means of producing ecstasy; it can also be attained by making the patient gaze at a person in ecstasy or even look at a picture representing such a subject. Music will also induce the patient to step in time, dance, and waltz.

The same species of automatism is easily induced by calling up the recollection of some familiar object; suggestion, in that case, is due to unconscious memory. Thus, if a piece of soap is put into a cataleptic patient's hands, he will move it round in his hands as though he wished to wash them, and if any water is nigh, he will actually wash them. If an umbrella is offered, he will open it, and shiveringly shelter himself under it, as if he felt the approach of a cold shower. It is related that a famous college professor was suddenly seized while shaving himself, with an imperative desire to cut his throat, and could only resist the feeling by abandoning his occupation. We call this *auto-suggestion* with a vengeance.

The action may last a very long time. Patients have been seen washing their hands for two consecutive hours. We have seen a female subject put on her boots, lacing and unlacing them for an indefinite time; and, another time, while doing crochet-work, she would ceaselessly repeat the same stitch.

As already stated, by closing one of the eyes of the subject, the latter can, as it were, be divided into two. The hand that corresponds to the open eye stops, while the other continues its movement, even striving instinc-

tively to make up for the one that is, so to speak, crippled.

Absolutely conscious actions cannot be suggested to a patient in the cataleptic stage. To hand him a pen will not make him write; if, however, words are dictated out loud, the subject will write in an irregular hand-writing. The subject can also be transformed into a kind of a human phonograph, and be made to sing, scream, cough, sneeze, or speak different languages; repeating all with astonishing facility.

The above phenomena form exceptions to the laws of catalepsy, as laid down by Charcot, according to which the subject usually neither speaks nor hears. It belongs, indeed, rather more to the half-cataleptic and half-somnambulistic state, for it is generally obtained by placing the hand on the cranium, the forehead, or the nape of the neck of the subject. We shall come back to these manifestations in another chapter.

4. "SOMNAMBULISTIC."

The highest phase in hypnotic sleep (if we follow Dr. Luys' diagram and start from the deepest sleep or *hypolethargic state*) and that which approaches nearest to the waking state, is the somnambulistic. It has strong affinities with insanity, and can be experimentally created. The patients are subject to irresistible impulses, hallucinations and delirious conceptions. This phase is produced either by friction applied to the crown of the head during the cataleptic stage, or directly by magnetic passes on a wide-awake subject. The greatest number of patients are not susceptible to any other form of in-

duced sleep. It is, therefore, generally known among the non-scientific operators as the *real hypnotic sleep*, and is the form produced more frequently on the exhibition platform.

The difference between a subject in the waking stage or the same in the somnambulistic stage is hardly perceptible. The countenance presents the same aspect, the eyes are generally open; sometimes, however, they may be closed or half open; the voice alone differs in sound in induced somnambulism. This is the phase which it is easiest to feign, as it hardly affects the movements of the heart or the circulation of the blood. This does not, however, imply that it does not really exist, but only, that it is very difficult to identify with absolute certainty.

This is the period of *suggestion*. As the induced somnambulistic sleep brings on momentary insanity, the subject's brain becomes a pliable wax ready to see, believe, or execute whatever is commanded. Let us see how the School of the Salpêtrière understand and analyze the phenomena of somnambulism.

Especially, the question of memory has powerfully interested the operators. In this phase there is considerable over-sensibility of the nervous centres. To demonstrate this, Dr. Richet invented the following experiment: "I sent V—— to sleep, I recited some verses to her, and then I awoke her. She remembered nothing. I again sent her to sleep, and she remembered perfectly the verses I recited. I awoke her, and she had again forgotten everything."

There is no doubt whatever that the memory of the hypnotized subject is greater than in the waking state,

and its exaltation sometimes seems to be imbued with a miraculous lucidity. It has been proved that somnambulists—the real, not the fraudulent ones—describe with an extraordinary amount of detail the places they have formerly seen, the things they have witnessed. M——, who will sing the air of the second act of the opera *L'Africaine* in her sleep, is incapable of remembering a single note of it when she is awake. Dr. Beaunis had a patient who, in the hypnotic condition, perfectly remembered all he had eaten, and yet was unable to do so when awake. Another subject could be induced to remember the whole of his meals of the last week, while in his normal state he could barely recall them more than two or three days back. Similar examples could be multiplied *ad infinitum*.

Man's memory is therefore much more faithful than is generally supposed; it is only necessary, in order to revive it, to find the stimulants appropriate to the brain, either hypnotism or special drugs. Opium-smokers, and hasheesh-eaters pretend that by these means they excite their memory. Don't let us forget, however, that to maintain the equilibrium of our organism, it is not advisable to over-excite any particular part of the brain; and that such a result is only obtained at the expense of the remainder.

Dreams often conjure up before us forgotten people. On awakening, the dream has already become hazy. It is the same with the actions or conversations of the somnambulist (in the induced state, not the spontaneous); sometimes even there is a complete loss of memory, as regards the deeds accomplished. But a command to

remember issued peremptorily by the operator, generally brings back the memory. The same result is obtained when the subject is awakened in the middle of an action which leaves traces. For instance, the operator smokes an imaginary cigar by the side of the sleeping patient, he suddenly tells the latter that the burning cigar-ashes have fallen on her neckhandkerchief and have set fire to it. The patient at once rises and throws the handkerchief into water; he is then awakened and remembers the whole incident. The same thing occurs with normal sleep; to dream of a danger, for instance, will make the sleeper take precautions to save himself. If he is awakened while taking one of these measures, the whole dream remains imprinted on his mind. It has been justly stated that dreams, continued in the waking state, are a kind of transitory insanity; hypnotism is now admitted to be a real, experimental insanity, and, in the somnambulistic stage, it permits the creation of hallucinations, which are manifested by the play of the physiognomy.

Thus, if a crime accompanied by the most horrible details is related before a subject, a feeling of repulsion, a desire to hear no more, is at once most graphically represented. The memory is dimmed, not destroyed; sometimes, indeed, it is sharpened.

Whatever expedients may be resorted to, in order to preserve, after hypnosis, the memory of the actions performed in that state—perhaps even by reason of these very expedients, it is certain that the memory is affected, but only superficially, for a new sleep will completely restore the memory of things the subject had seemed to lose when awake. We shall refer to the importance of

this fact when explaining the possible consequences of criminal suggestion, as far as the "suggestor"—the real criminal—is concerned.

Let us note here a most important fact, but little known even by professional hypnotists. The *somnambulist* is not an automaton, as was the case with the *cataleptic*; he is an individual with his own character, his likes, and dislikes. This is the reason why the somnambulistic existence is often called the *second condition*, in opposition to the waking state.

The subjects remain as in their usual life, each with his, or her, own individuality and peculiarities; one will remain timid while another will be turbulent.

The influence of the voice and of music is considerable, but the tone of the sound seems to play the principal part. Words gravely pronounced, even if devoid of sense, will affect certain subjects as deeply as a tragic story. There has in truth been a great deal of exaggeration as to the change created by spontaneous or induced somnambulism in the temper and mental aptitudes of the subjects; the activity for instance does not seem to be modified, and presence of mind is retained.

The will power is not even modified, and the implantation of another's will does not take place, as has been repeatedly asserted, and they teach in the Medical and Law Schools of Nancy; this, we shall demonstrate when treating at length the question of *suggestion*. As a rule, the somnambulist opposes a certain resistance to suggestion, especially at first; and against certain kinds of suggestion, he rebels absolutely. Thus a subject stubbornly refused to accept a cassock and be transformed into a

priest. Another patient, to whom the amputation of an arm was suggested, screamed with pain at the sight of blood from a scratch, but almost at the same moment, understood that it was a fiction and laughed in the midst of her tears. Facts of this kind have often erroneously led to the idea that the patient was dissembling. In many cases, however, it was positively proved that there was no dissembling; thus, the patient just mentioned was undoubtedly under an hallucination; she really had before her a tangible image, but her reasoning power was not completely paralyzed, and she still had strength enough to resist the false impression suggested to her.

Here are some other striking examples of hallucination.

Every one of the senses is liable to be affected. The subjects are capable of seeing, hearing, tasting, smelling and touching imaginary objects, and submit to their influences. A subject will fall into hypnotic sleep at the sudden sight of an imaginary lamp; he will exhibit horror and disgust at a deformity; take pleasure in listening to a well-known and loved voice; will vomit at the idea of a nauseating drug, and show surprise and vexation at any imaginary exhibition of awkwardness; all this without uttering a word or there being the slightest appearance of reality. The subject may also believe himself to be made of glass, and forbid that any one should touch him; or he may think he is paralyzed because he has been told so. You see how strikingly true is the Charcot theory, that hypnotism in the somnambulistic stage is but temporary insanity.

The following are a few examples of delirium created at will, noted down by Dr. Richet.

"Under the influence of suggestion, Madame A., the respectable mother of a family, experiences the following metamorphoses: *As a peasant woman.* (*She rubs her eyes and stretches herself.*) "What o'clock is it? Four o'clock in the morning!" (*She walks about as if she were dragging her wooden shoes.*) "Well, I must get up, and go to the cow-house. Come up! la Rousse! Turn round!" (*She goes through the gestures of milking a cow.*) *As an actress.* (*Her face assumes a smiling aspect instead of the hard and tired look it just had.*) *As a priest.* (*She fancies she is the Archbishop of Paris, and her face wears a very solemn expression.*) (*Aside.*) I must really prepare my mandamus! (*She leans her head on her hand and reflects.*) (*Aloud.*) "Ah! it is you, Monsieur le Grand Vicaire, what do you want? I do not wish to be disturbed. Yes, to-day is the 1st of January and we must go to the cathedral. A very reverent congregation it seems to be, Monsieur le Grand Vicaire. The people are truly religious in their bearing, whatever may be said. Ah! a child! let him draw near, that I may give him my blessing. Very good, my child." (*She holds out an imaginary ring for him to kiss. During the whole of this scene, she moves her right hand, bestowing benedictions, right and left.*)

The hallucinations may affect only one side of the body instead of both, like those we have just related; one eye, one arm, one nostril only, will see, touch, and smell the imaginary objects. It is for instance suggested to a female patient that she shall see with her right eye a por-



Cataleptic Stage. Peculiar Facial Expression.

trait on a blank piece of cardboard. On awaking she sees with the other eye a blank card only; but with the right one, she sees the portrait. This experiment may be made more complicated by giving to each of the two symmetrical organs, to each eye or each ear, an hallucination of a contrary nature. The patient being in the somnambulistic phase is told through her right ear, that it is very fine weather, while another person at the same time whispers in the left ear, that it is raining. The subject will smile on the right side of her face, while she exhibits her displeasure on the left side, by a drooping of that corner of the lips. Then, to call into play both sight and hearing, the operator will describe some merry celebration in the right ear, while in the left another person imitates the sound of a dog barking. The amused expression on the right side is in strong contrast with the alarm shown on the left side. It would thus seem that each lobe of the brain works in an isolated manner.

Hallucination is an *image* that grows into the thing itself; it is called then *exteriorized*. Now, in a state of healthy wakefulness, any of us is able, more or less, to conjure up the image of an absent friend. The intensity and facility of evoking, of seeing, as it were, absent persons or things, would, according to Dr. Liébeault, indicate a person easily hypnotizable. If we think of any particular thing, we see and feel sensations connected with that idea. If this faculty is thus exaggerated to the point that the mere name of the object conjures up the sight of it, it explains the hallucinations of hypnotized subjects. If these *exteriorized* sensations are often re-

peated, even in the waking condition, they become a permanent obsession, a positive form of insanity. The same ideas will reappear directly hypnotism is used; and it is sufficient to recall some fact of normal life, for the hypnotized subject to live over again the corresponding period and communicate it to her surroundings.

Visual hallucinations are numberless. Here is one cited by Dr. Charcot: "A portrait is suggested to a subject, as existing on a blank card, which is then mixed with a dozen others—to all appearance similar cards. The subject, being awakened, is requested to look over the packet, and does so without knowing the reason of the request; but, when he perceives the card on which the portrait was suggested, he at once recognizes the imaginary portrait. It is probable that some insignificant mark has, owing to the abnormal acuity of his eyesight when in the somnambulistic stage, fixed the image in the subject's brain.

Attempts have been made to establish well-defined differences between hypnotic and natural sleep, oblivious of the fact that in nature nothing is absolute, and that very distinct demarcations do not exist. Magnetizers allege that by passes, they transform the natural state into an induced state; but the fact is that hypnotizable individuals in a natural sleep, can easily be induced to somnambulism. It frequently happens that when half awake, we hold a conversation of which we retain little recollection when completely roused. Nevertheless lunatics or those on the verge of lunacy often believe in their dreams, *exteriorize* them, i. e., see them before them as realities, and thus follow the impulses that their

sensations create. Natural somnambulism has till now offered more surprises than induced somnambulism. Perhaps the connecting links and the stages that lead from one to the other may eventually be discovered.

The resemblance between hypnotism and natural somnambulism is so great that the name somnambulism is used for both. Hypnotism is often called artificial somnambulism, and the other spontaneous somnambulism. All sorts of movements are made in spontaneous somnambulism. Three stages are generally distinguished—(1) that in which the sleeper speaks; (2) that in which he makes all sorts of movements, but does not leave his bed; (3) that in which he gets up, walks about, and performs the most complicated actions. The first two stages are found in persons of sanguine temperament who enjoy very fair general health. It is not yet finally decided whether the third state appears only under conditions of disturbed health. Many believe that it is observed when there is no constitutional weakness, especially in children. If it is desirable to show these states, it can be done with the healthiest subjects. As regards these movements in sleep, the experience of most physicians is, that the persons who are most restless in natural sleep, who talk, or throw themselves about, are the most inclined to lively movements in the hypnotic state. In any case, the movements are also displayed in sleep. So, we ought to call the last states sleep, especially the two first stages of somnambulism; for, in fact, the movements of the subjects in those states do not offer a fundamental contrast to sleep, especially when they are caused by suggested delusions of sense.

The fact that a hypnotized subject can carry on a conversation is not enough to mark off hypnosis from sleep, for many persons answer questions and obey commands in sleep. Certain persons easily answer in sleep when some one they know well speaks to them. A child will speak to its mother, and bedfellows to one another. A conversation is easily carried on when the waking person follows the sleeper's chain of thought and insinuates himself, so to speak, into his consciousness. A woman dreamed aloud of a person (X), and when her husband talked to her as if he were X, he was answered, but when he spoke in his own person he was ignored.

Finally, there are many persons who can hardly be induced to move in the lightest stage of hypnotism, though they can be made to dream anything.

What has been said must make it clear that hypnosis by no means needs to be sharply distinguished from sleep, in spite of its apparent differences. In fact, the dividing line between sleep and hypnosis is merely a difference of quantity or importance in the movements. Movements in hypnotic somnambulism are easily induced; in natural somnambulism they are duller, slower, and rarer.

CHAPTER II.

THE INTERMEDIATE STAGE OR "FASCINATION" PERIOD.

The intermediate stage marked on Dr. Luys' diagram as the state of *fascination* is manifested as follows:

A sudden glance cast unexpectedly upon a highly sensitive subject will cause him to start forward towards the operator, and *take possession* of his glance: this is one of the characteristics of spontaneous catalepsy. A bright light, or a glittering object, fixedly looked at, will bring about the same result. In this state the subject's limbs will retain any position the operator chooses to put them in.

It begins to be more generally understood that hypnotism will affect not only nervous persons, but also sound, healthy individuals—or those that are considered such. Dr. Richet writes that "nobody is absolutely refractory to magnetism." Dr. Brémaud, a surgeon in the French Navy, has obtained in men supposed to be perfectly healthy, a new condition which he calls *fascination*. The inventor of this term, in its present application, considers this is hypnotism in its mildest form, which, after repeated experiments, might grow in intensity and become catalepsy.

The subject *fascinated* by Dr. Brémaud—fascination being induced by the contemplation of a bright spot—falls into a state of stupor. He follows the operator and servilely imitates his movements, gestures and words; he

obeys suggestions, and a stimulation of the nerves induces contraction, but the cataleptic pliability does not exist.

Long before Dr. Brémaud, a professional, or platform, magnetizer thought he had discovered this *fascination* and even named it after himself. He operated in the following manner. After having, at the beginning of one



BEWILDERED FASCINATION.

of his *seances*—which at that time attracted not only “all Paris,” but people from every part of the world—operated on his own subjects, and thereby impressed the imagination of his audience, he would inquire if any of the spectators were willing to submit themselves to an experiment. Several would come forward. He would choose one, and make him lean on his hands, so as to weaken the muscular power. Both hypnotizer and pa-

tient remained standing on the platform, in front of an audience now thoroughly interested in this struggle between one who strove to master and one who would not submit. The patient's enervation under the influence of the numberless eyes fixed on him, soon reached its climax. The fascinator would then suddenly call out, "Look at me!" upon which the would-be subject drew himself up and gazed intently into the operator's eyes. The latter then looked down on his hapless victim, with round, glaring eyes, and, in the majority of cases, succeeded in fascinating the subject. No doubt some individuals would feign to succumb, thereby deceiving the public, if not the operator; and when they quitted the *seance* would not fail to declare he was a charlatan. But it would be unjust to infer general fraud from some particular deceiving exceptions.

Fascination thus made its way. By the constant sight of gigantic advertisements, the attention of scientific men was aroused; they witnessed the performance, were at first incredulous, then doubted, and finally took up the subject and studied it; striving to make this curious process scientific and useful as a curative means. It no longer remained the object of mere curiosity, but grew into a therapeutic method that doctors availed themselves of to alleviate suffering.

Then Dr. Luys conceived a special mode of fascination by the contemplation of a revolving mirror.

The patient thus *captivated* has reached that point where he is possessed of the credulity necessary to accept suggestions. Sometimes it is not possible to induce a sleep deep enough to be able to speak to the subject

without awaking him; he remains more generally in a state of somnolence and repose. It would seem as if the restfulness of the optic apparatus was extended to the brain, conveying to it a feeling of pleasant relaxation.

"To produce this intermediate stage, or, in fact, any stage of the hypnotic sleep, no method is infallible," writes Dr. de Jong, of the Hague, Holland. "With each one I have successfully induced hypnosis, but each one has from time to time utterly failed. Sometimes when I have been disappointed by one method, another one has easily proved successful with the same patient. From which I deduce that we must carefully seek anew the method that will fit each individual and not decide too quickly that any subject is absolutely refractory; unless indeed every known method has proved ineffectual. Frequently, these apparently refractory individuals progress from a state of natural sleep into a hypnotic state."

Verbal suggestion, pressure on the eye-globes, magnetic passes and other processes already described, may in turn be applied with more or less success. Whatever method is followed, a certain moment is reached when the eyes remain closed, and the arms fall down flaccid. In this state the subject hears the hypnotizer. Even if the patient remains motionless, with a countenance as inert as that of a mask, he is conscious and can hear and sometimes see through his half-closed lids. On awaking it will generally be found that he has retained a recollection of what has happened. And he awakes without being touched, without any blowing on the eyelids, simply by using the gently repeated words "Now awake."

In this vague, ill-defined state of lesser or minor hyp-

notism—as it is called by Dr. Luys—the subject is ready for any suggestion. If the operator places the subject's arm in a certain position, and affirms that the patient cannot put it down, he will passively retain the imposed attitude. An action communicated to a limb will be automatically continued until the operator directs its stoppage. The state is one of absolute insensibility, and pins can be run through the skin without causing the patient the slightest pain. Some exceptional subjects do retain sensibility, but this also can be annulled by suggestion. Frictions on the crown of the head, raising or shutting down the eyelids, do not modify these phenomena as in the case of lethargy or catalepsy.

According to the subjects, suggestibility varies. Some of them only have and keep their eyes closed, with or without numbness; others have besides this a limpness of the limbs, with inertia or inaptitude for any spontaneous action; others again maintain the attitudes or automatic movements that have been imposed on them.

Obedience, unreasoned and absolute, is thus obtained, and insensibility, illusions and hallucinations are induced: it is a regular ascension from the state of catalepsy, the summit of which is somnambulism. On the average, one subject in every five or six hypnotized, attains this peculiar condition in its complete form.

CHAPTER III.

THE THEORY OF HYPNOTISM

I. SIMILARITY BETWEEN SYMPTOMS OF HYPNOTISM AND CERTAIN FORMS OF INSANITY.

The 19th century, especially during the second half, has devoted a great deal of attention to the study of insanity in all its degrees and manifestations. The numerous works of value published, from the immortal Esquirol to Charcot, Luys, Lombroso, and many others all over the civilized world, on the nervous system and mental alienation, have made the way clearer toward the solution of this vital question: the diagnosis and cure of brain-troubles. In spite of the infinite variety and, sometimes, antagonism of these researches and discoveries, the unanimity of the experts seem to agree upon this point—the only one that interests us at present—that, by the side of certain well-characterized and determined disorders, there exist some vague, undefined symptoms, badly equilibrated nervous conditions, kinds of latent folly, almost unknown cerebral disorders. The domain of mental disease has by this constant study taken up a very predominant position, too much so indeed, for there is a tendency now to see insanity everywhere.

Insanity is certainly the most accentuated form of cerebral degeneracy. Many other deviations of the brain exist, however, such as hysteria, epilepsy, and all the va-

riations of these diseases. Hysteria which inspires the ordinary public with such a false and terrifying notion requires a short but reassuring explanation.

It is a deviation of the nerve-currents, that renders the organism capable of simulating a disease, without there being any real lesion of the brain or nervous centres. A doctor, for instance, will believe he is treating a patient male or female, for consumption; he will find all the irrefutable signs of that disease; he will order an appropriate treatment, and when, on the following day, he returns to see his patient, he will find that all appearance of the malady has vanished. Another time, a patient will suddenly become dumb, without either having suffered from convulsions in childhood, or nerve troubles since then; the doctor, thinking his condition proceeds from paralysis of the larynx, applies electricity to the vocal chords. Nothing, however, seems of any avail, till one day, a violent emotion or some unknown cause brings things back to a normal condition, and the patient recovers his voice. Again another time a doctor has a patient brought to him who for several months has had a limb completely paralyzed, without however showing signs of the muscular atrophy which generally accompanies, and is fatal in, any organic lesion. The physician inquires about the nervous antecedents, and finds there are none; he prescribes a particular diet, strengthening massage, enforced exercise, etc. Everything fails; a few months later he hears that his patient, weary of trying different treatments, has left off all remedies, and is completely cured.

The list of similar cases is limitless.

If diseases are thus unconsciously simulated in an organism that seems powerless to resist, it must be the same in the case of the thinking faculties of the living being. Many patients who are considered lunatics, are only suffering from hysteria localized in one particular part of the brain; thence those momentary irresistible impulses of theft or even murder, of manias, of aimless wanderings, etc., followed by reaction periods of perfect sanity.

A man still young, dressed in rags, has been known to come to a hospital in a state of utter despair and destitution. He had been making a long journey on foot, of which he remembered nothing, not even why or how he started. The patient said, "I could not help starting off the moment the inclination seized me; and I left home, family, business, and started off straight before me, walking at a quick pace, covering incredible distances a day, on foot, till I woke up, a few hours ago, in a vagrant's rags and dirt." This form of delirium is much more frequent than is generally supposed; although the papers mention such cases almost daily, and the police of our large cities know of disappearances by the hundreds, that can be explained in no other way.

Judgment and intelligence have gone astray, but there are no hallucinations properly speaking, at least not at first.

One fine day a certain idea will take hold of a patient. He may, for instance, suddenly be struck by the idea of the immorality of the world and will consider himself bound to reform and civilize it. Another patient, full of the conviction that he can lessen the labors of his con-

temporaries, fancies he has discovered perpetual motion. Editors of scientific and technical publications receive frequent visits from just such individuals, unhappy inventors, perfectly conscious of all the usual circumstances of life, and even half conscious of their own condition: "I should not advise you," said one of them, to a well-known publisher of our acquaintance, "to call my invention perpetual motion, because every one would scoff at my presumption; call it the automotor-motor."

The mad impulse that launches the subject forth, is not at once accepted by him; the subject will struggle, the equilibrium of the intellectual faculties is not immediately overthrown. At first but a mere passing thought, the idea becomes recurrent, till at last it develops into a fixed and unavoidable obsession. This constitutes insanity, and yet Dr. Leuret adds, that the difference between this state and a normal one is often null.

The same physician relates the case of a man of forty, who from his early youth was impressed with the vicious state of society and determined to reform it. For this purpose he traveled, studied all the different government constitutions and human principles of morality; he learned several languages, wrote in the papers, and published pamphlets in order to propagate his system, displaying in all this a remarkable degree of intelligence. In this manner he spent his whole fortune; then falling into a state of abject poverty, he lived on anything he could pick up, digging up carrots and beetroots, or begging in the streets, till at last, always *misunderstood*, he was taken up and sent to an insane asylum. His insan-

ity could no longer be doubted, but it had gradually and imperceptibly grown upon him.

Other patients have the delirium of persecutions, and fancy themselves the victims of the whole human race that declines to recognize their merit. Others, again, fancy themselves some great personage, some missing king, poor little Louis XVII., of France, for instance, etc. Whatever the outward manifestations may be, all classes of society furnish their contingent to this group of insane.

Patients may, however, be classed as follows: the delirious, the hallucinated, the demented, the impulsive, and the captivated. Hysteria also contributes a certain number of insanity victims, or more properly, hysteria is often accompanied by mental disorder, although it ought to be carefully distinguished from it.

Hysteria is a malady that assumes every kind of form, and completely warps all judgment, will, or intelligence.

The world is full of hysterical and nervously disordered individuals, who constitute the class of subjects most liable to be affected by magnetism or hypnotism; making it, as it were, one vast hospital.

"The hysterical woman"—Dr. Dieulafoy writes—"is exaggerated in all things; willingly does she make an exhibition of herself, and is possessed with the need of attracting attention; in order to render herself interesting, she will imagine all kinds of *simulations*, and be capable of the most repugnant actions. Hysterical women are often malicious, perverse, deceitful, and liars; certain of them will *lie* with incredible tenacity and audacity; they sow discord wherever they go; they know

not what to invent to *attract the attention* of others; they will even feign to commit suicide, and throw their family into a state of despair by threatening to destroy themselves, when they have absolutely no wish nor intention of so doing; they accuse themselves of actions they have never committed, and falsely accuse others of robbery or murder. Most hysterical subjects have hallucinations during the convulsive attack; with some these hallucinations exist without the attacks; thus a woman may be calmly and quietly reading or working and suddenly rise abruptly, and scream, imagining she sees fantastic animals on the floor or wall."

This is certainly a very unflattering description, which fortunately is only true in rare cases; but what is certainly true, in number of cases, is that every hysterical subject craves for a pedestal, whether it be a velvet cushion, the foot-lights of a theatre, or even the prisoner's dock.

Hysteria does not exclusively affect women, as it was so long believed to be the case; the stronger sex—to make use of a received term—is by no means free from it, and furnishes very many examples of this fantastic and incomprehensible Proteus. It is necessary to dispel this error, as well as those that exist about the nature of this disease.

Epilepsy is also a nervous disorder that reacts upon the intelligence, and like hysteria furnishes a large number of hypnotizable subjects. There are two forms of epilepsy, the *greater* and the *lesser*. The *aura* is the medical name given to a series of phenomena which are

the forerunners of the first state; it is a sensation as of a current of air either cold or hot, or a violent pain starting from the foot or hand or any other part of the body and rising up to the head; sometimes there is a congested and inflammatory attack of these parts, at other times a sudden functional disorder is manifested, such as vomiting, palpitation, lancinating pains in the chest, constriction of the throat, an irresistible impulse to run or turn round and round, hallucinations (flashes of light before the eyes or sounds of whistling resounding in the ears). The *aura* lasts a few seconds, or a few minutes, and sometimes in itself constitutes the whole attack. This latter, however, when exhibited in full force, suddenly seizes the patient, who after uttering a scream falls to the ground. Convulsions, froth at the mouth, precede the awaking, after which the patient gradually recovers consciousness, and remains with nothing but a sensation of intense lassitude and what might be called "a stupid feeling all over."

Simple dizziness, with momentary wavering of the mind, constitutes the lesser epilepsy. The subject's conversation is suspended for two or three seconds, he goes through the motion of chewing, his eyes are fixed and dull, then suddenly he returns to his normal condition and the fit is over.

Epilepsy, although often hereditary, is sometimes the consequence of poisoning (mercury or lead-poisoning) or of some functional disorder of the kidneys, or it may be produced by worms in the intestine; in which cases the malady will disappear when the cause is removed.

Hysteria and epilepsy are often combined, the result being a morbid affection that partakes of the characteristics of both.

There exist also natural somnambulists who, like the epileptic at the moment of impulsion, *go as unerringly to their goal as a stone falls to the ground*—and accomplish actions of which they do not retain the faintest recollection. But of that later.

Notwithstanding all this, degeneracy on certain points does not exclude genius, sometimes indeed it would seem as if the cerebral over-activity accumulated in direct ratio of its unequal repartition. Aristotle said that there were no superior minds without a grain of folly. Caesar, Mahomet, Peter the Great, Napoleon I., were all epileptic. Socrates had hallucinations, Pascal suffered from obsession, Rousseau from melancholy, Mozart from an acute nervous malady, and these examples could be run into the hundreds.

Now, the point that interests us particularly, is that these disorders may be compared with those due either to spontaneous hypnosis, lethargy, catalepsy or natural somnambulism. Some authors attribute the conditions to polarity, assimilating the human body, animals, and objects to real magnets. However that may be, these phenomena are well known, and the absent-minded fits accompanied by an ecstatic condition to which Socrates was liable, are particularly curious.

“In one instance,” Pluto says in his *Symposium*, “during the siege of Potidaea, he was seen, early in the morning, standing in one place rapt in meditation; and as he

seemed not to be able to unravel the subject of his thoughts, he still continued to stand as if inquiring and discussing within himself, and when noon came, the soldiers observed and said to one another—"Socrates has been standing there thinking, ever since the morning! At last some Ionians came to the spot, and having supped, as it was summer, bringing their blankets, they lay down to sleep in the cool; they observed that Socrates continued to stand there the whole night until morning, and that, when the sun rose, he saluted it with a prayer and departed.'"

Saint Augustine in his *De Civitate Dei* mentions a priest at Calama who could, at his own will, fall into catalepsy. Cardan, a famous physician and scholar of the 17th century, says the same of himself.

These disorders do not exist only in hysterical subjects, but are also found in individuals to all appearance the least nervously affected.

2. THE INFLUENCE OF IMAGINATION.

It is believed by many among the most trustworthy, scientific experts that imagination can explain most, if not all, of the phenomena produced by hypnotism. We shall see, further on, the part it plays in the cures effected by hypnotism, when used as a curative agent. Dr. Liébeault, the originator of the Nancy School, did well to take as the epigraph of his book, "*Sleep and analogous States*," Montaigne's saying: "The human mind is a

great worker of miracles," for imagination is capable of great things, more especially when its action is increased by the *training* and the *imitative* instinct of the subject, evoked by the phenomena produced before him.

The peculiar combination of imagination with a possible power in the operator is well described by Dr. de Courmelles, in the following narrative:

"Some time ago, a magnetizer was performing at Monsieur X——'s. I happened to be present, and as he asked for some volunteer subjects, I offered to let him experiment on me. I noticed that when he placed his hand between my shoulders—which he said was necessary in order to act upon the cerebellum*—he leant heavily, either purposely or involuntarily, thereby causing me considerable fatigue. The subject, if at all a nervous one, would be intimidated at finding himself on a stage under the concentrated gaze of a number of spectators, and, enervated by the experiments he had already witnessed, would be seized by a vague sensation of fear. There is but a step from this state to one of positive terror, heightened by his own imagination and the physical fatigue he is undergoing, as the magnetizer still leans heavily upon him. When the operator has ascertained that the subject has reached this condition—but not before—he operates at a distance upon him. In my case, as he failed to produce any effect by applying his hand on my shoulders, the magnetizer tried to make me kneel down. For this purpose he manipulated the lumbar muscles, or loins, and those of the calf of the legs, but he only pro-

* The back part of the brain.

duced a sensation of fatigue, similar to that felt after a long walk; and I actually laughed at his want of power." And Dr. de Courmelly adds: "The result is the same with forty per cent. of the subjects." Is there therefore



FORCED TO KNEEL.

any real magnetic power (so-called), or is it imagination, aided by the surroundings and the preliminary announcement of the expected results, which is the sole agent? Or do both these causes act together? These questions remain still unanswered satisfactorily, but the action due to imagination is an undeniable fact. We meet with fear and terror in animals as well as in

man, yet they are nothing but the effect of imagination, although their consequences are sometimes terrible, as witnessed by the following examples.

Some persons have, under sudden and excessive fear, seen their hair turn white; sometimes only half the hair has changed, while the other half has retained its normal color.

Boerhaave relates that a man condemned to death was handed over to him; that he had had his eyes bound, and had gone through the pretence of opening his veins. Taps of water were then turned on, simulating streams

of blood pouring into metal basins. When the bandage was taken off the man's eyes, he was dead.

An usher in an English school, who was hated by the boys, was seized by them and strapped down. His eyes were bound, and his head was placed in a kind of frame; they then dropped on the unhappy man's neck, not the hatchet that had been prepared and which he had seen, but a damp cloth. When released from this improvised guillotine, the poor creature was found to have died from the effects of his imagination.

Surgeons are well aware that patients may die during, or even before, an operation, not only from the physical condition of the affected part, but simply from a mental emotion, from a violent shock to the nervous system. In such cases the nervous centres perform their functions so feebly that chloroforming is sufficient to stop the respiration and the action of the heart. Whenever Porta* saw a patient die while he was operating on him, he would disdainfully throw his instruments on the floor and say to the dead man in a tone of reproach: "You coward, you died of fright!"

There is a certain kind of fear that is never got rid of, and is, as it were, automatic. For instance, James the First could never help trembling at the sight of a naked sword, owing to his mother, Mary Stuart, having, while *enciente*, seen her favorite Rizzio assassinated under her eyes.

Let us relate now how imagination can, under certain

*Giambattista della Porta, famous surgeon and professor in the University of Pavla (Italy) (1543-1615).

conditions, magnify sensations out of all real proportions, and give rise to intense and prolonged terror.

It is often impossible to have any clear perceptions at night, when things assume undecided shapes, when sounds become either intensified or strangely muffled. Imagination then becomes more active, and falls a prey to a thousand trifling incidents, to which it lends an exaggerated importance. Unable in this condition to correct the impressions by sight or senses, danger seems to fill the whole atmosphere, to re-echo in the ears, to rustle round the body; and fear is soon changed into terror. The hallucinated sight fancies it perceives in the gloom fantastic and gigantic enemies; nay more, it does really see them, feels their approach, their touch almost, and the individual, haggard and wildly terrified, becomes powerless and cataleptic, and perchance may die of sheer terror!

Let us imagine two students, for instance, who have determined that they will see a ghost, said to haunt a certain deserted house. They are both young and full of the spirit of adventure. They start off one evening for the haunted mansion, determined to clear up the mystery; till eleven they play cards; one of them, Ivan, incredulous and tired, quietly goes off into a heavy sleep. His companion, Dimitri, now left alone, as it were, begins thinking about the story, and the ghost that is to appear at twelve o'clock. The clock strikes half-past eleven. Dimitri tries in vain to awake his friend, the lamp grows dim, and finally goes out. He feels the terrible solitude and shakes Ivan, but fails to rouse him; suddenly a pale ray of the moon lights up his compan-

ion's face; then Dimitri, terrified, has no doubt; it is no longer Ivan he sees before him, but the ghost!

Of course, hypnotism plays no part in such phenomena; but it does present effects exactly similar, and the identical hallucinations, and physical phenomena. Here we are in presence of two initiative causes, of a like nature, so closely related that they at last merge into one, that is—imagination. The writer who creates imaginary personages, the painter who puts his dreams on canvas, the sculptor who carves and endows the marble with life, all work by imagination and *exteriorize their sensations*; yet are we, on that account, to consider them as hypnotized, insane, or hallucinated beings? Such an hypothesis would be too absurd.

Cures effected by hypnotism are certainly due to the imagination, just as disease is brought on by it. Invalids are recommended not to be *nervous* about themselves, which is a similar line of thought. Let us show how matters are generally conducted in order to effect a cure solely by means of over-excited imagination.

First, the new, infallible method is talked about to the patient, and described as a Godsend panacea; then a biography and a most flattered portrait of the great man who puts it into practice are given. The invalid has probably tried in vain every remedy; often, indeed, he suffers only from imaginary illnesses. The marvellous results of the new cure-all system are constantly repeated before the patient, and he is given newspapers full of descriptions of the wonderful cures effected. The patient's imagination is thus excited, and at last he himself pro-

poses to go and see one of the high priests of the new science. He is then ready for the experiment.

If the patient is rich he goes to a handsome house, and up a flight of ornamental steps. A liveried servant opens the door, and he enters a superb hall; then a still finer drawing-room, into which he is ushered. Here he anxiously awaits his turn, thinking over all he will say and how he will be received. There are so many other patients in the room that he feels sure it will be at least three or four hours before he is admitted. Everyone speaks in a low tone, and the word *cure* is constantly re-echoed. The table is littered with reviews and papers filled with the praises of the new medical man. The patient's imagination is excited, he feels more and more certain he will be cured. The enervating sensation attendant on expectation, and the deep silence, aggravate his nervousness. Ah, now at last it is really his turn; and he goes into the doctor's study.

A solemn-looking man, with a gold-rimmed double eye-glass stuck on his nose, and a prematurely bald head—or else very long hair—receives him. The patient, trembling with emotion, states his case. His eyes wander restlessly over the furniture, the bookshelves that cover the walls, the pictures, etc., all gifts of grateful patients. A few brief questions fall from the practitioner's lips; oracles could not be uttered with more solemnity! At last the patient leaves, sometimes, but not always, cured.

If he is a poor man the proceedings are different—in form but not in results. The patient in this case goes as an out-door patient to a hospital. He finds when he reaches the gates that a good many unfortunates are al-

ready waiting for admittance. After some time they are allowed into the consulting-room, which is divided into two compartments, and furnished in the simplest manner, with wooden benches and chairs, a tiny couch, and a a plainly stuffed armchair; in one corner there is a small table with the hospital record-book and a few magazines.

Here everyone chats, many of the patients having met before; they talk over their symptoms, and relate to one another the different cures that have been made. One man gives vent to a doubt; an enthusiast answers him, the discussion becomes general, and imagination sets to work, either *for* or *against*. Everybody speaks so well of the doctor, he is said to be so clever, so learned, so kind! a little abrupt perhaps, but such a good heart! The surroundings, although different, exercise nevertheless the same influences as in the case of the rich patient.

The same kind of thing takes place inside the hospital. First the patient must obtain—after many weary hours of waiting—an admission ticket to one of the wards. A stern, rough-mannered, middle-aged doctor, his head covered by a skull-cap, enters a small study, in which the patients are to be admitted one after the other. * He is attended by a young man, also with a skull-cap on his head, and a white apron with the traditional pin-cushion fastened to the apron; this is the resident house-surgeon. After him come four or five young men with white aprons, but without caps; these are the medical students attached to the hospital. After them, other young men with hats on their heads come in; these are ordinary

* This is an exact description of ways and methods in a Paris city hospital.

medical students who one day follow one course of demonstrations, and the next day follow another; their number is proportionate to the celebrity of the Great Man. At the end of a few minutes, the patients who have been anxiously awaiting huddled together, are ushered in, one at a time. They are often a little abashed for they know not or dare not explain their case before all these men who stare at them. If they are very ill they are at once admitted in a ward where they find companions who relate to them all the different cures—or deaths. If they are merely ailing, they are told to return every morning; this is generally the case with sufferers from slow, chronic diseases; or, another day the hospital patients will be introduced in the lecture-room of the building, hung with gigantic drawings, studies of the brain, of strange, fearful operations. They will listen to the great man speaking with the authority of an apostle, and their blind trust in his curative powers will grow apace. Their imagination over-stimulated, their nerves unstrung, the expected result, a cure—a temporary one at least—is often attained. All this due in great part to the vivid impression received by the brain. To cure certain forms of disease, in a systematic, quiet fashion, through induced hypnotic sleep is an entirely different affair, and we shall give it our attention in another chapter.

What these various descriptions of scenes that take place almost every day in the year, purpose to demonstrate, is simply that our imagination plays such an important rôle here below, that those who know how to act upon it through the senses by means of exterior im-

pressions almost invariably attain temporary, illusory success; the action of the mind is therefore undeniable, but it is assisted by extraneous elements, such as the influences really exercised by physical agents, by certain personalities, etc.

There are, nevertheless, some examples in which the imagination alone has been called into play. Drs. Bourru and Burot have obtained nasal haemorrhages, and bloody sweats by hypnotic suggestion. Another experiment has become famous and is due to M. Focachon, a French chemist, who showed this phenomenon on a patient whom he brought to Nancy a few years ago. During her sleep, eight postage stamps were applied to her left shoulder while it was suggested to her that they were a blister; within a few minutes a real blister began to develop until it reached a full, usual growth.

Our sentiments, affections—friendships or love—excite our imagination and make us discern qualities, virtues and beauties often where they do not exist; and, on the other hand, hatred, envy and fear, reveal imaginary defects, vices, or deformities. There is, perhaps, no quality that is so magnified by imagination as courage.

There is a disposition now-a-days to cast aside all mysterious or occult forces, as unworthy of true science; but it cannot be denied that small, puny individuals, have often a real influence on their contemporaries, while strong and powerful men have none, even when both are gifted in an equal degree. Sometimes, indeed, those who have no influence whatever on their fellow-creatures are men of undeniable worth. There is therefore some-

thing inherent in human nature, a power peculiar to it—a *living magnetism*—of which we will hereafter speak at length, although we are far from admitting that it is the main producer of the hypnotic state.

This influence is greatly increased by *imitation*. The automatism of the cataleptic subject is a phenomenon of this order. There are imitative thoughts due to our surroundings—just as there are imitative actions. In this case, the reasoning power is not called into action, and sentiment alone guides our sympathy or antipathy; joy, tears, pity, contempt, horror and hatred are undergone without a motive.

“A man is hungry,” writes Dr. Liébeault; “instinctively we put ourselves in his place, and feel hungry; he is thirsty, we feel the same thirst; he suffers, we suffer with him; he is unhappy, we are saddened and ready to weep; and the misfortunes we unwittingly feel we are ready to alleviate in order to alleviate our own feelings.” Somnambulists—natural or artificial—are very much given to this imitative sympathy.

Sympathetic illness is well known; Malebranche quotes the case of a maid servant, who, seeing somebody's foot bleeding, felt in her own foot, at the very same place, an intense pain, which lasted a long while. Virey speaks of another maid suffering a violent pain in her arm on seeing a surgeon cut an abscess on her mistress' arm. Hocquet met with a man who had felt such an acute pain in his heel as to remain permanently lame, only because he had seen an unfortunate man suspended by that part of the foot from a cart. Bérigny heard a woman scream in exactly the same manner as another woman who was suf-

fering in her loins. There are certain miserable wretches who, when they have witnessed an execution by the guillotine, immediately thirst to shed blood. Blood seems to call for blood. Many of the so-called acts of bravery on the battle-field have proved to be nothing but imitations of a few leaders' dare-devil actions.

Popular impulses are collective imitations; they may be epidemic, and then they give rise to strange maladies; for instance: the young women of the village of Millet who, one after the other, hanged themselves; and others, at Lyons, who drowned themselves together in the Rhone; there are also the well known cases of fatal sentry-boxes, in which the soldier mounting guard always shot himself; and of the gate at the Invalides Palace, in Paris, where several old pensioners hanged themselves one after the other. Besides these, there is the instance of a large number of soldiers of the foreign legion and of the 8th Rifles who, while serving in Algiers, all shot themselves in the right wrist.

Hypnotized patients copy the actions, attitudes, and theories of their habitual hypnotizer; Dr. Liébeault tells us that "they unwittingly accept everything from him, become part and parcel of his mind and body, bone as it were of his bones." We will go over the subject again when we shall treat of the *rapport* idea which proves the influence of hypnotizer over hypnotized.

Is it not also imagination, and more especially their attention being absorbed by other matters, that makes wounded soldiers fight on without being conscious of their wounds, and those grievously struck not to feel any pain? Their attention is violently diverted and rivetted on an

emotional idea, their physical sensitivity to pain is temporarily suppressed, just as in somnambulism, therefore they are unconscious of wounds which in a normal state would be extremely painful.

The School of Nancy entirely agrees with—and even goes farther than—the ideas of its founder, as it accepts only suggestion—or the action of imagination—as the sole hypnotic agent. Notwithstanding this opinion we believe, with the Salpêtrière and Charité Schools that it has such power only on *nervous* subjects. The physical phenomena produced by the Paris experimenters, are—according to the opinions held at Nancy—due to the imagination directed in one determined groove. To this, the pupils of Charcot and Luys—now masters in their turn—answer as follows: 1st, hypnotic manifestations are nervous defects, and therefore exceptions to all rules; 2nd, ideas and physical agents often produce the same results, that is to say, *imagination and reality are very nearly identical*.

Patients who have often been sent to sleep, acquire a craving for it, due either to their imagination or to an organic passion similar to alcoholism.

It is a well known fact that certain popular patent medicines cure every complaint for a certain time, unfortunately too brief; hence the phrase “Make haste and take this medicine while it cures.” The confidence of a patient in his doctor, the relief he feels on seeing him, the salutary effect of substances harmless and ineffective in themselves, but declared to be efficacious, are phenomena of the kind which our physicians meet with daily in their practice. These cures or ameliorations of *even organic* diseases take

place mostly among nervous patients. Moreover, who would venture to affirm, in our present over-excited times, in the midst of the turmoil and bustle of cities, that even those patients whose nervous system seems in perfect order are not slightly affected in that direction, and therefore capable of being cured by normal and physical hygiene, working principally on the mind. Examples bearing out this assertion, might be quoted by the hundreds. Whatever may be thought of these discussions and well authenticated cases, and notwithstanding the many side-issues that render them somewhat obscure, it is undeniably evident that imagination, that is to say, the human mind, is capable of great things—and that, so far, the School of Nancy has some very serious ground for considering it almost all-powerful in producing hypnotic manifestations, and especially those comprised within the somnambulistic stage.

3. THE INFLUENCE OF "CREDULITY" AND "EXPECTATION"

The different symptoms of hypnosis may be much more easily understood if we first examine two very common mental phenomena, that many philosophers lay down as laws of the psychical state in human beings, though they would be laws with many exceptions. These rules are—

First; that men have a certain proneness to allow themselves to be influenced by others through their ideas, and in particular to believe much without making conscious logical deductions;

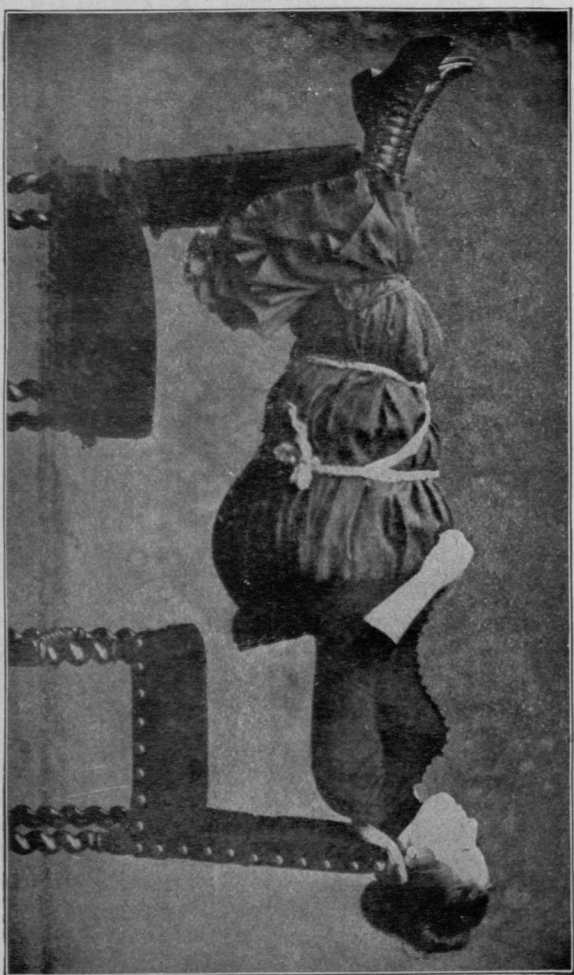
Second; that a psychological or physiological effect tends to appear in a man if he is expecting it. In other

words Credulity and Expectation play most important parts in human life.

A. *Credivity*.* There are people who believe that they can escape external psychical influences; but they are wrong, since observation shows that every one is more or less influenced by ideas. Life is full of such influences, and they will work so long as there is mental activity among men. The desire for society, the necessity of exchanging opinions, show the need we feel of influencing and being influenced by ideas. If we want to convert a political opponent we try to influence him by arousing certain ideas in him. There is in every man—even the most brainy—a gap where these ideas can enter. How many among the greatest statesmen and most distinguished scholars have been dominated by some inferior individual who has discovered the gap where his ideas will enter!

In the same way men have a tendency to believe things without complete logical proof; this is generally known as "credulity." There is no man who believes only what has been logically proved to him. Our sense perceptions show us this in the clearest way; we hardly ever consciously reason upon them, and yet the thing which we take for an external object is only, in reality, an act of our minds, which but seldom corresponds exactly with the unknown object, the thing in itself. But when we consider our behavior with regard to mere assertions, and to assertions often repeated, this credulity is still more patent. Children

* *Credivity* is a word coined by Dr. Luys to indicate the peculiar kind of blind belief in the operator's statement that accompanies certain stages of hypnotism.



Absolute Cataplectic Rigidity.

are most influenced by it, although adults are also under its jurisdiction. This is shown in the clearest way in the treatment undergone by the subject we are studying in this volume. A few years ago it was believed that there was really no such thing as hypnotism, and that those who believed in it were deceived. But since then the representations made by different people in authority as to the reality of the hypnotic phenomena, and particularly the repeated assertions of numerous investigators, have caused a complete change of view. Doctors and others have changed their minds about hypnotism, "not because it has been proved" to them, but exclusively because they have been "influenced by constantly hearing and reading the same assertions" about it, and by their faith in authority.

B. *Expectation.* The above explanations, to which every one can add from his own experience, sufficiently prove that all men are credulous to a certain degree. Now for the second proposition—*i. e.*, that almost any personal impression or emotion effect which a man positively expects to undergo is pretty certain to appear—and within a very short time. We can find a great number of these phenomena in every-day life; we shall now describe a few of them.

People suffering from sleeplessness have often been sent to sleep by taking something which they were told was a sleeping draught, but which was really some inert substance. They slept because they expected to do so. If told, later, that the medicine is not a sleeping draught, they no longer expect sleep, and do not sleep. It appears from this that to expect a state, and to wish for it, are

essentially different things; which fact is often strangely enough overlooked. A great many people wish for sleep, but as they do not expect it, it does not come. The rule holds good for the functions of the motor organs as well as the others. Let us take hysterical paralysis for instance; it is well known that such a paralysis is sometimes cured at the exact moment the patient expects. Many mysterious effects may be thus explained. Hysterical patients can often foretell an improvement in their paralyses. This gift of prophecy need not astonish us if we only admit that the hysterical patient is cured at a particular time because he expects to be—the prophecy causing its own fulfilment.

Of course there are exceptions to this curious rule. However much a sufferer from severe myelitis* may expect his paralyzed legs to move they will not do so, because the impediments are too great to be overcome by his most passionate expectation of his recovering suddenly.

Another example of the power of expectation. People are often sick when they expect to be sick at a particular time, and particularly if they think they have taken an emetic; and stammerers stammer because they expect to stammer.

Many observations show that the above rule holds good for the organs of sense under particular circumstances. Here is a case related by Bentivegni. A judicial disinterment was to be made; the grave was opened, and the coffin raised; the official who was present said that he already smelt putrefaction, but when the coffin was opened

* An inflammation of the spine.

it was found to be empty. Here expectation caused a distinct sense perception. There are many examples to prove that the sense of touch and the sense of temperature are particularly subject to delusion; thus in certain experiments of Braid, Weinhold, and others, persons, doctors among the number, were blindfolded, then told that they were going to be mesmerized; and even when this was not true, they invariably imagined they felt the current of air caused by the passes; they believed they knew the exact moment when the passes had begun. Here again we see expectation producing a perception. Many people begin to feel the pain of an operation actually before the knife has touched them, simply because their attention is concentrated upon the beginning of the operation.

It is evident that both credivity and expectation, taken in the above senses, are the products of imagination, excited by certain particular causes; the *exteriorizing* of an idea, a sensation making it *real* when it is only mental, is produced here as in other manifestations of pure imaginary emotions. We cannot insist too much upon the importance of these few statements, as their full understanding will render the theory of *hypnotic suggestion* comparatively easy to grasp and assimilate.

Now, the previous discussion makes it evident that to produce any physical disturbances in a subject who is at present in a perfectly normal state, we must first of all draw his attention to the desired effect, and make him firmly expect it; we must make him *believe* and *expect*. If we succeed in capturing the subject's attention to such a point that he firmly believes, for instance, that his arm will be paralyzed—the paralysis will generally happen.

Supposing such a paralysis induced, the subject's mental balance is already seriously disturbed. He suffers from a distinct and peculiar feeling of weakened will-power. This feeling is very important as it will cause the subject's power of resistance to be lessened more and more. When one limb has been paralyzed it is easier to paralyze a second, because the subject already doubts his own power to resist. Here again "Expectation" plays a great part. Thus, when the subject can no longer voluntarily move a limb, or part of it, very much has been gained for further susceptibility to suggestion, because the consciousness of weakness favors the acceptance of later suggestions. The development of suggestibility need no longer astonish us, since we have found clues to its production in *credivity* and *expectation*. To destroy the subject's confidence in his power to resist suggestion is the first step toward his obeying this, and the next suggestion.

Thus it comes to be that most of the methods used to induce hypnosis are alike in one particular—they direct the subject's attention to some change in the functions of the muscles. The process of the school of Nancy consists chiefly in making the subject expect as strongly as possible the closing of his eyes. But other methods induce abnormalities in the functions of single limbs in just the same way. For example, an arm or leg loses its power to move when the operator concentrates the attention of the subject upon the loss of power to move. In fact, it is quite unnecessary to begin with the eyes, as most hypnotizers do; we can begin with any member.

It does not matter either whether the first disturbance is a muscular action performed against the subject's will—

that is, a certain movement which the subject makes when ordered to—or whether it is an inability to move, caused also by a command. The great thing is to gain enough influence over the subject by gradually destroying his belief that he can resist you. In any case we should begin with the disturbance which is the easiest to induce, because one success increases the experimenter's influence. Now, as a rule, it is easier to stop an action than to cause it. Thus, we assure a person whose arm is stretched out that he is tired and cannot hold it out any longer. The words are hardly out of our mouth when there is a momentary pull downwards, showing plainly that there is often susceptibility to suggestion without hypnosis. We will briefly recapitulate; the disturbances of voluntary movement induced by suggestion in hypnosis are caused by the experimenter's directing the attention of the subject as strongly as possible to the desired effect. When the attempt has once succeeded, further disturbances may be more easily induced, since the subject is already persuaded of his inability to resist.

But the effects of expectant attention illustrated above are shown much more plainly in the voluntary movements. It is even not always necessary that a movement should be very intently expected; the idea of the movement will induce it. Let a man bend his arm at the elbow at right angles, and think that the arm will bend quickly, without expecting it to do so; if he fixes his whole attention on this idea the movement will very soon follow. We have demonstrated, so far, how credivity and expectation may bring about physical disturbance in the movements, etc., without the interference of hypnotism; we shall now fur-

nish brief evidence that sense illusions or hallucinations met with constantly in hypnotic experiments are due very much to the same causes. In fact, whenever our reason weakens we succumb to their allurements.

We affirm, to begin with, that we are exposed to such delusions otherwise than in hypnosis. For instance, we say to some one who is quite awake, "A rat is running behind you." The man can assure himself at once by turning round that there is no rat, but he is sure to have a mental image of a rat for a moment, because we spoke of it; this is really a transitory hallucination.

Its persistence is prevented in two ways. First, the man could convince himself by means of his senses that no rat was there. Second, reflection and former pictures of memory would convince him that no rat was ever seen where he is now. In fact, sense perceptions are not always needed to prevent hallucination; calm, critical reflection is enough. This is often of more value in preventing a threatening hallucination than the perceptions. But, it is essential that the will-power be not weakened to the point of preventing the free working of judgment.

Imagination, Credulity, Expectation have now been shown to play a dominant part in the little drama that is acted whenever hypnosis is induced. They are factors in most of the phenomena of the waking state; they help creating the hypnotic state; and while it lasts, they are still at work—in a modified form, creating hallucinations and—above all—rendering the subject easily influenced by suggestion. When treating specially of Suggestion, in the Chapters comprised under the general

title of "The Practice of Hypnotism," we shall have frequent occasion to refer to this trio of psychic forces in whose existence and operation reside, we earnestly believe, the true causes of all hypnotic manifestations.

4. MAGNETISM,* AN INDUCER OF HYPNOTIC PHENOMENA

As we had occasion to say and repeat many times in the preceding chapters, "The cause of hypnotism is in the subject himself." It can be put in motion and begins to manifest itself either:

- 1, By the use of *physical agents*, affecting one of the five senses.

- 2, By acting systematically upon the *credulity* and the *expectation* tendency of the subject, so as to weaken his power of resistance when a suggestion is made by the operator who has gained ascendancy over him;

- 3, By means of what is called *animal magnetism*, or the personal physical influence of a certain fluid set in motion or *passed* from the operator to the subject.

Now, this personal influence, which was claimed by Mesmer, de Puységur and their followers,—down to the platform performers and the cure-all doctors of the present day—as the real producing agent of the peculiar physiological and psychological state we now all agree in calling "Hypnotism"—this influence, whatever it is, and whether or not emanating from the causes claimed by its adepts, is a sufficiently interesting subject of study to discuss in a

* In this chapter, the word "Magnetism" is not used as a synonym of "hypnotism" but rather as an antonym, in so far as it will refer to sleep, etc. produced by *passes*, in contradistinction to sleep produced by *physical agents* or by mere *suggestions*.

chapter by itself. And although we are not among the devotees of this particular doctrine, we will endeavor to present its claims with absolute impartiality and sufficient detail.

The first affirmation of the magnetizers is: there must exist a force, emanating from the individual, the variations of which are manifold. Sometimes it is nothing stronger than a sympathy existing between two human beings for a determined time, even for a whole lifetime. Antipathy and hatred may also be turned into sympathy and love; there are therefore veritable transformations, or in other words, changes in the direction of the force in question, which from being divergent, becomes convergent.

If we compare these phenomena with those of mineral magnetism,* for instance, we find a certain analogy between them; a north and south pole attract one another, two south poles repel one another, etc. This explains the mutual attraction that dissimilar characters experience, and the repulsion felt by similar characters.

The analogy between animal magnetism and mineral magnetism may extend still farther. A magnetizer is often able to elicit or displace the emotions of his subject; hence the claim that there are tracks (or curves) of force, representing the emotions, the dimensions of which vary according to the power of the operator.

To strengthen the opinion that, after all, animal magnetism and electricity are but varied manifestations of one and the same mysterious fluid, it has been pointed out that human beings have been seen to develop electricity. The

* Meaning the peculiar power of the lodestone in the original "magnet."

most celebrated case was that of Angélique Cottin, a small young girl of thirteen, quite robust, but extremely apathetic. From the 15th of January, 1846, the day on which the phenomena first manifested themselves, she was under Dr. de Farémont's constant personal observation, and was also examined by a large number of prominent physicians; no accusation of fraud was ever raised against her. Slight shocks were felt on touching her, the furniture and utensils moved when she came in contact with them, and things touched or worn by her were violently repelled.

There are numerous examples of this kind; Dr. Féré described, in 1884, the case of a young woman of twenty-nine, whose whole body at the contact of her under linen emitted crackling sparks, and whose clothes adhered so tightly that her movements were thwarted; whenever she felt any violent emotion, these symptoms were intensified. The electricity thus produced was of the positive kind.

We think the readers will find some interest in a brief description of such differences as have been observed between *hypnotism*, that is sleep due to physical agents, and *magnetism*, that is the very similar state, due to the action of man upon man.

Drs. Binet and Féré stated that the phenomena of *elective sensibility** are greatly developed during the somnambulistic stage of hypnotism. In this state the patients often display a kind of attraction for the operator who has induced them to sleep by touching them on the crown of the head. If this pressure is made with any other agent

* A state in which the sensibility of the subject is affected only by a particular operator.

than the hand, we obtain *indifferent somnambulism*;† any person can approach the subject, cause contraction of his limbs, impart suggestions, in fact there is in this case no individual influence.

But it is quite different in the case of *elective sensibility*. When the operator has exerted pressure of the hand on the top of the subject's head, or has breathed on him, the subject seems drawn towards the operator, and directly the latter moves away the subject will manifest anxiety and discomfort. Sometimes he will follow the operator moaning, and will only be calmed when near him. Any foreign touch elicits painful symptoms.

But this particular state is not obtained only by the use of magnetic *passes*. This is often the result of imitation and suggestion; this latter may bring on a state of elective sensibility, at a given date,* and in the absence of the operator. In fact, operators frequently reach this state by their suggestions and forbid the subject to accept any suggestions from any other person, or even to let themselves be hypnotized by a third party.

The indifferent state may be transformed into the elective by touching with the naked hand a subject in the first state. And even if two observers touch the subject's hands, each one has only the sympathy of that half of the body that corresponds with the hand that he touches.

The patient hears and sees only the person who has put him into the elective somnambulistic state; his contractions will be relaxed only through that same person,

† A state in which the sensibility of the subject is affected by anyone.
See chapter on "Post-Hypnotic Suggestion".

and the patient will listen only to the suggestions of that agent.

Of course—as stated above—the main claim of the mesmerizer is, that in animal magnetism the chief part is played by a personal influence, and is not the result of the mere suggestion, which A. exercises over B. The following examples will make this clear:

A. tells B., “You cannot speak.” B. hears, and cannot speak; this is nothing but suggestion. If A. makes mesmeric passes down B.’s arm, and insensibility of the limb follows, this may be also suggestion, for B. knows what A. is doing, and the result may be produced simply by B.’s imagination. Now let us suppose that C. comes on the scene, and makes passes over B.’s arm, and that insensibility does not take place; suggestion explains this, too; for B. believes that A. can induce this deadening effect, and that C. cannot, and the results agree with his belief.

But where the case is different is when B. does not know whether A. or C. is making the passes. According to the views of the adherents of the mesmerists, A. can produce insensibility by magnetizing and C. cannot. They therefore think that A. has some physical influence which suggestion does not explain. They emphatically affirm that such an influence is an inherent power in some people, and exists not in others.

Thus the mesmerists believe that a man who has this power can cause local or general analgesia* or contractions, or even cure diseases. They claim they can magnetize children under a year old, and influence them in a

* Same as insensibility.

curative way. As children are impervious to suggestion, on account of the lack of development of their mental faculties, if they really show subjection to a power of this kind, it can only be due to some fluid passed from the operator. Liébeault, the founder of the Nancy school and of the method of suggestion, who disputed the magnetic influence in 1866, became a firm adherent of it later, and in 1883 published a book in which he describes cures of children under three years. However, it is only fair to say that, since, Liébeault appears to have abandoned his recently acquired belief in animal magnetism.

Besides the effects named—insensibilization, contraction, healing of diseases, and influence on young children—other effects of animal magnetism are mentioned as proving the existence of the force.

Du Prel, one of its decided adherents, makes the following rather startling affirmations: First, animals can be magnetized, in which case he thinks suggestion out of the question. One might object that it is by no means proved that animals are not susceptible to suggestion; for instance, if an animal is held for some time, why should it not be able to conclude that it is unable to move, even after it has been released? Many eminent experimenters hold this view. Second, Du Prel speaks of magnetic experiments on sleeping persons, i. e., on persons who did not know they were being magnetized. But it must be remarked that sleep does not involve an absolute loss of consciousness; consequently, suggestion may not be impossible in sleep. Third, the same author speaks of magnetizing people at a distance, as well as asleep, in which case suggestion is also supposed to be excluded.

Fourth, he says that plants can be magnetized and their growth thus influenced.* Fifth, the magnetic force can be passed on to inanimate objects, which then have the same effect as the magnetizer. Sixth, Du Prel brings forward the thought-transference (known now as telepathy) which we shall discuss further, in proof of animal magnetism.

The magnetic influence is used by means of "mesmeric passes," by touch, by the gaze of operator fixed on the eyes of the subject, by breathing on the subject, and some think by concentration of thought and will on the desired result.

The mesmeric passes are most generally used. Much information about the direction of the passes can be found in the books of the mesmerists. The effect is supposed to be different according as the passes are *upwards* or *downwards*, or made with the back or palm of the hand, apart from suggestion. The right and left sides have different effects.

The mesmerists have put forth many theories to explain this personal influence. That of Mesmer himself may be summarized herein, because many false views are widespread about them. He says the whole universe is filled with a fluid which is more subtle than ether, just as ether is more subtle than air, and air than water. This fluid conducts vibrations just like ether, air, and water. As the vibrations of the light-ether cause light, and those of air cause sounds, so the vibrations of this universal fluid cause

* He evidently alludes to the curious tricks of the Hindoo fakirs, which have been exposed since as mere feats of jugglery.

other phenomena.* The mutual influence which the heavenly bodies undisputedly exercise on each other and the earth are caused by the vibrations of this fluid. One animal body influences another by means of the vibrations of this fluid. Mesmer called this animal magnetism.

This theory of Mesmer's is often confused with another theory of a fluid. Mesmer was thinking of a universally extended fluid—filling the space between the heavenly bodies. Another theory supposes a fluid produced by, or emanating from, the nerves, and called outwards by movement. This is often called Haller's doctrine.† Understand, these are not mere notions invented and defended by impostors and fools. Many clever men—the great Alexander von Humboldt (1779-1859), for example—thought that a force in the nervous system could produce effects at a distance, if not at a great distance. The well-known German physician, Johann Reil (1759-1813), held a like view. In many cases the mesmerists had the support of eminent scientists, who supposed a nervous fluid surrounding men, and even quite lately they have found some adherents among the regular learned professions.

The mesmerists maintain that sleep need not always be induced before a person can be magnetically influenced; that the subjects may be thoroughly awake; and that this is the radical distinction between mesmerism and hypnotism. To this, we may answer that light hypnosis does

* This theory of vibrations or waves is somewhat confirmed by the discovery of the Herztian electrical waves upon which Marconi Wireless Telegraphy is based.

† A Swiss scientist (1708-1777) claimed by many as the discoverer of Mesmer's principles.

not always presuppose sleep, and that leads us to the following conclusion: What the old mesmerists called magnetic states were but the minor stages of hypnotism. Besides, the mesmerists did not use the personal methods exclusively; they also used inanimate objects for magnetizing, such as the *baquet* of Mesmer and Puységur's magnetized tree. They explained this by affirming that the magnetic force passed into the object from the magnetizer. When no magnetizer has touched the object, as is the case in Braid's method, then the mesmerizers declare that the fluid of the subject is reflected from the object gazed at, and that he is thus affected by his own fluid.

Strange as it may seem, this peculiar influence that one human body exerts over another without contact, can be mathematically registered, thanks to the *magnetometre*, invented by a French priest, the Abbé Fortin, of Chalette, and presented by its inventor to the Academy of Sciences in 1890. It announces the approach of storms by the variations of a metallic needle, which is neither magnetic nor magnetizable, but in any case very mobile; it has, moreover—and this is an important detail—the curious property of deviating when a hand approaches it. If the hand is held for five minutes in the vicinity of the needle, from which it is separated by the glass globe that contains the instrument, no effect is produced; but two or three minutes after the hand is removed the needle displaces itself to an angle that varies with each different operator. This curious deviation cannot be attributed—on account of the slowness of the action—either to electricity or mineral magnetism, at least in so far as their action is at present scientifically known.

Dr. Ochorowicz's *hypnoscope** and Dr. Durville's *sensitivometre*, which they have devised as instruments for testing hypnotic susceptibility, have in many cases given no appreciable result; whether from the people they were tested on not being hypnotizable, or from nullity of action, it is impossible to say.



A MAGNETIZED SUBJECT IN THE LETHARGIC STAGE

* The Hypnoscope is an iron magnet in the form of a ring, which the person to be tested puts on his finger. Hypnotizable persons are supposed to experience certain sensations in the skin and twitchings of the muscles, while with the non-hypnotizable nothing of the kind takes place.

5. THE INFLUENCE OF THE MAGNET

THE THEORY OF THE "OD." POLARITY. POLARIZATION

For thousands of years the more civilized among the Oriental races have believed in the action of the magnet on human beings. The Magi of the East used it for curing diseases, and the Chinese and Hindoos had in its curious properties illimited confidence. Albertus Magnus in the 13th century, and later Paracelsus, Van Helmont, and Father Kircher also used it, as well as the astronomer and ex-Jesuit Hell of Vienna at the end of the 18th century. Mesmer is said to have heard from him of its effect upon men, and he also used it at first. Even then many doctors denied the curative action of the magnet, and asserted, as others do at present, that plain brass plates did as well. Dr. Reil, however, used the magnet therapeutically. But the most thorough researches entered upon scientifically in this line of study date from the year 1845, and are due to Baron von Reichenbach, a highly distinguished Austrian chemist, who devoted to this pursuit nearly thirty years of his life, and a portion of his large fortune.

In the first place, the Baron recognized, by the aid of sensations of heat and cold produced on certain subjects, and subsequently by that of luminous impressions sustained by the same subjects after being kept for a long period in profound darkness, that animals, vegetables, crystals and magnets, in a word, all bodies whose mole-

cules exhibit a decided orientation, give out *effluvia*, imbued like the electric fluid, with contrary properties, in proportion to the repartition of those fluids in the bodies which emit them. Reichenbach further demonstrated the production of these effluvia in luminous, calorific, chemical, mechanical, electric and magnetic phenomena; that is to say, in all action tending to modify the vibrating properties of matter.

To this force he gave the name of *Od*;* and he designated as "*Sensitivity*" the faculty of the "perception of effects"—a faculty possessed by the nervous system of certain subjects.

The repartition of the *Od* in bodies takes place, as regards superior organizations, according to laws of a sufficiently complicated character, which it is not necessary to refer to further here. It suffices to say, generally, that the right side of a man possesses a "polarity," that is to say a certain kind of *Od*, "differing from that of the left side;" and the front of the body, one differing from that of the back; *these two polarities crossing and interlacing, but without influencing each other.*

They act upon the structure of the body, take part in its development and configuration, and are a chief factor in securing the regularity of its functions.

If the balance that ought to exist between the two kinds of *Od* fluid (if we may express ourselves in this rather scientific manner) is affected internally, symptoms of sensitivity are developed; and if this disturbance becomes more considerable, it constitutes real disease. In that case, con-

* From a Sanskrit word meaning "all-penetrating".

tractions, somnambulism, catalepsy, and in extreme cases, insanity may be the result.

A certain degree of influence over the *Od* when distributed in the interior of the body has been obtained by means of *passes*—of which the use has been known from time immemorial—made by the hand along the whole length of the body. This modification of the influence constitutes, in some cases, a valuable therapeutic agent; and often saves the patient when all other remedies have proved to be ineffectual.

The causes of the formation of *Od* in the human body are partly mechanical, partly chemical. The circulation of the blood produces, by friction, positive *Od*; or that which, according to Reichenbach, produces the same effect upon the nervous organization as the south pole of the magnet; and the same may be predicted of every sort of motion. The chemical action of the respiration, of the digestion, of the secretion of the glands, produces negative *Od*. The brain and the ganglions appear to be the principal centres both of its production and its solution.

The motion of the *Od*, or what is called by magnetizers the *current*, issues principally from the brain; it runs along the course of the nerves, and follows them out to the farthest ramifications; until it finally exudes in the air, and makes its presence felt by the impressions which it produces upon sensitive subjects. Such individuals as are easily affected, discern immediately, even in the dark, the course of the blood, and the ramifications of the nervous system, by virtue of the intenser light which they themselves emit.

Baron Reichenbach further recognized the fact that the

Od traverses certain bodies and is intercepted by others; also that it can be both reflected and refracted, and, consequently, concentrated by means of mirrors and burning-glasses. These experiments have been reproduced by Dr. Ashburner, to whom we owe an English translation, with commentaries, of *Physical and physiological researches on dynamics, etc.*; one of the most important works of the Austrian chemist.

A number of other 19th century scientists, who appear to have known little or nothing of the investigations of Reichenbach, have equally recognized the existence of a polarized fluid, or of a *radiating nervous force*, capable of reproducing the different phases of hypnotism described by the School of the Salpêtrière, and acting under the influence of laws, the principal of which may be thus summarized: *Od*, of a determined polarity (positive or negative), produces upon organs charged with *Od* of the same denominations, first, general or local insensitvity to pain, and then different degrees of sleep; it awakens, or produces abnormal existence, by acting upon organs charged with *Od* of a contrary designation.

These states differ from each other according to the repartition of polarity; no doubt because, according to the observation of Reichenbach, these polarities themselves are multiple and interlaced, some one or other of them being capable of predominating in a given subject, either in consequence of the peculiar conformation of that subject, or of the *training* which he has received.

It must not, in fact, be forgotten that the problem these distinguished savants have attempted to solve is of an exceptionally complicated character. Not only have we

for the subject whose action is to be responsive an individual endowed with life, and consequently liable to voluntary or involuntary errors, on account of his physical or moral temperament, but, besides, the emission of *Od* which attends most of the phenomena of Nature, outside of those more specially under observation, tends to complicate and perpetually falsify the manifestations of the laws which preside over such action.

The state of health or the mental and bodily disposition of the subject, the time of day at which he is experimented on, the nearness of certain bodies, constitute so many influences which may result in giving apparently contradictory conclusions.

Colonel de Rochas has endeavored, as far as in him lay, to take into account these various causes of error; and by prolonging the action of polarity upon highly sensitive subjects, he has been able, first, to reproduce the different phases of hypnotism, and, subsequently, most of those known to magnetizers. By using the *Od*, so to speak, in doses, he has been able to follow out its effects step by step; and has classed those conditions in the order in which they presented themselves in the persons of the majority of the subjects, and in proportion as the hypnotic state was better understood.

He has demonstrated, moreover, that these conditions, with their characteristic properties, could be produced, not only by the human *Od*, but by the *Od* which is derived from other sources, notably, by static or dynamic electricity and by magnets.

Thus, a subject through whom an electric current has been made to pass in certain proportions can be brought

into a condition of *rapport*,* that is, a condition in which he can neither see, hear, nor feel anyone but one particular person traversed by a current in the same direction. By changing the direction of the current the subject is brought back to the waking state, and goes through again, but in inverse order, all the phases through which he has passed when being put to sleep.

On certain sensitive subjects, Colonel de Rochas was able to produce these states only in the positive parts of their organism, by charging them with positive electricity administered mechanically; and then, by replacing positive electricity with negative electricity, to bring back the same parts to their normal condition, and to put to sleep in their turn the negative parts.

A possible way of influencing the hypnotic subject by the magnet is given by Tamburini and Seppilli. They think that when the magnet is brought close to the pit of the stomach it influences the respiratory movements. The electro-magnet is said to have the same effect whether the current be open or closed.

In conclusion, there are Dr. Babinski's experiments, at the Salpêtrière Hospital, founded on a union of true magnetism† and animal magnetism. If a hypnotized subject and a sick person are set back to back, a magnet put between them will cause the sick person's symptoms to pass over to the hypnotized subject. Hysterical dumbness and

* This question of the rapport will be found exhaustively treated in our Third Part: *The Practice of Hypnotism*. This is one of the most interesting points of the whole discussion, and to some extent is perhaps the best argument of the Magnetizers vs. the Hypnotizers.

† "True" magnetism is a synonym of "mineral" magnetism, i. e., that produced by the lodestone or its electric equivalent.

muscular contractions have been thus transferred. Even symptoms of organic disease have been transferred in this way. To make sure that the phenomena were not caused by suggestion, the hypnotic subjects were not made aware of what the sick person's symptoms were. Dr. Luys made such experiments with the same result, at the Charité Hospital.

All these actions of the magnet are very enigmatical; but it is on record that the phenomena have been observed by many experimenters of high repute, and at many different times.

To the above interesting statements must be added the further researches made on the curious phenomena of the *transfer* of contractions and other physical troubles from one subject to another, under the influence of magnets, and the results which have been obtained respecting them by a number of prominent physicians in Europe and America, Dr. Babinski, of the Salpêtrière, having taken the lead in that direction as early as 1886.

6. THE HYPNOTIC STATE IN ANIMALS; WHAT IT MEANS

The Mesmerizers, whenever they wish to silence their stubborn adversaries, the Hypnotizers, never fail to call their attention to the fact that there must certainly be some sort of fluid that produces the hypnotic state, since dumb animals—which, they claim, cannot be influenced by suggestion since they lack a sufficiently developed mental organ—can be made to fall into artificial sleep.

Whether or not we accept the extreme conclusions of the believers in a personal fluid, we are bound to admit

that man is not the only being in creation in whom sleep can be artificially produced.

As early as the year 1636, Daniel Schwenter hypnotized cocks and hens, and invented an amusement which soon became popular in many countries. It was, however, only in 1646 that this mode of investigation was followed up—at least authentically—by Father Kircher, a distinguished Jesuit of the 18th century, the ingenious inventor of the Eolian harp, and of magic lanterns. He put hens to sleep by tying their legs together and placing them before a chalk line drawn on the ground. This recalls the *magic circle* of the famous magnetizer, Baron du Potet, who with a bit of charcoal or chalk would trace on the ground some geometrical figure which his subjects were unable to cross; for when Father Kircher released the bird it remained motionless.

This reminds us of a well-known and very curious practice of the farmers' wives in Normandy. In order to induce a hen to sit on her eggs, they put her head under her wing and gently rock her to and fro. The bird falls asleep, and when she awakes will remain upon the nest she has been placed on.

Colonel de Rochas quotes several curious cases of hypnotism applied to animals. Here is an account of the more striking among these experiments.

At Boston, in 1881, Bérard used to produce a cataleptic state in animals by means of fear, or a bright light, or music, magnetic passes, or a fixed gaze.

The magnetizer Lafontaine had already held public exhibitions in Paris, in which he reduced cats, dogs, squirrels, and lions to such complete insensibility that they felt



The Jesuit Father Kircher and his Rooster.

neither pricks nor blows. He could throw lizards into a sleep that would last several days.

The Eastern traveler, Jacolliot, tells us that the fakirs produce a cataleptic stiffness in snakes by soft and monotonous music, followed up by a fixed gaze and magnetic passes.

Here is a passage from an interesting work* by the same Frenchman, that contains curious details concerning the *Aissaouas*, or serpent charmers, of the province of Sous (Morocco), who publicly performed† at the Chicago Columbian Exhibition of 1893. Their instruments are long reeds shaped like flutes, and pierced at each end. By blowing into one of the holes they produce a melancholy sound, which they prolong harmoniously.

“ . . . The principal charmer,” writes Jacolliot, “begin by whirling with astonishing rapidity in a kind of frenzied dance around the wicker-basket that contained the serpents, which were covered by a goat skin. Suddenly he stopped, plunged his naked arm into the basket, and drew out a *cobra-de-capello*, or else a *haje*, a fearful reptile which is able to swell its head by spreading out the scales that cover it, and which is thought to be Cleopatra’s asp, the serpent of Egypt. In Morocco it is known as the *buska*. The charmer folded and unfolded the greenish-black viper, as if it were a piece of muslin; he rolled it like a turban round his head, and continued his dance

* “Voyage au Pays des Perles.”

† Their exhibition in America did not include snake-charming, but consisted of what might be called a “kind of auto-hypnotism” during which, after having placed themselves in a state of total insensibility to pain, they would cut and pierce the skin and flesh without a show of suffering. [See Chapter on “Simulation,”]

while the serpent maintained its position, and seemed to follow every movement and wish of the dancer.

"The *buska* was then placed on the ground, and raising itself straight on end, in the attitude it assumes on desert wilds to attack travelers, began to sway from right to left, following the rhythm of the music. The Aïssaoua, whirling more and more rapidly in constantly narrowing circles, plunged his hand once more rapidly into the basket, and pulled out two of the most venomous reptiles of the deserts of Sous; serpents thicker than a man's arm, two or three feet long, whose shining scales are spotted black and yellow, and whose bite sends, as it were, a burning fire through the veins. Europeans call it the *leffah*.

"The two *leffahs*, less docile than the *buska*, lay half-curved up, their heads on one side, ready to dart forward, and followed with glittering eyes the movements of the dancer. . . . Hindoo charmers are still more wonderful; they juggle with a dozen different species of reptiles at a time, making them come and go, leap, dance, and lie down like the gentlest of tame animals."

Of course, the reader has heard what has been said about the power the serpent itself possesses, and which enables it to fascinate its prey with the fixed gaze of its glittering eye. After a certain time the exhausted victim yields to the reptile. The peculiar fear inspired by serpents is common to men and animals alike; it even attains in certain lower species a peculiar state of passive torpor. In such cases the brain is in a state of complete suspense; the motor muscles are paralyzed, and cataleptic rigidity ensues; the serpent is a real hypnotizer.

The mere noise of the rattlesnake's tail has been known

to render a man motionless and unable to escape. Travelers state that they have felt themselves forcibly impelled towards boa-constrictors.

Romanes, Pennant, Thompson, and Le Vaillant—travelers and scientists—have declared their belief in this power of fascination, or rather in the fear exercised by serpents on small animals. They have witnessed cases of death in squirrels, mice, and shrikes resulting from such fascination. Fayrer has gone so far as to maintain that fascination is only a synonym of fear. Dr. Barton of Philadelphia writes that it is only the danger threatening their nests that causes fear in birds; and that fascination does not exist. Dr. Liébeault once saw a small bird fall to the ground in terror of a hawk. Montaigne mentions a bird which let itself fall, half-dead with fright, into the claws of a cat. A partridge will remain motionless before the eyes of a pointer. It has been found in the London Zoological Gardens, that a rabbit placed in front of a boa, becomes completely paralyzed.

Fascination—linked probably with a sentiment of curiosity—may also be produced by fire or a light. A moth will flutter round a lamp and dash itself against it. Migrating birds will deviate in their nocturnal flight, to hover over the lights of a large city, of a lighthouse, of a conflagration. This hypnotic fascination has frequently been made use of by man.

It has often been stated that the most vicious horse can be shod if a person looks at it steadily in the eyes during the operation. Restive steeds have been mastered by magnetic passes over the neck and muzzle, and the incessant repetition of words uttered in a caressing tone. Czer-

mack in 1873 induced catalepsy in birds, crayfish and rabbits by simply fixing an object (either the finger or a lighted match) before their eyes, and holding them motionless for a few minutes. Dr. Liébeault has on two occasions used the following method to appease a snarling and ill-tempered dog: He fixed his gaze steadily on a hound, that showed him its teeth whenever the Doctor entered his master's house, at the same time pointing two fingers at it like a fork. It barked for a long time, then drew back and cowered between the legs of one of the persons present. Then he called it; the dog approached, allowed itself to be patted and finally lay down in peace.

It is a fact that hypnotism was in full force, even before the word existed, in wild beast shows. The tamer's art is nothing else than suggestion in the waking state, such as is practised on man; it does not consist in implanting a will foreign to his own, as suggestion is generally defined, but in calling into action the beast's own disturbed imagination. But in this case, it is always the same idea that is suggested to the animal by connecting it with the fear of a power superior to its own.

The suggestion made by the more or less powerful or glittering gaze of the tamer, is assisted by mechanical means of correction or intimidation, and—magnetizers believe—by the magnetic fluid. The animals are weakened either by being deprived of sleep and food, or by an abundant supply of debilitating food. Still the tamer must not lose for a moment his presence of mind, his steady eye, and his imperative audacity. Surrounding circumstances aid him greatly; the eyes of the spectators riveted on the performance intimidate the lion, and embolden the man;

a sudden, vivid light dazes the animal, and a loud strain of music, ever the same, crows the beast. The man then appears; everything is at once hushed, as at the approach of a master; and the trembling, uneasy animal gives way before his master, who now advances with a firm step, strikes a violent blow on the bars with the loaded whip he holds in his hand, and goes in and out of the cage, without taking his eyes off the beast for one instant.

These performances go on for some time; then one fine day, we learn that the obedient animal has devoured his tamer. It has taken its revenge, as was to be expected. Wild beast shows would have to be suppressed if the repetition of similar accidents were to be avoided.

All the different stages of hypnotic sleep are to be met with in animals; *lethargy*, with complete inertia; *catalepsy*, with corpse-like rigidity; and *somnambulism* with the dreams and hallucinations of natural sleep, or the suggestions produced by induced sleep.

Apparent death is frequently seen in animals, and is generally due to catalepsy. In this case it is involuntary and the result of paralysis of the motor power, occasioned by fear.

Professor Preyer, in his studies on hypnotism in animals, declares that fear is a powerful predisposing cause of cataleptic hypnosis in animals. He even attributes the appearance presented by insects that *simulate death* exclusively to a cataleptic state. This influence produces an analogous condition in a higher order of animals, even with the cray-fish, which can be made, in an hypnotic condition, to stand on its head, and it seems reasonable to attribute simulated death in insects to the same cause.

Real death and simulated death are easily distinguishable in every species of animal.

To induce hypnosis in animals, it is necessary to make use of either gentle and prolonged, or strong, short, cutaneous* excitations. If the nostrils of a guinea-pig are gently squeezed with a pair of pincers, it will be found, after a certain lapse of time, that its stupor is so great that it can be made to assume the most whimsical attitudes, without being awakened.

If a frog is gently held between the fingers with the thumb on its abdomen, and the four fingers on its back, at the end of two or three minutes the creature will become perfectly motionless. It can then be stretched out on its back, or be put in the most fantastic positions, without its attempting to resist or escape. A similar paralytic state may be induced by gently scratching the frog on its back.

Catalepsy, either caused by disease or as a stage of induced hypnosis, produces such rigidity in a human being, that it seems as though he would break like glass if any attempt were made to bend him. And is it not a similar phenomenon that makes the *slow-worm*, with its rudimentary limbs hidden under its skin, break when caught hold of, just like a glass stick?

Lethargy—sleep with absolute inertia—exists also during *hibernation*; this is the name given to the condition of those animals, such as dormice, marmots and bats, that sleep all through the winter months. But there is some exaggeration in calling the hibernal condition cataleptic

* Cutaneous means "of the skin".

sleep, as Dr. Liébeault has done in his book on sleep, as no special rigidity, proper to this phase of hypnotism, has ever been noticed in animals thus asleep, neither can it be attributed to suggestion.

The numerous facts we have just given have all been thoroughly verified by scientists in whose judgment we may rely implicitly. They certainly indicate the positive existence, in the lower animals, of symptoms akin, if not absolutely similar, to those observed in the various stages of the hypnotic sleep.

7. SIMULATION: VOLUNTARY OR INVOLUNTARY

Before presenting to the readers the final part of this work, which includes all the Practical Methods of Inducing the Hypnotic manifestations—it is important that we should give some attention to this most frequent element of annoying disturbances: *Simulation of hypnotic symptoms* on the part of subjects believed, in many cases, to be fairly honest and truthful in current intercourse. These deceptions—voluntary or involuntary—have greatly contributed to discredit the study of Hypnotism, and, unfortunately, a number of platform operators have not hesitated to make use of just such subjects to add startling or amusing features to their performances.

For that reason, if for no other, those who believed in hypnosis have for a long time been regarded as deceivers or deceived. It was occasionally less harshly supposed that any man who busied himself with hypnotism must be suffering from some loss of mental balance; which was said of some of our best-known investigators, even of

Charcot, Liébeault, Krafft-Ebing, Bernheim, etc. Less celebrated persons may console themselves that they are in good company. Accusations of deceit, credulity, or madness, are luckily not likely to be made in future.

In the first place, fraud is much rarer than is generally believed. It has been too much the habit to look for one physical symptom or another, and settle the question of fraud from its presence or absence. And yet this is exactly the opposite of what is generally done by a practitioner when he wants to diagnose a case and decide whether it is insanity or not, no authority on mental disorders would suppose fraud simply because some bodily symptom was absent. He will consider and weigh the case as a whole.

If we apply this to hypnosis, considered as a mental state, it follows that it is not safe or correct to diagnose fraud in hypnotism from the absence or presence of a certain bodily symptom. Even when each separate symptom may be simulated, the experienced experimenter will sum up the different symptoms and compare their relation to each other before he reaches a conclusion. Besides, it must be admitted that physical symptoms are more seldom found in hypnosis—transitory as it is—than in mental diseases which last for months and years.

Of course we must do our very best to discover physical symptoms in hypnosis. Many experimenters have done so, particularly Dr. Charcot. The school of Nancy also sought for objective symptoms and found them, though different from Charcot's and produced by mere suggestion, without the help of physical agents.

To exclude fraud we look for symptoms which cannot be voluntarily simulated; it is indifferent whether these are

produced by suggestion or not. Now, there are phenomena which are produced by suggestion and which are independent of the subject's will. And in these lies the chief difference between the School of La Salpêtrière and that of Nancy. The latter believe that *all* the symptoms are caused by suggestion, even those independent of the will, while the school of Charcot find physical symptoms which they affirm are independent of the will and of suggestion. In brief, bodily evidence of the existence of the hypnotic state must be forthcoming before they believe obedience to suggestion to be genuine and scientifically of value. Consequently, *suggestion* is the main point in dispute, as its use facilitates so greatly voluntary and involuntary simulation.

As a matter of fact, the question is most complicated. How are we to detect simulation in hypnotism? And how are we to distinguish between consciousness and unconsciousness—between what is voluntary and involuntary?

Simulation, which is already a stumbling-block in the study of hysterical cases, becomes far more formidable in such studies as we are now occupied with. In truth, it is only when he has to deal with physical phenomena, that the operator feels himself on firm ground.

Yet even here there is by no means certainty. As regards the hypnotic stage called "catalepsy," even the new and ingenious apparatus of modern medical science gives no absolute conclusions. We reluctantly admit that the respiration and circulation may be greatly modified by the exertion of abnormal efforts—made beforehand by a skillful simulator—such as stretching out the arms at full length for five minutes consecutively; yet that such would

be the case if the same exertion had been practised from infancy, or during a long period, is what we cannot deny. We must always make allowance for training, and recollect that story of Milo, of Crotona, the Greek athlete of antiquity, who having accustomed himself to carry a calf from its birth, carried it when it became a bullock! Although somewhat exaggerated, the story does not the less demonstrate the power of habit.

We know that many hospital patients who are subjected to the treatment of hypnotism are of very doubtful reputation; we know also the effects of a temperament which in them is peculiarly addicted to simulation, and which is exaggerated by the vicinity of patients similarly afflicted. They are often seen encouraging each other in simulation, rehearsing amongst themselves, or even before the medical students of the establishment, the experiments to which they had been subjected; and repeatedly going through their different contortions and attitudes as if on the lecture-room platform.

And then again, in the show business, has not the regular occupation of "hypnotical subject," become almost a social position? To be fed, paid, admired, exhibited in public, run after, is not all this worth learning a trick or two? Of course, these well-known facts render the most impartially disposed looker-on sceptical. But is it enough to enable us to pronounce an *a priori* negation? Certainly not; but it is sufficient to justify legitimate doubt. And when we come to moral and mental phenomena, where we have to put entire faith in the subject, the difficulty becomes still greater. Supposing the existence of suggestion and hallucination to be granted, can they be demon-

strated? Can we by plunging the subject into hypnotic sleep, feel sure of what he may affirm when in that state? Certainly not; for simulation and somnambulism are not reciprocally exclusive terms, and it has been established over and over again that a subject who sleeps may still simulate.

Moral proofs undoubtedly do exist outside of evidence of a purely physical nature, but they are of value only to him who is intimately acquainted with the patient upon whom he operates; and even then, is there not such a thing as unconscious simulation? Do we need to recall the history of Hublier, a very respectable, conscientious and painstaking platform hypnotizer, whom his somnambulist Emélie cheated for four years consecutively, and whose painful story may teach us a lesson of prudence not to be wisely neglected?

Mere observation is not sufficient, any more than mere experiment; but it may aid us in the investigation of truth, though it may not keep us absolutely in the right path. Thus the school of the Salpêtrière has demonstrated that hallucinatory vision may be modified by optical instruments, just like natural vision; that hallucination of color produces the same effects of contrasted colors as real colors; that paralysis temporarily induced by suggestion is accompanied by the same physical symptoms as that arising from regularly developed paralysis. It would certainly be attributing too much knowledge of physics and physiology to nervous or hysterical subjects to believe them capable of simulating a complicated disorder. But Drs. Binet and Féré, *a propos* of the hallucination of the supposed sight of a portrait upon a blank card, mentioned in another chap-

ter, admitted that possibly the brain took advantage of some insignificant mark to place a figure on it. And would not this mark, seen through optical instruments duplicate itself, and assume color, and make one believe that what was absent was there? This experiment has been tried successfully on wide-awake subjects; and must we conclude that it cannot be made during sleep? Most assuredly we cannot, and therefore we ought not to be too positive on that head.

Then again, may not the subject who sleeps the hypnotic sleep pretend to be asleep? At the time of the earlier experiments, his condition used to be severely tested before it was accepted that he was really asleep. But little by little these preliminary precautions were neglected; time pressed, people wanted to go ahead and make new discoveries. They contented themselves, therefore, with saying to their patient "Go to sleep," or with touching some hypnogenic point of the body. Thus, it became easy for the patient to pretend to be asleep, or he might have so strongly affirmed to himself the possession of his free will, that the pressure on the hypnogenic point might still leave him awake. Over and over again, subjects have *told* the experimenters, and *proved* to them that "they *would not* sleep, let the operators do what they liked, because they were determined not to sleep;" and that is an avowal to which we shall return, in order to demonstrate that free will still exists, the upholders of all-powerful suggestions notwithstanding.

That subjects do not simulate certain characters, simply because they do not know how, or because they find the task too hard, is what cannot be positively affirmed. Nerv-

ous subjects—among whom the majority of the “hypnotizable” are recruited—are generally quite intelligent; they talk much amongst themselves, question other subjects, and train themselves mutually. It is all very well to allege loss of memory as to accomplished facts, but that explanation is not final. A subject who is not simulating is capable, by narrating what he himself really does, of teaching another what the latter must do to imitate him perfectly. Medical students in the hospitals often make patients who write well, copy their lecture notes or their personal records of cases—a kind of instruction of which the quick-witted individuals know how to avail themselves.

If the subject pretends to see, when he sees nothing, the fraud may be exposed by physical apparatus.

What we have still to learn is whether simulation on the part of a subject susceptible of suggestion cannot do all that suggestion itself does. We know that certain persons, in a waking state, can summon up the apparition of any color they please; and this application of the will has even been considered to indicate a susceptibility to hypnotism. Between the apparition of the imaginary appearance *willed*, and the imaginary appearance *suggested*, there is only a difference of time.

Temporary paralysis, produced by suggestion, can be put an end to by the patient himself; five minutes of voluntary effort will suffice to put in motion the paralyzed member. There is nothing astonishing, therefore, in the reverse of the phenomenon, or in the fact that the hypnotized or hypnotizable subject should be able to paralyze himself. On examining the interior of the eye of hypnotized subjects, it has frequently been found that there existed there-

in an excess of blood. Repeated experiments have not told us yet whether this excess of blood can thus be voluntarily localized.

So much then for *conscious simulation*. With regard to *unconscious simulation*, it arises from the desire of both the subject and the operator to make their experiments succeed. The subject expects a phenomenon, which comes self-suggested. Moreover, we must take into account the overstrain of his senses, or rather of the particular sense appealed to at the time, which makes him as it were hear the thoughts of the hypnotizer; and hence arises the idea of *unconscious* or *mental suggestion*. We shall have occasion to treat of mental suggestion at length.

In physiology, scientists are almost all agreed as to the existence in every member of the human race of two separate beings: one *conscious*, and subject to the will; the other *unconscious*, and acting independently of us. To avoid the use of dry technicalities, let us illustrate the idea by means of a few examples in every-day life.

Certain persons have the faculty of awaking exactly at the hour they wish. Evidently, it cannot be their conscious existence, buried in sleep, which tells them the hour.

We are walking, or turning over the leaves of a book, thinking of something else. A clock strikes near us; our attention not being directed to it, we do not hear it, and then, a few minutes after, the consciousness of that clock striking re-appears.

With hysterical persons, the unconsciousness is always active. Thus, if the hand of a hysterical person be made insensible, by suggestion or by manipulation, and then hid behind a screen, and touched several times, and the per-



Unstable Equilibrium During Catalepsy.

son be asked to think of some number, the answer will give the number of touches of the hand.

Again, if a hysterical female be hypnotized, and signals signifying *yes* or *no* be agreed upon previously, communication can be held with the unconscious subject. In fact, if the insensible parts be pricked and the patient herself be interrogated as to her sensations, she will affirm that she does not suffer, but her unconscious part will protest against this by means of the signals agreed upon.

Many of the leading experimenters protest against the manner in which some operators conduct their tests. Thus:

"Over and over again," they say," we have heard operators 'talk' before their subjects—hysterical or hypnotized persons—and thus plainly indicate to them the different phenomena through which they are expected to pass. And this is often the origin of petty personal schools of this or that operator, founded upon phenomena which have no real peculiarities, or any other basis than the imprudence and simplicity of men who really believe that their patients do not hear their prating.

"And it is quite true that, amongst these patients, the 'conscious personality,' rendered profoundly insensible, hears absolutely nothing; but the 'unconscious personality' loses not a word of what passes. Above all, this latter personality registers with the greatest assiduity the smallest traces it can lay hold of, and it is exactly it which will by-and-bye prompt the action of the former, and so again make it believe in perfect good faith that it is inspired and endowed with a veritable gift of divination."

Nor is this all. Apart from what is expressed by lan-

guage, there are gestures, unconscious movements, expressions of physiognomy which the patient also seizes upon and registers.

At the Hypnotic Congress of 1889, Dr. Bourdon, speaking of a female patient of superior intelligence who had been put to sleep by him, said:

"I asked her: 'What am I thinking of?' 'Such and such a thing,' she replied, 'I *heard* you thinking of it;' and it was true."

Some time after, Rousseau wrote that "it was easy to explain *pseudo-mental* suggestion. We cannot think," he says, "without the larynx speaking; in dumb fashion, indeed, but still speaking. Now the power of the senses is carried to its highest point in a state of somnambulistic hypnosis. The slightest breath upon the skin, the least possible noise, the faintest impression, is felt and perceived even at some distance. We may conclude from this that the ear of the somnambulist does catch the vibratory movements of the larynx of the hypnotizer, who thinks he does not speak, but who does speak as far as the subject is concerned, that these extraordinary phenomena of mental or *pseudo-mental* suggestion are to be considered as mere phenomena of super-acute audition."

Without being so positive in the negation of mental suggestion, we quite agree on the fundamental question of the existence of unconscious communication proceeding from the operator and rendering more difficult the solution of the problem of simulation. For that such influences exist, without being either intended or perceived by him who produces them, is undeniable.'

Years ago, all fashionable Paris went into ecstasies

over the experiments of Cumberland. This expert conjurer used to take the hand of an individual who had either hid or thought of some object, and then he would go straight to the object in question. More recently the Russian, Onofroff, used to give a similar performance in a hall on one of the Paris Boulevards; but he dressed up the spectacle a little. An imaginary assassination was supposed to be perpetrated at a distance from him; the victim and the criminal were designated, and the murderer's weapon was hid. Then a person who was a supposed witness of all these facts took, by the hand, Onofroff, whose eyes were closely bandaged, and who, although in total ignorance of the facts in the case, related all that had happened. It was necessary, however, for the so-called witness to the dramatic events to "fix his thoughts," otherwise the thread failed which allowed the conjurer to succeed in his experiment. Drs. Richet and Gley solved this physical enigma with great success, by demonstrating that during the whole of the experiment, fibrillous contractions and slight pressures took place in the hand of the subject, and in some cases a sort of traction of the hand and of the whole arm. These movements increased in intensity when the object sought was approached, but ceased immediately in presence of it. From 25 persons with whom similar experiments were attempted, 16 proved strong positive results. In reality, according to Drs. Binet and Féré, there does not seem to exist—in these cases—any communication by thought, but only by signs which the subject gets hold of with an acuteness of perception really marvellous.

Nor is it man alone who is capable of being guided by

these almost imperceptible influences. The same thing happens with certain animals; and the authority of the naturalist Houzeau is quoted for the existence of this faculty. It often happened to him, when on horseback, to intend to stop at some place, and then to forget; and yet the horse stopped there. He had unconsciously imparted his *will* to his horse.

Insensibility to pain has often been cited as a criterion of hypnotic sleep. But it is far from infallible. Without being hypnotized in the least, many hysterical persons are affected, as a sort of characteristic of their peculiar trouble, with insensibility of the whole or one side of the body; a phenomenon which magnets or other agents, as also, probably, the will or imagination of the subject, are capable of transferring from one side to the other.

In perfectly healthy persons, will-power is often sufficiently strong to prevent such a symptom as pain to make itself apparent, though pain is actually suffered. A certain D'Avilly, nicknamed "the Parisian Aïssaoua," used to impart to his body the rigidity of a corpse, and run pins through his arm while he was addressing the public in a steady voice and with a smile on his face; and he acknowledged that he never lost consciousness of pain.

If we turn our attention to the Aïssaouas and the Hindoos, we shall find from their example that, as regards pain, it is possible, if not absolutely to suppress it, at least to endure it without any manifestation.

These *Aïssaouas* or serpent-charmers, whom we had occasion to mention in our Chapter on Hypnotism in Animals, constitute a powerful religious sect in Morocco. Louis Jacolliot has told us the marvellous phenomena they

exhibit; and Lord Curzon, now Governor-General of British India, mentioned in the *Fortnightly Review* those of Kairouan, as did also the late French Senator Bert those in Algeria. Moreover, every one had the opportunity of witnessing these latter experiences at the Universal Exhibitions of Paris, 1889, and Chicago, 1893. The Aïssaouas bring on themselves a sort of delirium (or auto-hypnotism) by dances, by the monotonous chanting of special litanies, and by inhaling peculiar perfumes. At first they all sit round, looking grave and with a look of thorough conviction. Then each Aïssaoua comes forward and performs in his turn; then after a wild dance, they all howl and the music ceases. At this moment, it seems as if each participant in this weird ceremony was filled to the brim with a sort of supernatural inspiration, and felt ready to dare and accomplish anything.

One of them might be seen eating the thorny, leathery leaves of the cactus; another piercing his cheeks, tongue, neck and arms, with long, thick, iron needles attached to heavy balls; another would greedily devour scorpions and live snakes; another would crack with his teeth, apparently with great gusto, sharp fragments of glass; a head man of the tribe licked a red-hot shovel and forced his eye out of the socket;—and all this was repeated over and over again.

The Aïssaoua will tear and lacerate his skin almost without making the blood run, and while thus torturing himself he will leap, bound, howl, and then embrace his companions on the forehead and sit down gravely.

He will let his abdomen be pierced with long nails driven in with a mallet by one of his co-religionists; and not

content with crunching glass with his jaws and devouring it, he will swallow whole pebbles, devour living vipers, or make them bite him with undisguised satisfaction.

If we may believe Jacolliot, the celebrated author already quoted and, for years, a high magistrate in the French-Hindoo colony of Chandernagor, all this is nothing but child's play compared to the feats he was the witness of. In his *Voyage aux pays des perles*, he relates how hundreds of fakirs at the feast of the god Siva, throw themselves under the wheels of his car and delight in being ground beneath the divine equipage. Some go all the way to the Ganges, the sacred river, measuring the distance by their body as they go; others make the same journey on their hands and knees, or jump the whole way with their feet tied together; some, again, only eat and drink once in three days, all through the journey.

The fakirs support the most horrible torments without flinching. They lie down on planks with nails stuck through them; they fasten themselves with iron hooks to a wheel that turns round; they sew up their lips; some, by clasping their hands for years, have fastened them together by the nails growing into the flesh.

Was not the Greek philosopher justified when he declared pain to be "only an expression?" And what are we to think after this of that so-called "infallible criterion" of hypnosis consisting in absolute insensibility to pain, the scientific name for which is *anesthesia*?*

If the reaction of our moral self over our physical self, if the action of our will-power over mechanical structure,

* *Anesthesia* from the Greek words "aisthesia," feeling, and "an," indicating the absence of.



A Self-Hypnotized Hindoo "Saint."

can be so absolute, how are we to distinguish with any degree of certainty, the subject that sleeps the hypnotic sleep from one that just simulates that sleep?

To sum up, the result of this exposition of the difficulties which beset the inquirer when he desires to eliminate all causes of error from his experiments is that it is almost impossible to reach such a result. The two psychic elements that make up one being, the *conscious* and the *unconscious*, are so blended together as to often render hypnotic tests far from satisfactory. The most extreme prudence, therefore, is necessary in making affirmations, for these can have no irrefutable grounds to stand upon. For the present let us admit frankly that there is no absolute criterion for the unreserved admission of the state of hypnosis, especially in the lighter stages which we have designated, with Charcot and Luys, as "Somnambulism" and "Intermediate period."

This saving clause duly inserted in our statements, let us now ask ourselves, *what symptoms should help us to practically decide the question of fraud?*

In the first place we must notice how the eyes close, and how the subject tries to open them. This closing of the eyes is difficult to describe. The gradual falling of the lids is peculiar, and so is the action of the muscles of the forehead when opening the eyes after hypnotic sleep, as well as the convulsive rolling upwards of the eyeballs which is often noticed.

In cases where the eyes stay open their expression is most important. The look is often blank and meaningless, the mask-like expression and the attitude of the subject are often characteristic also. He moves his limbs slowly

and heavily when commanded. And yet, in certain cases, particularly in light hypnosis, these symptoms are wanting, and the movements in especial are quick and lively. The expression during sense delusions is also very typical. Every one realizes how difficult it is to place oneself in an imaginary situation so that the expression, the attitude, and the actions should correspond to the idea. This is the great art of actors, and we all know how seldom an actor is able to represent a scene by the mere exertion of his own will; but it is still more difficult to change the mood in a moment, and pass from one situation to another in a few seconds. It is extremely hard for a person awake, but the hypnotic subject does it easily. The expression of pain, the smiles, the chattering of teeth and the shivering at different suggestions of pain, pleasure, cold, etc., would be no easy task for the supposed impostor.

The waking in many cases is just as characteristic; the astonished face with which the subject looks round, as if to find out where he is. His behavior in post-hypnotic suggestion is likewise important.

The impostor generally exaggerates, like a person pretending madness. He usually accepts all suggestions very quickly, while the experienced experimenter knows that susceptibility to suggestion increases with a gradual uniformity. It is very easy to simulate insensibility to slight feelings of pain, but a sharp, unexpected pain in the waking state causes the usual reflexes in the face and eyes, and yet the impostor will declare that he felt no pain. It is the same with sense delusions, where the suggestion generally requires to be emphasized before it takes effect upon the

truly hypnotized subject. The impostor usually exaggerates here also.

Let us now consider certain objective symptoms which are particularly characteristic. Charcot laid great stress on the curves of the muscular contraction and respiration in the *cataleptic stage* as traced by special instruments devised for that purpose. Charcot admitted there is no essential difference in the duration; a cataleptic person cannot hold up his arm longer than an impostor. But when the curve-tracings from the raised arm and the respiration are examined, an important difference is immediately detected. The impostor shows that he is tired by irregularities in the arm and respiration curves; the hypnotic subject, on the contrary breathes calmly and evenly from beginning to end, and there is no perceptible trembling in his arm.

We may add that cataleptic postures are frequently maintained a very long time, and therefore offer an objective proof of great value.

There exists also an increased neuro-muscular* irritability as a particular characteristic of the stage called "lethargic." It cannot for a moment be supposed that a person can thus bring single muscles, and also groups of muscles supplied by single nerves, in contraction. Charcot did not think that the contractions induced by stimulation of the skin in the somnambulic state are of much value, and in fact they might easily be simulated.

On account of their practical importance we shall speak of other symptoms which, according to experience, are

* Neuro-muscular relates to the "nerves that act upon the muscles of the body."

often wrongly considered by outsiders as proofs of fraud.

First, the laughter of hypnotic subjects. Of course many subjects laugh, just as a waking man does. In the light stages (somnambulism or fascination) the subject is quite aware that he is playing a somewhat absurd part, when, for instance, he makes all the movements of eating an apple, and feels compelled to make them, but knows quite well that he looks rather ridiculous; therefore it is not odd that he should laugh. But there is often a trace of consciousness even in well established hypnosis; the subject separates himself, so to speak, into two parts, one of which acts the suggested part and the other observes it and laughs.

It frequently happens that a perfectly reliable subject makes movements unforeseen by the experimenter, and which seem to prove the existence of the waking stage. A subject's arm is stretched and he is told that he cannot move it. It remains as placed. But now a fly settles on the subject's forehead and he moves his arm at once to rub the place. Rubbing when one is tickled has become a habitual, rapid, unconscious act. So that if the first suggestion has lost some of its powers, the new impulse causes a change of posture. People will put their hands to their faces when they sneeze, as we habitually do, though the hands had previously been made motionless by suggestion. Besides, many movements which have been prevented by suggestion become possible when the subject does not think of the suggestion; if he is forbidden to say "a," he can use it unconsciously; he only cannot say it when he thinks about it.

There are many phenomena of this kind. An operator

says to the subject, "You are a rope-dancer, and are on the rope." He believes it, and when the rope is said to be cut, he falls down; but he falls so as not to hurt himself. This is caused by a normal, mechanical, nearly unconscious process which is always going on in us. We always use our hands to shield ourselves when we fall. This habitual mechanism works on in hypnosis regardless of the suggestion. Hysterical paralytics for this reason seldom hurt themselves when they fall. A subject was told that he was dead; he fell without hurting himself.

An impostor will often open his eyes when he thinks he is not observed; the hypnotic subject does it whether he thinks he is observed or not. There are, also, certain sense delusions in which a dim dream-consciousness persists, which prevents the full effect of the delusion. In such cases fraud is wrongfully suspected.

Further, a complicated suggestion may be misunderstood or half-forgotten, in which case it will be carried out imperfectly. A post-hypnotic suggestion can naturally only be fulfilled when it is remembered. As memory is the first condition for the success of a suggestion, a person with a good memory, all other circumstances being the same, will execute a suggestion better than another. If the post-hypnotic suggestion is badly remembered, it will be badly carried out, as the memory only acts in a natural way. We mention this though it seems a matter of course, because we have heard the existence of hypnosis doubted, on account of such mistakes.

Finally, a subject will sometimes confess to imposition, or to having acted to please others. Such a confession must be judged with caution. Many who have made

hypnotic experiments have observed that subjects will often say after the hypnosis that they have been pretending, though their actions were really compulsory; they think they show weakness of will by allowing themselves to be hypnotized, and perfectly consciously they tell untruths. Others think they could have acted otherwise if they had pleased; here is a case of this kind: A doctor said, after the hypnosis, that he could have opened his eyes if he had pleased; but when the hypnosis was renewed he could no more help himself than the first time.

All this makes it evident how difficult it is to decide the question with regard to fraud. Specialists insist that it occurs more often with children, more for the sake of fun than to really deceive, but in their case the transition from simulation to true hypnosis is often so gradual that even an experienced experimenter is sometimes uncertain. For example, when a subject shuts his eyes to be obliging, it is not the same thing as if he shut them to deceive; or if he shuts them because he is tired of fixing them on something, but could open them by a strong effort, though he keeps them shut because it is more comfortable. It would be a great mistake to identify this with simulation, for the wish to deceive is absent. And there is another complication; for people actually in the hypnotic state frequently pretend, just as it is known insane persons do. Thus a hypnotic will say he sees something when he does not. It is naturally very difficult to say where deceit begins and ends in such a case; as a matter of fact, practice, long, persistent, intelligent, will be needed before we may attempt to judge the mental state of the subject with some certainty.

PART III.
PRACTICAL
General Instructions

CHAPTER I.

WHO CAN HYPNOTIZE? WHO IS HYPNOTIZABLE?

We reach now the practical side of the study of Hypnotism—the one that evidently contains the most interest for the general public, and especially for those who may wish to experiment in this line. In another chapter, we bestow our attention upon the danger that does exist in the imprudent, sometimes wild attempts to produce hypnotic sleep when all the conditions of the subject's general health, etc., have not been understood, and when the operator lacks sufficient knowledge of the phenomena, and the indispensable self-possession needed in case of unexpected complications. We cannot insist too strongly upon the importance of these warnings, and do so now, before placing in the reader's hand the key to this curious realm of apparently unexplainable manifestations.

The first point to be settled when entering this part of our study is evidently the following:

Who can hypnotize?

And to this question, we answer, unhesitatingly:

Everybody can hypnotize, as the hypnotic capacity does

not emanate from the operator, but is inherent in the hypnotized subject himself. We shall ask ourselves, farther on, whether or not, certain personalities, physically and mentally strong, do not exert upon weaker individualities a peculiar influence, akin to the hypnotic power. But this is only to be considered as an exception to the general principle above stated, and which has the approval of the immense majority of the scientists conversant with the subject.

Of course, "everybody," in this case, means everyone endowed with a clear brain, a somewhat energetic nature and a natural commanding instinct. We must not forget that hypnotism is greatly facilitated, especially in the earlier sittings, by a thorough belief in the operator's statements, and—in case hypnotism is used for a curative purpose—by a complete trust in his power to do good. As stated in our preceding chapters, Imagination, Credulity and Expectation have to be "tuned up" so to speak to the point where everything unites to help develop the hypnotic condition. To bring about such a combination and to do it with an average degree of success is not given to everybody; so, that, as a matter of fact, some restriction ought to be placed upon the statement heading this paragraph. Leaving aside all idea of the projecting of the magnetic fluid, we must admit that there is a certain degree of mental influence needed to constitute a perfect hypnotizer; but a majority of our fellow-beings can acquire by patient practice this slight amount of power, if it is not inborn in them.

The second question in order,

Who is hypnotizable?

is far from being as easy to answer. Let us run over the various conditions of sex, age, health, general appearance that may serve as guides when attempting to induce a hypnotic condition in individuals who never before submitted to such experiments.

Dr. Luys declares that the female sex is the more easily hypnotized of the two. Young men, especially those affected with epilepsy, morphinomania, paralysis, also submit to the same influence. In fact there are a great many more possible male subjects, between the age of 18 and 30, than we have any idea of. We meet in every day life hundreds of young men, apparently in sound physical and mental health, who bear within themselves a center of nervous disturbance which would render them easily affected by hypnotic methods, if fortuitously placed under their influence. It is therefore a mistake to consider the fair sex as having almost a monopoly of the phenomena we are now studying.

We just mentioned what might be called "the susceptible age." Yet, Liébeault induced the somnambulistic stage in little children, and there are very numerous cases of proved hypnosis in subjects of 40, 50 and even older. But, the consensus of medical opinion is that outside of the age-limit laid down above (18 to 30), the hypnotic phenomena are not likely to occur, unless the subject has inherited (in case of small children), or developed in late years, some nervous disorder, thus furnishing a prepared ground for the induction of hypnosis. We have repeatedly mentioned the fact that strong, healthy men and women, in the maturity of age and physical develop-

ment, have proved excellent subjects for hypnotic experiments. There is only an apparent—not a real—contradiction between this statement and our present affirmation. In both cases, we consider that some nervous blemish or taint exists in the most brilliantly healthy individual and explains his succumbing to the hypnotic influence. It may have been concealed to all—the subject included—and yet it lurks within, and the hypnotic phenomena are sufficient evidence of its existence.

Charcot and Luys never failed to insist upon *heredity* when giving a lucid explanation of the predisposition to hypnosis. In the majority of cases, when the ancestry of the subject could be investigated, some proof of serious nervous disorder, due perhaps to alcoholism, or sexual depravation, or epilepsy, or hysteria, or downright insanity, was found to have existed in one or more of the parents or grandparents. And yet, as will be explained further, an ultra-nervous or extremely hysterical temperament is not easily hypnotizable, while but very few insanes can be brought under the influence of hypnosis.

With regard to the degree of intelligence, it may be said that intelligent persons are more easily hypnotizable than the dull and stupid. Among the uneducated classes the mentally superior are undoubtedly easier to hypnotize than others. Mental over-excitement easily prevents hypnosis. That certain individuals are occasionally refractory to hypnosis, may be connected with this fact. It is a mistake to say that the disposition to hypnosis is a sign of weakness of will. Without doubt the ability to maintain a passive state has a predisposing effect. The ability to direct one's thoughts in any particular direction

is also very favorable; it is partly natural capacity, partly a matter of habit, and often an affair of will. Those, on the contrary, who can by no possibility fix their attention, who suffer from continual absence of mind, can hardly be hypnotized at all; this explains what we stated above concerning the insane, in whom a perpetual wandering of the mind, predominates.

Race or *nationality* has no influence upon susceptibility to hypnotism. Teutonic and Anglo-Saxon people are as easy to hypnotize as Latin. Wetterstrand only failed to hypnotize eighteen people out of 718 in Stockholm. Besides, Braid's experiences in England show nearly the same proportion. Recently it has been pointed out in many quarters that Russians are more easily hypnotized than any other people. In any case it may be considered settled that susceptibility to hypnotism is not a peculiar privilege of the Latin races—generally supposed to be the most emotional of European nations.

Besides this, individual observers mention some points which are supposed to be favorable or unfavorable to the inducing of hypnosis. Brémaud mentions alcohol as favorable; Maack insists that it is unfavorable. But universal conclusions should not be drawn from a few observations, as so doing will not contribute to any clear understanding. According to Dr. Ringier, hypnotism is less easily practised in winter than in summer, because cold is supposed to be unfavorable; thus persons who were easily hypnotized in summer became refractory in winter.

The frequency with which an attempt should be repeated on the same person is of more importance. While

only one person in ten proves susceptible on a first attempt, the proportion increases enormously with the frequency of the sittings. This is not to be wondered at, from the mental excitement shown by many people in the beginning. And as it is most important to hypnosis that the attention should not be distracted, many people are first of all obliged to learn how to concentrate their thoughts. There are even experimenters who maintain that everybody is hypnotizable, if only the attempt is continued long enough. Without declaring this view to be false, Dr. Moll remarks that he has made forty or more attempts with some persons without obtaining hypnosis. It may be somewhat the same as with the grand prize at the lottery. According to probabilities everybody would win once, if they could only live and play long enough.

Besides these main conditions of success, there are some minor ones that belong properly to the chapter devoted to How to Hypnotize. But the principles being of a general character may just as well be presented here. Their application simply increases the percentage of hypnotizable people.

Thus, for example, disturbing noises at the first experiment are pretty sure to result in preventing hypnosis; they draw off the attention, and thus interfere with the mental state necessary for success. Later, when the subject has learnt to concentrate his thoughts, noises are less disturbing. But in hypnotic experiments the most absolute avoidance by those present of any sign of mistrust is necessary. The least word or gesture may thwart the attempt to hypnotize. As the mood of a large company is often distrustful, as the fashion, in fact, is to display a

kind of sneering skepticism, the great variations in susceptibility to hypnosis which have shown themselves at different times and places are only too natural. The mere existence or absence of a general belief in hypnotism, among a large audience, will permit of ten persons, on one occasion being hypnotized one after the other, while on a different occasion, and with a differently inclined public, ten other persons all prove refractory.

Before closing this introductory chapter to the Practice of Hypnotism, let us return to the Hypnotizer, with a few more words of advice.

Experience and a knowledge of the mental conditions of mankind are indispensable for the operator. The first is infinitely more important than a knowledge of anatomy and physiology. By experience, one learns to enter into the particular type and character of the subject. Practice and a gift for observation enable the right stress to be laid at the right moment. The experienced experimenter knows whether it is best, in any particular case, to attain his aim by speaking or whether, as sometimes happens, speech would be a hindrance, and the chief stress would be best laid on physical agents, fixed attention, etc. As stated before, a person who is easily hypnotized can be placed under the spell by any one; but one who is hypnotized with difficulty can be thrown into hypnosis only by a good and experienced experimenter.

It is by no means a contradiction of this that the personal impression made by the experimenter may be very important and have great influence.* In consequence, it

*Here, again, we leave entirely aside any Mesmeric influence or fluid. We give a special chapter to this peculiar power and its mode of action.

happens that a certain person A. can be hypnotized by B., while he remains refractory to the efforts of C. On the other hand, it may happen that D. can be hypnotized by C. but not by B. This shows that the influence of one person over another is dependent on the individuality of both. Do we not meet with the same thing in life, in the relation of teacher to pupil, and of pupil to teacher, in the reciprocal relations of friends, or lovers, etc.

There is no use denying that there exists an individual aptitude for hypnotization, and for making the suggestions which will be discussed later. We must not think of this ability as did the older mesmerists, who supposed that certain persons exercised a peculiar physical force upon others; but self-possession, presence of mind, and patience are essential, and not every one is the lucky possessor of these qualities. The simple feat of busying oneself with hypnotizing a subject daily for hours at a time demands a perseverance which everybody does not possess.

We reach now the much mooted question of *hypnosis induced against the wish of the subject*. We must distinguish here whether or not the subject complies with the prescribed conditions. If he does; if, for example, he sufficiently concentrates his attention; if he gazes at some object with the necessary attention, then hypnosis may be produced at the first attempt, even against the wish of the person experimented on. But a person who declines to have himself hypnotized will hardly accept to enter the necessary mental state. He will not generally fulfil the conditions; if he consents to fix his eyes, he will allow his attention to wander. However, we may assert that

certain persons trained to obedience, in a general way, can be hypnotized even against their will, and without the ordinary necessary straining of the attention, if only they are told that hypnosis will occur. Their "Expectation" will domineer over their unwillingness. But such cases are extremely rare. However there is no doubt that many people who have been frequently hypnotized can be re-hypnotized against their will and even without their compliance with the ordinary conditions. Heidenhain hypnotized soldiers in the presence of their officers, who had strictly forbidden them to go to sleep. Such a command would have as much effect on the average soldier as the personal wish not to sleep. Post-hypnotic suggestion, to which we devote a special chapter, is also a means of sending persons into hypnosis against their wish.

There is a third possibility, namely, that no wish should exist in either direction. The conditions necessary for hypnosis may occur by chance, without the subject being conscious of them. For example, some one over his work is obliged to look fixedly at a certain point; this suffices to induce hypnosis without the person thinking of it. Persons being photographed sometimes remain sitting rigidly still—hypnotized in fact—after the taking of the photograph is finished. Some of the inmates of the Salpêtrière in Paris used to fall suddenly into catalepsy in consequence of a loud unexpected noise. There is an interesting case of a girl who had often been hypnotized by loud noises, and who went to a drawer to appropriate some photographs out of it. The casual beating of a gong threw her into a cataleptic state, so that she stood

motionless in the act of carrying out her theft, and was discovered. It is a pity all thieves cannot be taken as easily.

On the other hand, if previous consent is not absolutely necessary to the production of hypnosis, there are people who prove refractory in spite of a decided wish to be hypnotized. In general, however, the intentional resistance of the subject hinders hypnosis, simply because a person willing to be hypnotized complies more easily with the necessary conditions than another. Consequently it is not astonishing that patients who come to an operator on purpose to be hypnotized, particularly when they come with full confidence, are more easily conquered than others. These others often allow an attempt to be made with them, with silent resolution to show that "they are not to be caught," or they submit themselves "only for fun," and yet many believe that susceptibility to hypnosis is a sign of defective will or intelligence!

Under the various circumstances herein enumerated, it is not surprising that the proportion of hypnotizable persons should be differently stated. If Ewald in the Women's Hospital at Berlin can only hypnotize two persons, while Liébeault at Nancy hypnotizes 92 per cent. of his patients, the reason of this enormous difference must lie in the different nature of the conditions. The insufficient mental preparation of Ewald's subjects is particularly to blame for his failure. Bottery gives 30 per cent. as susceptible, Morselli 70 per cent., Delboeuf over 80 per cent., and this most conscientious experimenter excludes simulators with the greatest care, and is, perhaps,

in this respect more skeptical than the investigators at Nancy. Bernheim refuses the right to judge of hypnotism to all hospital doctors who cannot hypnotize at least 80 per cent. of their patients; Forel, of Neufchatel, fully agrees with him.

Of course, the oftener hypnotic experiments are made on a subject the sooner hypnosis is induced. The first attempt often takes five minutes or more, although on many occasions a few seconds suffice. When the experiment has succeeded a few times, it takes but a moment to bring about further hypnoses. The strongest hindrance has been overcome by the earlier hypnosis—which is the belief of the subject that he is not hypnotizable, or that he can only be hypnotized by certain persons. The undaunted assurance with which well-known operators hypnotize people, rests partly on the fact that the subjects they take in hand believe they can be hypnotized by this celebrated hypnotizer and not by another. Let us add that the disposition to hypnosis may also disappear when the experiments have been discontinued for a long time.

CHAPTER II.

HOW TO INDUCE THE HYPNOTIC STATE

Those of our readers, who have carefully perused the preceding chapters, will easily understand the importance of the general instructions which are now to precede detailed descriptions of the various methods for inducing hypnosis.

First of all, they will remember how essential it is to secure the confidence of the subject to be experimented with. A full trust in the hypnotizer is half the battle won. The second desideratum consists of an honest desire, on the part of the subject, to succeed in attaining the hypnotic condition.

Quiet surroundings and a comfortable position are next in order. The subject must be seated in an easy chair, in an attitude of pleasant repose, and be ready to obey the hypnotizer's orders. Of course, all these conditions are much more indispensable when the subject is being treated for the first time. Later on, and the faith in his hypnotizability having been firmly established in the subject's mind, it will be much easier to induce the desired state, be it merely "somnambulism," or the intermediate stage called "fascination," or one of the two forms of greater, or deeper hypnosis—"catalepsy" and "lethargy."

But let us return to the subject who is being experimented on for the first time. To bring about hypnosis,

three distinct systems are in presence, each of them, in our opinion, of some distinct practical value and therefore deserving a full mention in this volume; they are:

The Charcot, or Salpêtrière system, which calls for the use of *physical agents*, such as brilliant surfaces, pressure on the eye-balls or other "hypnogenic" points of the body, the magnet, electricity, etc.

The Liébeault or Nancy system, which considers *mental agency* as the sole cause of hypnosis, and therefore fully sufficient to induce it in all hypnotizable subjects.

Finally, the system of the old mesmerists or magnetizers; their successors still cling to the more or less exploded idea of the *transference of a mysterious fluid*—the giver of life—from certain, especially endued, individuals—and from them only—to weaker, receptively organized beings, who become, for the time being, the very slaves of the all-powerful magnetizer. We spoke of a growing belief in such a fluid—Colonel de Rochas called it the "Od"—but we are not ready to admit that it is set in motion only by particularly gifted men or women. However we devote a chapter to this method of inducing hypnosis.

Before entering into the desired details concerning each of these systems and their practical mode of operation, let us add that all of them ought to be used in succession, and with unflinching patience before the operator shall admit that the subject in hand is "not hypnotizable." As stated in a preceding chapter, the most renowned physicians engaged in the regular practice of hypnotism for curative purposes have repeatedly asserted that methods they had but little, if any, belief in, had sometimes proved

the only ones giving results with certain patients. This declaration encourages us in accepting as a rule of action in the matter, what might be justly called a wide "eclecticism,"* and in so doing, the experimenters who may take this book as a guide, will follow in the footsteps of no less a man than Dr. J. Luys, the founder of the School of the Charité Hospital, whose detailed and systematic analysis of the Symptoms of Hypnosis we studied so closely in the second part of the present work. He never admitted that any artificial rule of action should stand in the way of the success of his continuous experiments. He used, and even improved upon, the *physical agents*, as inducers of hypnosis; he accepted and practiced the *mental methods*, and admitted the possibility of the personal influence of certain human beings over others—the basic *doctrine of the mesmerizers*. With such an illustrious example before us, we need not restrict our experiments in any way, provided we never neglect the broad measure of circumspection which must preside over researches, so delicate in their nature and so easily dangerous to body and mind if recklessly conducted. We shall have occasion to recur to this grave subject of "the dangers of Hypnotism" when treating of the curative possibilities of hypnosis.

1. By the Use of "Physical Agents."

A. The Braid method.—The subject having been settled in a comfortable position, etc., we place between his eyes, just a little above the root of the nose and close to the forehead some brilliant surface—the inside of a watch case will do very well. We may add a few words in a low voice inviting him to go to sleep, gradually per-

* Means: Blending of several methods based on different principles.

suading him that he is falling asleep. The same words had better be used repeatedly, as the monotone of the voice will act on the auditive nerves as the brilliant surface does on the optic nerves. They both determine a kind of weariness which is the natural preface of sleep.

It is probable that, if the subject is only moderately hypnotizable, the sleep that will occur after a few minutes' patient waiting, will be nothing more than a normal doze, and have none of the characteristics of hypnosis. But such a result would be satisfactory for a first sitting, especially as it will create confidence in the subject and remove whatever prejudice or awe he may have harbored against hypnotism. The next time, expectation and trust will be your best assistants in bringing about another spell of drowsiness, probably deeper this time and more akin to induced somnambulism.

We refer you to our Theoretical Part for the symptoms that will reveal to you the moment when hypnosis has taken the place of natural sleep.

B. The Charcot method.—There were many modes of operation experimented with at the Salpêtrière. They all appealed to what is called scientifically the *Sense Stimuli*, which means that attempts were made to obtain hypnosis through one of the five senses: sight, hearing, touch, taste, smell. As a rule the first three seem to be the only ones to which the operator can appeal to obtain admittance within this mysterious realm of hypnotic slumber.

The sense of sight was stimulated by the simple use of brilliant surfaces. No attempt was made to strain the optic nerve by forcing the subject to squint painfully. On the contrary, the shining object was placed within the

habitual radius of vision. The Charcot operators spoke very little, if at all, to their subjects, as if disdaining anything that might be called suggestion. Of course they announced their purpose and made the patients aware of what was expected of them. The subjects they experimented upon belonged, in great majority, to the inmates of the "Nervous Diseases" Department of this huge Hospital of the Salpêtrière, which houses over 4,000 female patients and attendants. Therefore, a certain predisposition to hypnosis existed in many of the persons submitted to the experiments. This increased the percentage, not only of the truly hypnotizable, but of the simulators as well. We had occasion to explain the peculiar epidemic of simulation to be found in female wards of the institutions devoted to the treatment of nervous troubles.

The sense of hearing was also frequently appealed to. The sound of the human voice, muffled and monotonous, tends to create a sleepy feeling. The buzzer of an electrical machine, the beating of a Chinese gong, the tolling of a deep-toned bell have been known to induce hypnosis. The use of these different means have proved very helpful with, or even without, the *stimulus* of the sense of sight.

The sense of touch is next in order. A pressure on certain parts of the body—very frequently the eye-balls—has helped considerably the induction of hypnosis. Particular spots or zones, on the human epiderm (upper skin) have also been discovered to be especially *hypnogenic*,* or inducing the hypnotic condition.

* From the greek words *upnos*, sleep, and *genesis*, creating.

Among these parts of the body, the crown of the head, the root of the nose, the thumb, the elbow, are particularly sensitive. Often a gentle scratching of the skin of the neck induces hypnosis. Many persons maintain that they become hypnotized only when the operator touches their foreheads. In order to hasten the coming of the hypnotic state other parts of the body might be gently stimulated—the head, or soles of the feet, for example. Charcot affirms that pressure on the cervical vertebrae* induces hypnosis.

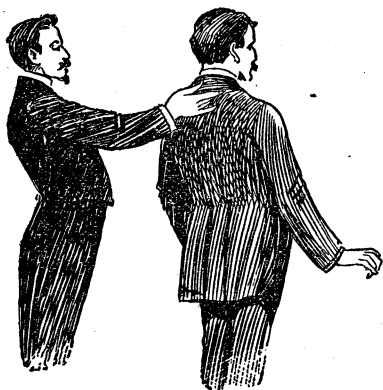
Sometimes the sense of touch is appealed to in a much more vigorous manner, and through a manipulation of certain muscles, creating a real fatigue. Something of the kind we will now describe under the name of

C. *The Moutin method*, not because it is absolutely original with M. Louis Moutin, the popular French lecturer and demonstrator, but because his explanation of it is more complete and easy to follow than any we have found in other works on the subject. However, we accept his method—so universally successful—but not his theory, which is, in many respects, out of date. We will now translate literally the operator's own words:

Preliminaries—"To discover whether the subject under examination is apt to receive the hypnotic influence, I apply one of my hands, with a notable amount of pressure, between his shoulder-blades, at the base of the neck, and I ask him to tell me his sensations as they occur. If, after three or four minutes, he tells me that he notices a certain heat at the spot my hand is pressing, I transfer the pressure to both shoulder-blades, allowing

* The upper bones of the backbone, the bones of the neck.

my fingers to quiver slightly. In all hypnotizable subjects, this method rapidly brings about an almost unbearable heat. The subjects who feel but a slight degree of warmth would need more time, and probably several



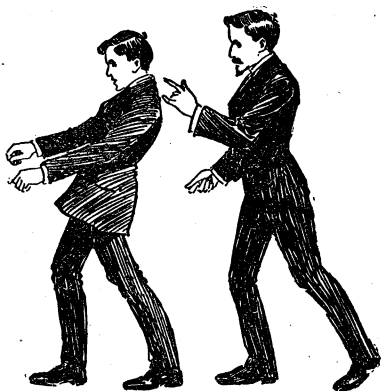
PRELIMINARY PASSES.

sittings, before reaching the hypnotic state. I have noticed sensations of intense cold to be developed in place of heat, also electric discharges, slight cramps in the muscles of the shoulder-blades and neck or even in the arms and lower limbs.

These are positive symptoms of a natural disposition to hypnosis; therefore this preliminary experiment allows me to eliminate all the individuals in whom hypnotic tendencies are either absent or too weak to be worth developing. I also decline to proceed further with anyone, who has proved, in this first attempt, to be subject to fits or hysterics, or shows a disposition to over-excitement detrimental to mind and body.

“When I have decided to proceed with my experiment and after the sensation of heat, or extreme cold, etc., over the region I have touched has become very marked, I gradually withdraw my hands, without saying a word, and the subject follows me, walking backwards; should he not do so the first time, I resume my hand application

on the shoulder-blades, until the complete effect has been produced, and then the subject gives up the struggle—sometimes with amusing contortions—and follows me



ATTRACTION AND REPULSION.

backwards. I act here as a magnet and he as the attracted metal. I have no trouble in producing the reverse effect and compelling the subject to walk away from me."

We will not follow the writer in the details of his experiment; sufficient for us to know that he has, by his simple method produced what is called light hypnosis, a state that corresponds to the Somnambulistic stage or the Fascination of the Luys classification. The reader will notice that no word has been pronounced all through the operation; therefore the suggestion idea is not to be entertained in this case.

D. The Dr. Luys favorite method, and one which is a sort of short cut to hypnosis, as it allows the hypnotizer to operate on a number of subjects, or would-be subjects, at the same time, is based upon the use of the *Rotary Mirror*. The apparatus used by the late chief of the Charité Hospital school is well known by lovers of the bird-shooting sport as the *Larks' Mirror*, and is in constant use, in France, for attracting small feathered game within range of the sportsman's gun. A number of tiny

pieces of looking-glass are inserted into an oblong piece of wood, making it look as if covered with the facets, or polished surfaces of a precious stone cut by an expert lapidary. Placed on a pivot and set revolving rapidly by means of clock-work, this ingenious contrivance creates the peculiar fatigue of the optic nerves, which, in individuals predisposed to hypnotism will determine this peculiar sleep.

Grouped around a table upon which stands the mirror in operation, a number of candidates to hypnosis, comfortably seated and gazing intently upon the dazzling toy, may thus be tested at the same time. It hardly takes more than 3 to 5 minutes for the *Larks' Mirror* to induce hypnosis in persons so disposed. The time is reduced to seconds with trained, highly nervous individuals.

E. The Fascination method.*—We have here a repetition, under another form, of the fatigue of the optic nerves. But instead of a polished surface, or revolving mirror, the human eye is made to serve as the brilliant point to be gazed upon fixedly. The operator's eyes must be intently fixed upon the subject's organs of vision, and to increase the desired weariness, the latter must be compelled to look upwards, almost directly, but not quite above his head, the hypnotizer towering over him. The believers in the power of the will exerted by the hypnotizer are fond of quoting this method as proof complete of the dominating influence of certain eyes over certain persons not endowed with a sufficient amount of resisting will-power. But, there is no serious evidence that

* The method called by that name is distinct from the "Fascination Stage" described in Part II.

the eyes of the operator act any differently from any other brilliant surface, intensely gazed upon. Of course, this "prise du regard," or "grasping of the gaze," as it has been rather ambitiously called, is generally followed by a series of unwilling actions on the part of the subject, which may lead the superficial looker-on to believe in the absolute control of hypnotizer over hypnotized. But this power is only temporary, and in a few minutes, the awakened subject will be ready to be put to sleep again, just as easily, by a total stranger using the same method, and not pretending to make any effort of will-power toward this result. Once in a while, very exceptionally indeed, there is a subject who can be placed in the hypnotic state only by one particular operator; in that case both are said to be *en rapport*. But this curious phenomenon belongs decidedly to the domain of suggestion, which will be studied at length in another chapter.

2. By the Mental Methods.

The reader will notice that, so far, we have not presented any method which demands any suggestion on the part of the hypnotizer, or necessitates the use of the gestures (passes) peculiar to the magnetizers. For the success of these modes of operation, the hypnotizer depends therefore exclusively upon *sense stimuli*, an expression which is perhaps not quite correct as the senses appealed to are not really excited or *stimulated*, but rather made weary to the point of partial or total relaxation of their natural characteristics.

In radical opposition to these simple and rational ways to induce hypnotic sleep, we present now a system that depends entirely, for success, upon a psychical or men-

tal influence exerted by the operator upon the candidate for hypnosis. Our personal opinion is that the easiest and shortest way to the desired goal consists in the combination of both systems, and we will try, further on, to illustrate our meaning. Let us now present, impartially, what the School of Nancy does.

We can do nothing better than to insert herein a typical experiment by this method, carefully related by Dr. Moll, one of the German followers of Liébeault and Bernheim:

"Mr. X., forty-one years old, seats himself on a chair I tell him he must try to sleep. 'Think of nothing but that you are to go to sleep.' After some seconds I continue: 'Now your eyelids are beginning to close; your eyes are growing more and more fatigued; the lids quiver more and more. You feel tired all over; your arms go to sleep; your legs grow tired; a feeling of heaviness and the desire for sleep take possession of your whole body. Your eyes close; your head feels duller; your thoughts grow more and more confused. Now you can no longer resist; now your eyelids are closed. Sleep!' After the eyelids have closed I ask him if he can lift them. (He tries to do so, but they are too heavy.) I raise his left arm high in the air. (It remains in the air, and cannot be brought down in spite of all his efforts.) I ask him if he is asleep. 'Yes.' 'Fast asleep?' 'Yes.' 'Do you hear the canary singing?' 'Yes.' 'Now you hear the concert?' 'Certainly.' Upon this I take a black cloth and put it into his hand. 'You feel this dog quite plainly?' 'Quite plainly.' 'Now you can open your eyes. You will see the dog clearly. Then you will go to

sleep again, and not wake till I tell you.' (He opens his eyes, looks at the imaginary dog and strokes it.) I take the cloth out of his hand, and lay it on the floor. (He stands up and reaches out for it.) Although he is in my room, when I tell him that he is in the Zoological Gardens he believes it and sees trees, and so on."

In this case X. is thrown into the hypnotic state solely by the hypnotizer arousing in his mind the idea of hypnosis. As stated above, this manner of hypnotizing is the one used by the Nancy investigators, and they claim that subjects thus hypnotized are—during hypnosis—absolutely without a will of their own. They say it is not only possible in such cases to prevent the most various movements by a mere prohibition, but that the operator controls even the sense perceptions, causing the subject to see and hear what he (the operator) pleases. Dr. Moll adds: "But the following phenomenon is still more striking. X. hears all that I say to him, and allows himself to be influenced by me in every way. Yet two other men, A. and B., who are present, appear not to be observed by the hypnotic at all. A. lifts up the arm of the subject; the arm falls loosely down, and when A. desires the arm to remain in the air the subject takes no notice. He obeys my orders only, and is *en rapport* with me only. In order to wake him I now call to him: 'Wake up!' He wakes at once, but only remembers going to sleep; of what happened during the sleep he knows nothing."

The reader who has perused with some attention our chapters on Imagination, Credulity and Expectation, will remember the importance we laid upon these mental

characteristics, in the possible induction of hypnosis. The above description of an hypnotic experiment by the Nancy method, simply confirms all we wrote on the influence—especially on ultra-nervous subjects—of such clever, persistent appeals to their trust in the hypnotizer's power (Credulity) and their belief in the certainty of their reaching the hypnotic sleep (Expectation). Add to these elements of success, the tone of voice, dull and almost vague, the gradual weakening of the sense of hearing, the comfortable position, the absence of high light, jarring noises, etc., and we realize that, after all, the mental method is very closely related to the physical agent system. We may add without fear of contradiction—and it will be enough to refer in confirmation to the able work of Dr. Ernest Hart, of London*—that in the comparatively small percentage of human beings that can be placed, without serious difficulty, under the influence of hypnotism, a very insignificant minority of honest subjects—severely ignoring conscious and unconscious *simulators*—are influenced by the mental methods, used *by themselves* and free from all physical agencies.

And yet, we unhesitatingly admit that well directed action upon the subject's Credulity and Expectation, added to the wise use of some of the physical agents mentioned above will greatly assist, simplify and hasten the induction of hypnosis.

Thus the question need not be one of obstinate antagonism against one or the other of the methods, but one of careful *blending*, of intelligent *eclecticism*, both scientific and practical; never forgetting, however, that

* *Hypnotism, Mesmerism and the New Witchcraft.*

it is essentially desirable not to fatigue the subject uselessly, while keeping oneself ever on guard against the wiles and tricks of clever and wicked simulators.

3. By the Mesmeric Method.

We find the *modus operandi* most frequently resorted to by the mesmerizers or magnetizers, to be well and fully described in the following narrative from the pen of a reputable and—in the main—successful operator.

“My subject, to-day, is a woman, and she has never been experimented upon hypnotically. When she has seated herself on a chair I place myself before her; I raise my hands, and move them downwards, with the palms toward her, from the top of the head to about the pit of the stomach. I hold my hands so that they may not touch her, at a distance of from one to two inches. As soon as my hands reach the lowest part of the stroke I carry them in a wide sweep with outspread arms up over the subject's head. I then repeat exactly the same movements; that is, passes* from above downwards, close to the body, and continue this for about ten minutes. At the end of this time the subject is sitting with closed eyes, breathing deeply and peacefully. When I ask her to raise her arms, she raises them only slightly; they then fall down again heavily. When I ask her how she feels, she explains that she is very tired. I forbid her to open her eyes. (She makes useless attempts to open them.) Now I lift up her right arm; it remains in the air, even after I have let go.†

* The “mesmeric passes” were not used by Mesmer; it is true that he endeavored to influence by touch, but these peculiar, monotonous, long-continued passes described herein, seem to have been unknown to him.

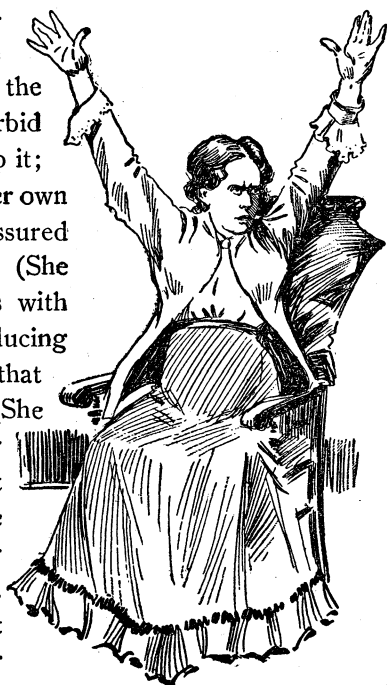
† This we find a symptom of the cataleptic stage.

I command her to drop her arm. (She drops it.) I lift it again, and again it remains in the air; upon which I request her to drop her arm, declaring at the same time that she cannot do it. (She now makes vain efforts to drop her arm, but it remains in the air.) The same thing happens with the other arm. When I forbid her she is unable to drop it; she cannot pronounce her own name, directly I have assured her that she is dumb. (She only makes movements with her mouth, without producing any sound.) I tell her that now she can speak. (She speaks at once.) I order her to lift both arms at the same time. (She does so.) To open her eyes without awaking. (She opens her eyes but preserves the peculiar expression of the magnetized.)”

ORDERED TO THROW UP HER ARMS

The hypnotic sleep has evidently been induced.

Many persistent objectors to the existence of the so-called “magnetic fluid,” claim that in the experiment, the regular passing of a slight current of air always in the same direction, over the same portion of the body, develops a stimulus of the sense of touch, which with sensi-



tive subjects, fully expecting to be put to sleep by an operator in whose efficiency they believe, acts as would any other kind of physical agent combined with an appeal to Credulity and Expectation.

In most cases, we think this point well put and carried. But hypnotic phenomena due to the magnetizing process are not always so easily explainable, especially if the subject proves to be decidedly skeptical and not hypnotizable by the usually employed physical and mental methods. We have then to admit the existence of some sort of fluid emanating from certain individuals in whom it, so to speak, *overflows*; by referring to our chapter on the "Od" and Colonel de Rochas' experiments, the reader will find the topic exhaustively treated.

It is a well known principle, in medical teachings, that health as well as disease, weakness as well as strength, are contagious; in other words, the strong, under certain circumstances, unconsciously do part with a portion of their strength for the benefit of less vigorous natures. It seems, therefore, as if there did really exist some sort of life-giving, life-preserving fluid, the transmission of which from one being to another, takes place under conditions that remain, to this day, absolutely unexplained.

"Every living being," Jussieu writes in his Report to the Paris Academy of Medicine concerning Mesmer's experiments, "is a real electric body, constantly impregnated with this active principle; not, however, always in the same proportion. Some possess a large amount, others less; hence, it is evident that it is outwardly propelled by some, and drawn in or eagerly sucked up by others; and that the vicinity of him in whom it is abun-

dant is profitable to him who lacks it. The cohabitation of a child with an old man is favorable to the latter but injurious to the former; in the same way plants kept in a nursery garden are strong and fresh, but if grown in the vicinity of large trees they wither and dwindle down."

This idea suggested experiments on animals, with a view of ascertaining if they could impart health, and from this sprung the most absurd ideas, although they were in the first instance based on a correct one.

In our own day—and conscientious observers affirm the truth of the fact—it has been found that dogs and cats lying on their masters' feet will free them, at the animal's expense, of rheumatic pains. These phenomena seem to point to the existence of the *fluid*, which has always been the basic principle of the mesmerizers' method.

Having admitted, for the sake of argument, that there does exist some sort of active fluid radiating from the nerves of certain living creatures, and absorbed freely by others less richly endowed, let us now follow the magnetizers in their further claim that there is an *antipathetic* as well as a *sympathetic* fluid. When their attention is called to the fact that certain individuals never can induce sleep even in the most easily hypnotizable subjects, they proclaim that a *sympathetic fluid* is essential, but that each person may eventually find his or her hypnotizer, even when numerous attempts at inducing sleep have failed. On the other hand, the mesmerizers consider as absolute evidence of the magnetic power, the fact that certain persons will not—and perhaps cannot—be put to sleep by any other operator than this or that particular one, and

once under hypnotic influence ignore anyone else's orders or suggestions but those of the hypnotizer. Now, this is the common hypnotic phenomenon called *rappport*. In hypnotic *rappport* the subject responds only to the hypnotizer. Some prominent experts of the *physical agents' method* have tried to explain the *rappport*. They assert that the subject falls asleep thinking of the experimenter, and with his whole attention directed to him, and that on this account only the idea of him remains active in the semi-consciousness during hypnosis. Consequently he alone could make suggestions. As suggestions are most easily made through the muscular sense and the hearing, when *rappport* exists it is made most clearly evident by means of these senses. The operator *en rappport* lifts up the arm of his subject; it remains raised as in the cataleptic stage. Another person (A.) makes the same attempt without result; the arm always falls down loosely. A. now tries to bend the cataleptic arm, but is prevented by its rigidity, while the operator easily succeeds. The school of Charcot admits that in most cases only the hypnotist can relax a continuous contraction in somnambulism by renewed stimulation of the skin. This experiment seems to prove that these contractions do not take place without some mental action; for if we had only to do with physical stimuli, any one could produce the same result. All this becomes even clearer in the transference of *rappport*. The command of the experimenter suffices to put A. and B. in *rappport* with the subject. But the stimulus applied by A. and B. before the command is, from a physical point of view, exactly the same as is applied after it; and any explanation of these things is impossible,

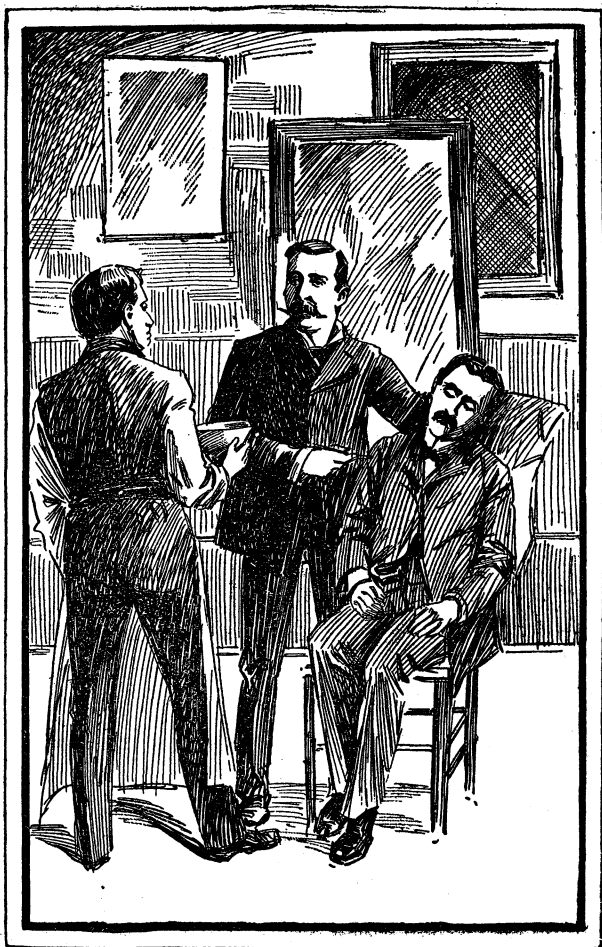
unless we take refuge in the supposition that some mental action takes place in the production of catalepsy and contractions. The circumstances are similar in verbal suggestion. The experimenter says when he has lifted the arm, "Now it bends, now it falls, now it is stretched out," and the effect at once follows. The commands of others are thrown away if they have not been put in *rapport* with the subject by the experimenter. Let us add that the phenomena like those of *rapport* in hypnosis have been observed in spontaneous somnambulism.

All this, to prove that the mesmerizers have not the monopoly of the *rapport*, which they claim as their particular means of action.

We have only described one of the various methods used by mesmerizers to produce magnetization in their subjects. It is distinctly their own and, in the mind, of the general public, it confirms the common, unreasoned opinion, that some fluid is escaping the operator and overcoming the subject.

But, besides passes, the magnetizers also employ other systems which are in constant use among hypnotizers, first of all the intense gaze—the *prise du regard*. This, of course, is nothing more than the introduction of one of the most habitual *modus operandi* of the hypnotizer; the stimulation of the sense of sight by means of a brilliant surface. This has really ceased to be considered part and parcel of the "Magnetizer's Method."

The sense of touch is also frequently appealed to by Mesmer's successors; and the *Moutin Method* we described in a preceding chapter, is very similar to certain of their experiments. Here again they have recourse



Surgical Operation During Hypnotic Sleep.

to physical agents, which have proved effective without the help of any so-called fluid.

We shall therefore consider the mesmeric method fully and sufficiently reported in this Practical Part of our book by the description we give of the magnetization "by passes."

CHAPTER III.

HOW TO AWAKEN SUBJECTS FROM THE HYPNOTIC SLEEP

The task of awaking subjects who have sunk into the depths of hypnotic sleep is far from being as difficult a problem as it is generally believed to be; nor is the danger of such an awaking not taking place when desired, a possibility that need frighten the would-be operator. However, there are a few rather important principles which ought never to be lost sight of, before and during hypnosis, if complications, or bad after-effects are to be avoided.

First of all, for hypnotic experiments no subject ought to be selected whose general health is not fairly good; the heart and brain especially ought to be perfectly sound, or the emotion, the tremor, more or less marked, which frequently affects the subject, particularly in the earlier sittings, might cause a crisis of hysterics or momentary disorder in the heart's action. Violent nervous fits occur, not infrequently, on account of a lack of attention to the physical condition of the subject. This is apparent not only at the time of the hypnotization, but during hypnosis, and finally when it is desired to awaken the subject. Therefore, we seize this occasion to insist once more upon what we advised in a preceding chapter: "Choose your subjects carefully, and beware of ultra-nervous temperaments. They may be easily hypnotiz-



Before Hypnotism



During Hypnotism



Awake



Religious Somnambulism

SUGGESTION

able, to begin with, but might turn out most troublesome to manage and to awaken."

The second consideration never to be forgotten, is that, during hypnosis, the subject must be treated gently and not made to play all sorts of silly tricks unworthy of himself and the operator. There is something very cowardly in such a treatment of a confiding creature, semi-demented temporarily and used as a toy by a big, healthy operator.

Thoroughness is also recommended in the awaking process, as otherwise the subject may emerge with a severe headache out of his period of hypnotic sleep. The ambition of every respectable hypnotizer—even if the subject is not under treatment—must be to leave invariably soothing, restful, impressions in the mind and body of the subject. By this means, his influence, for further experiments will be strengthened and the results of the experiment be satisfactory to all.

The awaking from hypnosis can occur in two ways—through (1) *immediate action on the imagination*, or through (2) *sense stimulation*.

Waking out of the natural sleep occurs sometimes from mental causes; for example, from habit, or from the resolution to awake at a certain hour; and, on the other hand, it is brought about by stronger stimuli of the senses, for example, a loud noise, an alarm clock.

It is nearly always possible to put an end to the hypnosis by mental means, that is, by the command (suggestion) to wake up, or to wake up at a particular signal. It is hardly ever necessary to use other means, such as fanning, excitation by the sprinkling with water, loud

calls, etc. We cannot confirm the statement of some, that cold has an arousing effect.

Just as the mesmerizing passes induce hypnosis, so the state disappears by the demesmerizing process, in which the passes are made with the back of the hand toward the subject and the movement, *from* the body of the hypnotized instead of *toward* it. Whether the cool current of air, which is nearly always thereby generated, causes the awakening, or whether it is, as many experts think more probable, the belief of the subject that he must wake that makes him come to, remains undecided.

Pitres and others think that there are parts of the body where stimulation produces awakening; they are called "*zones hypno-fernatrices*," just as the name of "*zones hypnogeniques*" is given to those spots of the body whose sensibility induces sleep. Among them the ovarian regions are particularly notable.

Finally, we must mention the forcible opening of the eyes as a means of ending the hypnosis.*

Other processes which have been given, and which were supposed to induce awakening by physical means, such as bringing a live coal near the patient, have only a mental effect, as they are understood as a command to awake.

In rare cases these artificial means of awakening do not succeed quickly; a feeling of fatigue then continues. We feel the same thing occasionally when we wake out of a natural sleep. After deep and long hypnosis a temporary

*This applies particularly to the *lethargic stage*; (see Part Second, Chapter I): In this case *both* eyes must be opened to secure awaking of both sides of the body.

state like extreme sleepiness follows, in which certain hypnotic phenomena continue.

If the awakening is not brought about by artificial means, persons in a light hypnotic state, habitually wake of their own accord after a few minutes, or at most, an hour or so of natural sleep.

By referring to our preceding chapter and to what we say therein about the *rapport*, this peculiar condition when a hypnotized or mesmerized subject refuses to accept the influence, or even the very existence of any but the operator who put him to sleep, the reader will understand that if the said *rapport* has been proved to exist between the parties, no one but the operator will be expected to arouse the subject; in fact, no one else will be able to do so—easily. It has been claimed that the action of the hypnotizer or magnetizer thus in full control is absolutely indispensable to induce awaking; so that, should he refuse to do so, or vanish during his subject's hypnosis, the poor creature might never come out of this peculiar trance. Of course, this is sheer absurdity. In fact all hypnoses, however deep their stages, terminate naturally, *i.e.*, the subjects either awaken spontaneously, or sink gradually into natural sleep from which they emerge in good time, generally refreshed. Exceptionally, it is true, authenticated cases of prolonged hypnotic lethargy or catalepsy have greatly excited the interest of the medical profession; but the percentage of such cases is so small, compared to the number of daily hypnotic experiments, that no apprehension needs be felt on their account.

Still, it will generally facilitate matters to no small ex-

tent, if the hypnotizer takes charge himself of the awaking of the subjects he has sent to sleep.

This awaking question will be referred to again in our chapter on Suggestion, as there is no doubt that in the lighter stages—by far the most frequent—suggestion is the easiest and healthiest method of awaking the subject.

CHAPTER IV.

SUGGESTION

Suggestion—which we have not yet clearly and absolutely defined—is the temporary implanting of the will of one person on the brain of another by a purely mental process. A servant executing an order is acting under suggestion; he obeys his desire to earn his wages. A man in love, complying with the wishes of his sweetheart, submits to a will foreign to his own. A professor, teaching and repeating every day the same precepts to his pupils, imposes his views upon them. A father reproving his son for some error, strives to instil his own principles to obtain better conduct; a mother, who coaxes her child, tries by her caresses to attain the same result; a wife, who by her sweetness and numberless means of persuasion, manages her husband, implants her will in him. The orator, who captivates his audience, acts in the same way. Everything is therefore but suggestion in this world; at least, in the old-fashioned acceptation of the word. No sleep is required for this kind of suggestion, and from this point of view we can agree with Liébeault, Bernheim and the Nancy school.

But outside—physical—agents, also produce suggestive effects upon us; thus a book, the sight of an accident or of some comical incident, a burst of applause, or the sound of music, fill us with mirth or melancholy sensations.

Certain circles give the tone of what is considered clever, and point out what is good in literature or art. A pretty woman will set a fashion that will be followed, if she knows how to show it off. Dress, the choice of furniture or flowers even, are subjected to laws made we know not how. "Here we find," Dr. Luys says, "the same latent incentive, blindly followed, started by an authoritative will that arbitrarily dictates its decrees, and is obeyed by all those who are born to be its humble servants. A superior man is really a social hypnotizer, destined to become the chief of a group of followers to whom he gives the word of command, or the leader of assemblies he fascinates by his eloquence. And all these unconsciously fascinated beings acclaim him, live by his words, and derive satisfaction at being thus led."

It is certain that we are naturally inclined to obey; conflicts and resistance are the characteristics of some rare individuals; but between admitting this and saying that we are *doomed to obey*—even the least of us—lies a gulf. And we add: Even in the hypnotic state, which, in certain individuals seems almost to abolish the power of resistance to others' will power, suggestion is not all-powerful; it has its positive limitations, and we may thank heaven for that.

If we exaggerate the meaning of a word, we may make it express anything we wish; and thereby completely destroy its original signification. This has been the habit of certain hypnotizers with regard to the question we are now treating. They have drawn conclusions from the various influences which the ambient atmosphere exerts upon us, either from our education, or from the preju-

dices which it instils in us, till they have come to believe that a verbal order can radically transform a subject, for good or bad. We are now ready to admit, that by dint of repeating the same proposition, the character may be modified, but this is merely the effect of our social surroundings. If these are good, the subject who is their product may be good; and the saying, "A man is known by his friends," may be correct. Nevertheless, there are numerous exceptions to this rule. How many superior men have very inferior sons! How many honest parents have blackguard children! How many criminal fathers have *not* been imitated by their descendants! And the numberless proverbs such as, "Like father, like son;" or "Good blood will tell;" are, like every other proverb, liable to numerous exceptions.

In our opinion, hypnotic suggestion is an order obeyed for a few seconds, at most a few minutes, by an individual in a state of induced sleep. It cannot be compared, unless very vaguely indeed, to the suggestions in the waking stage, and imparted to individuals who have never been under hypnotic influence. The hypnotic suggestion may be repeated; but it is *absolutely powerless to transform*—as has been asserted—a *criminal into an honest man* or *vice versa*.

"But," protest the believers in the limitless power of suggestion, "we have made our subjects commit *imaginary* crimes, and, being deprived of all conscience, they are just as ready to commit *real* crimes." If, however, they no longer possess a conscience, why do somnambulists only obey suggestions that are agreeable, or at

least unimportant in their eyes, and that are made to them by an individual who is a *persona grata*?

"The School of Nancy," writes Charcot, "pretends that by means of suggestion an individual can be sufficiently influenced to make him commit a crime; but there is not a single example of such a crime, and Messrs Liébeault, Bernheim and Liégeois would be extremely embarrassed if they were called upon to prove what they allege."

It is certainly possible to influence a hypnotized subject sufficiently to make him fulfil an insignificant action; but, we repeat, there is no example forthcoming, that anyone has been able to *make* a criminal. There are only—what Gilles de la Tourette has called *laboratory crimes*.

It is only necessary to quote the facts given by the most famous platform hypnotizers to refute the alleged negation of free will. Donato, for instance, asserted before the International Congress of 1889, that he had induced sleep in 30,000 individuals, but that not one of them could be so influenced against their own will, and Alfred Reybaud gave similar evidence; moreover, we may refer what takes place daily in the hospital wards devoted to nervous diseases, where the best subjects go to the highest bidder. If, on the other hand, hypnotism did bestow this fatal power, it is evident that a well-trained subject would never be able to abandon his first master; and yet, not once, but hundreds of times, subjects—when it is to their own interest—leave their former masters in order to get better pay.

"I have often seen the suggestion made to subjects, not to allow any but their habitual hypnotizer, either a doctor or a magnetizer, to induce them to sleep," writes

Dr. de Courmelles, "and yet I have frequently seen these very same subjects at public exhibitions where any one could and did send them to sleep."

Dr. Delboeuf has tried to do violence to the subject's will, and declares that he has never succeeded. In fact, all conscientious experimenters have been compelled to admit that automatism under hypnotism is not absolute. Hypnotized individuals energetically refuse to make the suggested avowals of crimes or errors, systematically and obstinately persist in a lie, and resist suggestions that in any way personally affect them or engage their responsibility; while at the same time they readily obey any insignificant suggestion. Here is an example:

Colonel de Rochas tried the following suggestion on an excellent subject. The latter had been left alone for a few minutes in an apartment, and had stolen a valuable article. After he had left, the theft was discovered. A few days after, it was suggested to the subject, while asleep, that he should restore the stolen object; the command was energetically and imperatively reiterated, but in vain. The theft had been committed by the subject, who had sold the article to an old curiosity dealer, as it was eventually found on information received from a third party. Yet this subject would execute all the imaginary crimes he was ordered.

Donato, Hansen, Alfred Reybaud, de Casti, and all the magnetizers, great or little, are unanimous on this point. Although they have often been victims of simulators, who, paying for their places at public exhibitions, considered they had a right to amuse themselves as they chose, yet they induced real sleep in a sufficiently large

number of persons to be able to form a sound opinion; and they maintain that free will is not destroyed. All that an operator can do, is to unsettle a subject and develop in him nervous phenomena; sometimes, indeed, producing an attack. At the most, therefore, suggestion is a violent temptation given to the subject, which he has the power to resist. Take away the exciting cause, and the patient will soon calm down. This is the reason why an order should be rescinded during the hypnotic state, and the hypnotized patient will have no unpleasant after-effect if this rule be followed. Colonel de Rochas obliterates the suggestions he has given to his subjects by frictions on the crown of the head—for he has noticed that they are always in an anaesthetic state when they are about to carry them out—and this not only allows them the free use of will, as they have the power to resist, but also frees them from any evil thoughts. If these thoughts agree with their own natural ideas, suggestion will augment their tendency; *but that is the full extent of its power.*

The criterion of a criminal suggestion would be the proof of a real assassination committed under suggestion. "Let them produce one authentic case," Dr. Gilles de la Tourette says, "and our opinion will be shaken, although we should not, even then, be convinced." Professor Liégeois' answer to this is, that they cannot have a murder actually committed, as that would not be lawful. These are but specious arguments; in truth, the patients whose profession it is to be hypnotic subjects—and this very uninteresting class is the one generally operated on—will, certain as they are of impunity, do everything the men of science choose to order.

Thus we cannot come to any conclusion. The absolute criterion would be contained in numerous facts, duly tested by numerous observers, and accomplished in a manner evidently contrary to the subject's interest. Moreover, the latter should not know that he was under observation. Should suicide be suggested, even then, the subject might believe that he would be stopped at the last moment. Dr. Foveau heard a subject say: "If I were ordered to throw myself out of the window, I should do it, so certain am I, either that there would be somebody under the window to catch me, or that I should be stopped in time. The operator's own interests and the consequences of such an act, are a sure guarantee." After such a confession, nothing more needs be said, in our opinion, to prove that "suggestion has its limits to be found in the moral nature of the subject."

Let us now investigate Hypnotic Suggestion a little further, and first of all divide it in to its three different stages under three different names:

1. *Inter-Hypnotic Suggestion*—the manifestations of which take place *during Hypnosis*.
2. *Post-Hypnotic Suggestion*—the manifestations of which take place *after Hypnosis*.
3. *Auto-Suggestion*—the manifestations of which are, in appearance at least, spontaneous, *i.e.*, do not need the commands of the operator, and may take place away from him and some time after the latest spell of hypnosis.

1. Inter-Hypnotic Suggestion.

We had occasion to state already, that only a small minority among the *hypnotizable* people are also *sug-*

gestible. The School of Nancy claims that practically *all* the hypnotic subjects may be trained to obey suggestions. But Dr. Charcot, whose conservative opinions in the matter have proved the nearest to the real facts, declares that *suggestibility* is found in comparatively few cases, and only among subjects whose nervous system is more or less affected. The fact that persons in apparently perfect health and with strong muscular frames, have been placed not only under hypnotic influence, but also under the power of suggestion, is no contradiction to Charcot's statements; since nervous defects very frequently exist in men and women who have not the faintest suspicion of their lurking within them. The taint—probably inherited—has not yet manifested itself in the forms of actual disease.

Having then reduced the number of the suggestible, we will also limit to *two* the hypnotic stages during which suggestion is effective. Of course during hypo-lethargy and lethargy, sensations, bodily and mental, having sunk into slumber akin to death's, no one would expect to reach the seemingly vanished mind through the channel of suggestion. Even in deep catalepsy, no manifestations of the kind take place, habitually. It is, therefore, in the lighter cataleptic stage, in the intermediate or fascination period especially, and finally in the somnambulistic stage that suggestion becomes effective and brings out the strange, often amusing, and at times quite dramatic manifestations that have been—wrongfully—characterized as due to a suppression or suspension of the will-power of the subject.

We need not repeat here what we explained at length



The Peculiar Gaze of the Hypnotized.

as to the exclusive power of certain operators on certain subjects; this is the theory of the *rapport*, and it constitutes also the main argument in favor of the magnetizer and "his personal fluid overcoming the poorer, weaker fluid of the magnetized." Let us, for the present, admit, that during hypnosis, the operator who induced it is generally the person who will find it easier to have suggestions obeyed.

We had occasion lately to read with great interest Dr. Herbert A. Parkyn's remarkable work entitled *Suggestive Therapeutics and Hypnotism* and to converse, at length, with the brilliant American exponent of the School of Nancy ideas. The question of suggestibility was one that attracted more particularly our attention at the time; and we found that Dr. Parkyn, whose experience both as a teacher and an operator has been very extensive, gave to suggestion pure and simple, without the admixture of physical agents the foremost place in the induction of the somnambulistic state. We found also that, almost alone among the prominent hypnotizers of the 20th century, Dr. Parkyn has the strongest doubt as to the very existence of hypnotic sleep; he considers the deeper stages, lethargy and hypo-lethargy, as special pathological states that have really little, if anything, in common with hypnosis. And as to the lighter stages he groups them under one appellation of his own, and calls them more or less pronounced "states of acquiescence." Finally he claims that there is really no sleep, that the subject is from start to finish under the influence of suggestion, and that his will-power is so deeply affect-

ed by that influence that he will answer *yes* or *no*—at the will of the operator—when asked if he is asleep.

Thus, one of the leaders among the American practitioners of the present day gives to suggestion and its manifestations even wider meaning and scope than Liébeault and Bernheim. Without accepting this new doctrine as satisfactorily sustained by facts, we cannot deny that it is decidedly novel, alluring, and presented with great authority and distinction.

Let us return now to the more orthodox views and methods in connection with *Inter-Hypnotic* Suggestion.

The first symptom that will reveal to the operator that the subject is suggestible is the fact that he will answer affirmatively the question:

“Are you asleep?”

His replying is sufficient evidence that between him and the questioner, there is a means of communication. This of course happens only in a limited number of cases of hypnotic sleep.

Once convinced that the subject hears and understands what is said to him, the operator may attempt to appeal successfully

A. *To the Subject's Senses.* To his sense of *sight* by causing him to see things that are not. To his sense of *hearing* by making him declare that he hears certain sounds, cries, bells, music, etc., while perfect silence reigns in the room. To his sense of *taste* by having him eat with apparent relish things he would otherwise loath to put into his mouth, such as soap or raw potatoes, etc. To his sense of *touch* by making him declare, for instance, that he is caressing a seal skin fur, when on the contrary



Indignation

SUGGESTION

Amazement



Protest

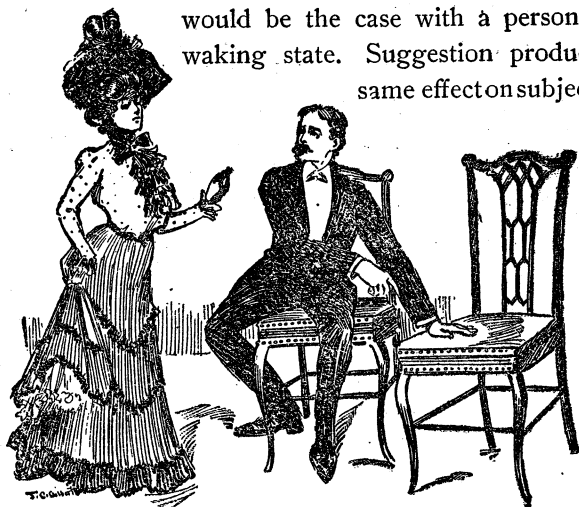
SUGGESTION

Hatred

he is passing his hand over a rough surface. To his sense of *smell* by causing him to enjoy ammonia or assafetida as one of the loveliest perfumes of Arabia.

All these strange phenomena are of common occurrence with all hypnotic subjects who are also suggestionable.

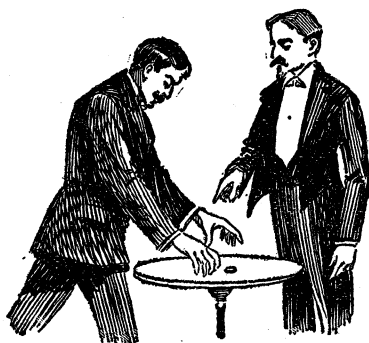
B. *To the Subject's Movements.* In catalepsy, as already explained, a rigidity of the limbs is obtained without verbal suggestion, simply by placing the member in a certain position which it will keep for a very long while without any tremor indicating effort or lassitude, as would be the case with a person in the waking state. Suggestion produces the same effect on subjects who



FORCED TO SIT IN A CHAIR

have not gone further down in scale than the somnambulistic stage. The operator may start or stop at will not only the movements of the legs and arms, but even those of the lips, tongue, eyelids, etc., preventing any

sound from being uttered or starting suddenly the inhibited power of speech. The subject can also be made to sit down and write from dictation, and frequently to indite and sign papers that may compromise his fortune



FORBIDDEN TO PICK UP A COIN

and even his honor. We must add, however, that there is great doubt whether anything so detrimental to the subject's interests could and would take place, unless the latter had an inward feeling that all this writing was really of no account and could not be brought up against him.

C. *To the action of the subject's vital organs, nerves, etc.* We devote a whole chapter to this application of the suggestive influence, under the title of *Hypnotism in Medicine, Surgery and Education*. (Which see.)

To classify in a few words the various possibilities of Inter-hypnotic suggestion, we will say that suggestible subjects may be divided as follows:

1. Those who submit absolutely to suggestion whatever its nature.
2. Those who resist all suggestions contrary to their sense of morality and honesty, or to their strongly inbred habits.
3. Those who only obey suggestions of a pleasant nature.

As to the manner the hypnotizer must assume when

attempting to influence a subject by suggestion, it must be firm and positive to a degree, though not stagy or exaggerate in dramatic tone and gesture. The subjects most easily suggestioned are seldom free from nervous troubles, and it might add greatly to their diseased condition if they were handled roughly—even in words. Somnambulists are known cowards; to frighten them out of their poor wits is hardly the work of a gentlemanly operator. Besides it is not necessary to act with this extreme imperiousness, whenever the hypnotic state is clearly evidenced in the usual way.

IMPORTANT: Never forget to cancel the suggestion completely and thoroughly before awaking the subject, otherwise its effects would continue after awaking. (See below "Post-Hypnotic Suggestion.")

As a means of awaking the subject from hypnosis, suggestion is of good, and most beneficent use. Let the subject be notified that "in two minutes he shall awake perfectly well and fresh," and it will be found that at the expiration of the one-hundred and twentieth second the trance will be over, and all painful after-effect, even to the slightest headache or fatigue, avoided. And this brings us to the second kind of suggestion, rather irrationally called

2. Post-Hypnotic Suggestion.

As a matter of fact the suggestion is imparted *during hypnosis*, but the acts the subject is ordered to perform are to take place *after hypnosis*, sometimes a long time after.

This is a point of such importance in medicine and

psychology that it must be examined in detail. No serious observer can doubt the reality of post-hypnotic suggestion; even the old mesmerists observed some cases of it. In reality a suggestion that takes effect in hypnosis will also take effect post-hypnotically; movements and delusions of the senses, itching, pain, action of the bowels, hunger, thirst, etc., can be induced; even dreams can thus be influenced, while dreamless sleep can be induced in the same way.

It is possible to carry on suggestions from hypnosis into waking life; they are then called "continuative suggestions." We may suggest that a photograph is on a visiting card, and say that the subject will continue to see it after awakening. According to Londe an illusion of this kind has lasted for two years. This carrying on of the suggestion into normal life happens sometimes by chance, "when the suggestion has not been cancelled before the awakening." A subject drinks what has been suggested to him as peppermint water; when awakened, he says for an hour after, that he has a taste of peppermint in his mouth. The following often-repeated experiment belongs to the continuative suggestions: We say to this subject, "Count up to ten, and wake when you get to three." He counts up to ten, but is awake while counting from four to six.

In other cases the suggestion only takes effect after waking. We say to the subject, "You will not be able to move your right arm after you wake." He wakes, and is unable to move it, though otherwise in a normal state. Exactly the same effects may be produced after an interval of hours, days, weeks and months; for instance we

say to a subject, "When you come to see us in a week you will not be able to speak when you come into the room." He comes to call in a week, and is fully awake when he enters the room; he is asked his name, but is unable to say it, or anything else. Here we have an example of fulfilment of suggestion after an interval, or "deferred suggestion."

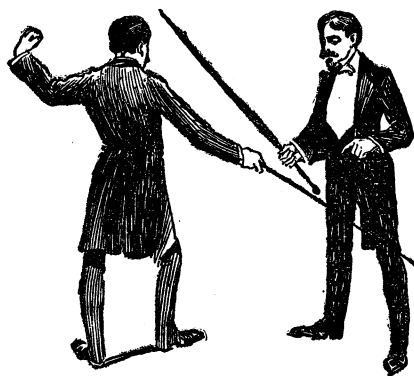
Post-hypnotic suggestions may be divided into two groups. In the first group the suggestion is forgotten on awakening; in the second it is remembered.

The moment for the fulfilment of the suggestion can be decided in several ways. To one subject we say, "An hour after you wake you will hear a polka played; you will believe you are at a ball, and will begin to dance." To another, whom we wake at eight o'clock, we say, "When the clock strikes nine you will take the water-bottle from the table, and walk up and down the room three times with it." The moment of fulfilment is decided differently in these two cases. In the second case the moment is decided by a concrete external sign; in the other an abstract term, an hour, is fixed.

The suggestion in this second example, where the moment of action is decided by some external sign, nearly always takes effect, especially after a little hypnotic training. The first move rarely succeeds. There are some subjects, however, with whom such suggestions take effect punctually. But the greater number are not only unpunctual, but often do not execute the suggestion at all, if some external impetus is not given; others carry out the suggestion, but inexactly—in forty-five minutes instead of one hour, etc.

There is a third way of appointing the moment for the execution of a post-hypnotic suggestion, which has been carefully experimented upon. The operator says to a subject, "When I rub my foot along the floor for the tenth time after you awake, you will laugh." The subject wakes, and does not remember the order. He is talked to, and the foot is rubbed on the floor several times without his paying any attention; but at the tenth shuffle he laughs. Consequently the suggestion has taken effect. The experiment is repeated, but at the fourth shuffle the subject is asked if he has not heard the noise. He says, "No." Nevertheless at the tenth shuffle he laughs, though he is quietly talking to the operator.

Post-hypnotic deferred suggestions can be made in two ways; for example, on the 3rd of May the operator



A ONE-SIDED DUEL

says to a person who sees him every day, "On the 6th of June, when you come into the room, you will see me with a black face, and you will laugh at me." The suggestion succeeds. It might have been another matter if the suggestion had been formulated thus: "On

the 35th day, reckoning from to-day you will come into my room and see me with a black face," etc. And yet, suggestions of this kind frequently succeed.

Another instance is given by Moutin in an illustration we insert in this chapter. He had suggested, during hypnosis, that half an hour after awaking, the subject would seize a couple of umbrellas in a corner of the room, and challenge the operator to a duel, believing the umbrellas to be swords. The incident occurred, but before the fencing began the operator again plunged the subject into hypnotic sleep and forbade him to touch him with the point of the improvised weapon. Both kinds of suggestions were brought to bear on the same subject.

The question now is, What is the condition of the subject while carrying out the post-hypnotic suggestion? The post-hypnotic suggestions are certainly not carried out in a waking state, even if the action takes place after the awakening from hypnosis. The question has led to lively discussion. We will not attempt to follow its intricacies; our opinion is that at the time the postponed action takes place, the subject is placed again, during a short period, and automatically, so to speak, in the hypnotic condition. He comes out of it as soon as he has completed the act suggested to him during the earlier hypnosis.

This explanation of Post-Hypnotic suggestion brings us logically to the description and explanation of

3. Auto-Suggestion.

In the natural waking state, and with persons who have never passed through lethargic or somnambulistic periods, we would say that an auto-suggestion is nothing else but a very powerful desire to do or not to do a thing—not necessarily a bad thing. An irresistible tempta-

tion from within, would be a perfect type of auto-suggestion. But we are not referring in this paragraph to any such moral—or immoral—influences acting within us and controlled more or less by our conscience; the kind of auto-suggestion we are alluding to is a manifestation of a hypnotic state that has developed without the assistance of an operator.

Or again, it is a suggestion coming to the subject as a kind of repeater, and really due to some former state of hypnosis and some inter-hypnotic suggestion that entered his mind at the time and has not been absolutely cancelled. A thoroughly trained, highly hypnotizable and suggestible subject will fall under the spell of former hypnoses simply by thinking of them or by receiving an order by letter from his ex-operator. Such phenomenon can hardly be called auto-suggestion, since an outside influence is really at work by means of an over-excited memory.

During hypnosis, auto-suggestion may manifest itself through some awkward move of the operator who has unwittingly created in the subject's mind some false idea or apprehension which soon acts as powerfully over him as an imperious command from the operator. Frequently a kind of obstinate resistance is thus created that upsets all the efforts of the hypnotizer to enter *en rapport* with the subject; in such cases, a counter-suggestion, direct and positive, will generally do away with the auto-suggestion and leave the field free for new experiments.

CHAPTER V.

HYPNOTISM IN MEDICINE AND SURGERY

It is more and more evident that the present interest in hypnotism depends chiefly upon its utility in the cures of the various ills humanity is the unfortunate heir to. In spite of all differences and the obstinate opposition of the old-school practitioners, it becomes more and more clear in medical circles that a thorough examination of it cannot be disdainfully put aside.

We have already seen that the Nancy School, represented by Bernheim and Liébeault, think that hypnotism means suggestion, and that suggestion is truly its chief agent. Bernheim believes that hypnosis is a peculiar mental state, in which susceptibility to suggestion is heightened. It follows from this that suggestibility exists apart from hypnosis, and that consequently there is no contradiction between the curative possibilities of suggestion whether in, or out of, hypnosis; one is the natural complement of the other.* It is the school of Nancy which has pointed out that there are many suggestions without hypnosis, and it was the first of all to recognize the curative value of pure suggestion.

The healing powers of suggestion are founded on the principles which we discussed and accepted in our Chapters on the Influence of Imagination, Credulity and Ex-

* This is in another form the opinion of Dr. Herbert A. Parkyn, who contests the existence of the hypnotic sleep.

pectation upon the Human Mind. This principle may be formulated as follows:

A number of diseases can be cured or relieved merely by making the patient *believe* he will soon be better, and by firmly implanting this conviction in his mind. From the most ancient times this mental influence has been used. The temple sleep of the old Greeks and Egyptians was a means to facilitate the effect of suggestion. The sick lay down to sleep in the temple, and were told by the god in dreams of something that would cure them. In later times we may mention the well-known Greatrakes, whose cures astonished all England in the 17th century, and Gassner, the exorcist, at the end of the 18th.

Among other wonder-workers we may recall Prince Hohenlohe, at the beginning of the last century; a Catholic priest, who aroused much attention by his cures in Bavaria, after 1821. The mesmerists supposed he was one of those persons who possess a peculiar force, while on other sides, religious faith was called in as an explanation. One school of mesmerists, that of M. Barbarin, of Ostend, maintained that the influence was a purely spiritual one, and that the right way to induce sleep was to pray at the patient's bed-side. This was the first form of what is so popular now under the name of "Christian Science."

We do not care to multiply examples of so-called suggestive cures, except to mention the authenticated cures which have occurred quite recently at Lourdes and other holy places. When we see that it is exactly those people who use suggestion who are the most successful, we are justified in giving it a high place in practical medicine.

For no one who reads the stories with unprejudiced mind can doubt that Gassner and several others were more successful than many a scientific physician; though they are unjustly called charlatans. It may be that some of the diseases were of a hysterical nature, but there were many others. It is at least certain that nearly all of them were diseases which the usual medicinal treatment had failed to heal. But, as stated, if suggestion is to succeed, the patient must firmly believe he will be cured. This belief must be impressed upon him, and the question is how this can most surely be done. Any patient who goes to Lourdes with the certain belief that he will be cured, and whose expectation has been redoubled by the reports of others and his own faith as a Catholic, will obtain quite a different result from the man who goes without faith. This is exactly the case with people treated by any form of "Christian Science."

It is not always possible for a physician to implant this belief of his personal power, however great his patient's faith in him may be. Hypnotism is a means of attaining this end, in spite of opposition. We have to thank Liébeault, of Nancy, for having been the first to use suggestion methodically in the treatment of diseases. It is true that verbal suggestion was occasionally used by the old mesmerists. On the other hand, Braid did not recognize it. He believed rather that certain methods of inducing catalepsy, etc., influenced the distribution of blood, and he thought it likely that there were nervous changes.

Many people, unknown to Liébeault, had realized that, from a medical point of view, a state in which contrac-

tions and paralyses, pain, insensibility to pain, etc., could be induced and removed, must be of immense importance; but Liébeault, must be really regarded, as the true founder of systematic suggestion applied to medical treatment.

Of course, the difficulty of judging of the curative value of hypnosis is much increased by the hazy definition of "hypnotic suggestion." Thus, some oppose suggestive treatment, and some hypnotic suggestive treatment, while others object sometimes to suggestion in general, with or without hypnotism; the latter are right, in spite of their false point of view, because it is impossible to draw a sharp line between suggestion and hypnotism. There is hardly any doubt that hypnotism and suggestion will be gradually welded into one, because spontaneous, passing hypnoses appear to be often met with in ordinary life.

Let us now consider singly the main objections made to hypnotism as a curative agent.

A chief objection was made by Ewald, of Berlin, who protested emphatically against the expression "medical treatment by hypnotism." He said that medical treatment meant the medical art and medical knowledge, and that every shepherd-boy, tailor, and cobbler could hypnotize; only self-confidence would be necessary. But has not medicine drawn a countless number of its remedies from the crudest empiricism, from the traditions of the 'shepherd-boys'? Cannot every cobbler inject morphia, apply blisters, and give aperients if he has the material? Yet we do not despise these remedies, nor baths, nor

massage, etc. On the other hand, it would be a grievous mistake to believe that a delicate agent like hypnosis, which affects and modifies the highest activities of our minds, could be manipulated by a shepherd, or ought to be handed over to him. Medical science and psychological knowledge, the ability to diagnose and practice, are all necessary to its use. Long enough, much too long, science has left the important phenomena of hypnosis to irresponsible and ignorant stage-operators; it is high time to make up for the delay, and for conscientious searchers after truth to devote themselves to a thorough examination of the series of phenomena which may complete our views of the psychology and of the physiology of the brain.

A second objection often called forth is the danger of hypnosis. This point must be seriously weighed. Now, one may truthfully affirm that there are few remedies in medicine which would not injure if carelessly and ignorantly used. There are even medicines which may injure, however carefully used, because we do not know exactly under what conditions they become hurtful. We need not speak of morphia, strychnine, and belladonna, which has sometimes done injury even when the maximum dose was not surpassed, nor of the deaths from chloroform, the reason of which has not been explained. A number of deaths have resulted from the use of potassium chloride. Severe collapse has been observed after the use of antipyrine. Let us add to these the name of another comparatively recent sleep-producer—sulfonal—which is supposed to be a perfectly harmless hypnotic drug. And again, as to the treatment by suspension (or

temporary hanging by the neck) which has lately become almost a fashion, as a cure of locomotor ataxy. It is now certain that it may cause great injury, or even death. And Billroth has lately pointed out great dangers from carbolic acid, which is constantly used. If we gave up prescribing these remedies we might give up medicine altogether, as everything employed may do harm.

Of course, whether there are dangers in the use of drugs or not, is not the question. Rather we must ask: 1. Do we know under what conditions appears the danger supposed to lurk in hypnosis? 2. Can we remove these conditions and the consequent danger? 3. And if we cannot, does the advantage to be gained by the patient outweigh the danger he runs?

The answer to these questions is decidedly in favor of hypnotism. We know perfectly well under what conditions it is dangerous, which we do not know about some drugs. We are able in certain cases to exclude these conditions by using certain harmless methods, and thereby minimizing, if not entirely excluding danger. As a matter of fact the small discomforts to which the patient is exposed—a short headache, watering of the eyes, and depression, are as nothing compared to the advantages which may result from the hypnosis.

However, we by no means deny that there are certain dangers in the improper use of hypnotism. Whoever has seen the difference between a subject who has received an exciting suggestion and one who has received a soothing one, will agree that as much good can be done in one way as harm in the other. A man who makes absurd suggestions to amuse himself and satisfy his curiosity,

without a scientific aim, need hardly be astonished if he produces ailments. We cannot warn our readers too emphatically against such sports. Can we be astonished that a person who has been suddenly awakened from hypnosis during an imaginary fire should feel ill after it? Such suggestions should not be made at all, or with the greatest caution, taking care to do away with the suggestion and soothing the subject before the waking. This is the most important point, for, even if these mistakes are made, they are of little consequence, provided the subject is thoroughly and properly wakened. Operators are not at all aware that they should do away with the suggestion entirely. They think it enough to blow on the subject's face, and are astonished that he does not feel well after it. It is surprising that more mischief is not done in consequence of insufficient technical knowledge. It is this that is dangerous—not hypnotism.

To show how a suggestion should be done away with, let us suppose that an exciting suggestion has been made to a subject, who is disturbed in consequence. One should say something like this: "What excited you is gone; it was only a dream, and you were mistaken to believe it. Now be quiet. You feel rested and comfortable. It is easy to see you are perfectly comfortable." Only when this has succeeded should the subject be awakened; nor should this be done suddenly; it is far better to prepare the patient for waking; the best operators generally do it by saying, "I shall count up to three. Wake when I say three." Or, "Count to three, and then wake." They often add (and this is also important), "You will be very comfortable, happy, and contented when you wake."

We have spoken of the nervousness which hypnotism is supposed to produce, and have tried to show that it is not hypnotism which causes it, but its improper use. These rules should especially be followed: 1. To avoid continuous stimulation of the senses as much as possible. 2. To avoid all mentally exciting suggestions as much as possible. 3. To do away with the suggestion carefully before the awakening. The proper method will not cause nervousness.

The real dangers of hypnotism are: the increased tendency to hypnosis, and the heightened susceptibility to suggestion in the waking state. It may bring about the possibility of a new hypnosis against the subject's will, perhaps without his suspecting it, and the danger of his accepting external suggestions even without hypnosis.

The last-mentioned danger can be guarded against by repeatedly making some such suggestion as follows to the subject before awaking him: "Nobody will ever be able to hypnotize you without your consent; nobody will be able to suggest anything to you when awake; you need never fear that you will have sense delusions, etc., as you do in hypnosis, you are perfectly able to prevent them." This is a wise, but not infallible, way to avoid the peril.

Such are the dangers of hypnotism, and such the methods of meeting them. All the schools agree on this point, that their antidote is suggestion, and that they are no hindrance to hypnotic treatment.

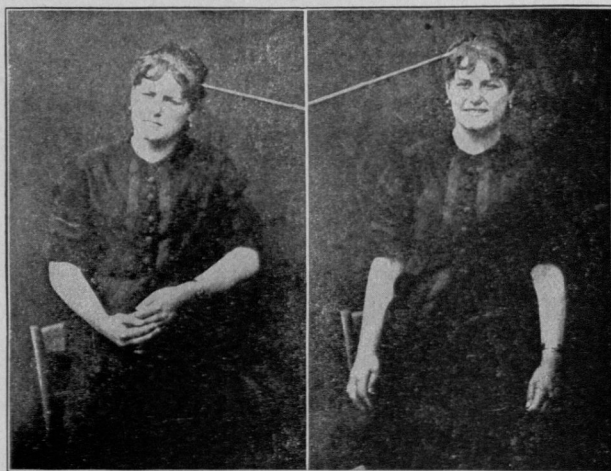
But it may be objected that though a short use of hypnotism may not be hurtful, a long one, involving a repeated induction of the state, might be so. This might also be said against the use of various drugs, since we do



In Love

SUGGESTION

In a Fury



TOUCHED WITH A STICK

Left side: Sadness

Right side: Delight

not yet know whether a long use of them might not cause severe chronic poisoning. Experience is the only way to decide such questions. Now Liébeault, who has used hypnotism, as a curative agent, for nearly forty years, has watched cases of long duration, without noticing any bad consequences. On the contrary, the hypnosis grew deeper, and suggestion consequently easier.

It is further added that the mysterious, somewhat uncanny features of hypnotism, should prevent its being used. Now, as a matter of fact, it ought to be perfectly indifferent to a practitioner whether a drug takes effect from the mysterious impression it makes, or through suggestion, or through chemico-physical influence. The point is that it shall act, not in what manner it acts.

Among the remaining objections to the suggestive methods of curing illness, the assertion that they do not produce any lasting improvement or cure may be mentioned. But it is not so; on the contrary, a large number of lasting cures have been observed and published. Even were this so we must still rejoice to have found a way of procuring temporary relief. In any case medical science is not yet so far advanced as to give us the right to reject a remedy merely because it has often proved of temporary value. Besides, from some methods of treatment nothing but a temporary improvement is expected, and yet it is considered to prove the worth of the method. How often it happens that a patient who has benefited by a stay in Carlsbad or the Hot Springs, Ark., etc., is recommended by his doctor to go back there when his ailment returns, because his health was improved the first time.

Another objection is that hypnotism cannot be generally applied because everybody is not hypnotizable, and, also, that in many cases, even when a hypnosis is induced, it is not deep enough to be used therapeutically. But is it not the same with other remedies? For instance, under some circumstances a journey to the French Riviera or to Alaska are supposed to be excellent remedies. Many more people can be hypnotized than can be sent to these far-off points of the compass.

Now let us see what troubles are particularly amenable to hypnotic treatment and benefited by it.

So far as we have hitherto been able to judge, *nervous disorders* not founded on anatomical derangements are the troubles most frequently affected by hypnosis. Particularly suitable ones, are headaches, stomach-aches, ovarian pains, rheumatic and neuralgic pains; sleeplessness; hysterical disturbances, particularly paralyses of the extremities and aphonia, (loss of voice); disturbances of menstruation; spontaneous somnambulism; uneasy dreams; loss of appetite; alcoholism and morphinism; stammering; nervous disorders of sight; singing in the ears; prolonged cases of chorea; St. Vitus' Dance; agoraphobia, (a nervous dread of crossing open spaces); writer's cramp, etc.

Hysteria is not easily curable, though improvement may be obtained in the symptoms, by hypnotism and suggestion as by any other method. But a sound brain is above all things necessary for hypnosis; the sounder it is, the sooner we may hope for results. In hysterical patients the brain is often by no means sound. For the same reason it is difficult to treat insane persons by hypnotism.

However, improvements have been obtained in the lighter forms of mental disease, such as melancholia and mania.

With regard to *organic diseases*, in which we find anatomical changes in the organs, as opposed to functional derangements, we have before us a number of accredited observations, from which it follows that the consequences of the disease could be partly removed by hypnosis. If suggestion does nothing but reduce the pain, an important improvement in an organic complaint has been secured; this has frequently succeeded in cases of articular rheumatism.

Among other diseases accompanied by organic injury, a very painful eczema of the ear, in a child of eight was made painless by post-hypnotic suggestion. The child in question could not bear the slightest touch. An order given in his first hypnosis had such an effect that he could afterwards endure a strong pressure on the spot.

What are the counter-indications against hypnotic treatment, *i.e.*, what *conditions forbid the use of hypnotism*? The leading hypnotizers in the medical profession say that they do not know of one. But it may be that when certain phenomena produced by auto-suggestion cannot be avoided the use of hypnotism is counter-indicated. However, the desired curative effect is of so much more importance than a chance attack of hysterics, etc., that in general a careful, well-informed operator should not allow himself to be restrained by it. In any case there are no more counter-indications against this treatment than against any other.

Methodical suggestion is the key to curative hypnosis. When the hypnotized subject refuses the suggestion, which sometimes happens, the mysterious impression may be ever so great, and yet no therapeutic result will be obtained. On the other hand, people have been influenced hypnotically or suggestively though they did not believe they were hypnotizable; however they opposed no resistance and were simply very much astonished when they woke up to find they had been hypnotized, and benefited by the hypnosis.

Misrepresentation has aroused so much distrust of hypnotic treatment that in some cases there is no confidence at all. But the immense power of hypnotic suggestion is shown by the fact that it succeeds in a large number of cases in spite of mistrust; for mistrust is a powerful auto-suggestion, and auto-suggestion is the greatest foe of external suggestion. The success of hypnotic suggestion will be greater the more distrust disappears in the general public, and when it has been recognized that hypnotism properly used is as harmless as electricity properly used. Hypnotism and suggestion will outlive many remedies whose praises fill the columns of medical journals at present.

It has been asked whether hypnotism and suggestion are of real value to the art of healing. To answer this we must consider whether a larger number of patients are cured or improved by this means than by exclusively physical and chemical treatment. It is difficult to decide. If we suppose that 50 per cent. are cured or improved by the usual treatment—which is by no means the case—and that 2 per cent. are cured or improved by suggestion,

these figures would not mean much, as the percentage would only be raised from 50 to 52. But if we suppose that by the ordinary methods only 1 per cent. of functional neuroses are cured or improved—which is nearer the truth—and that 2 per cent. are cured or improved by suggestion, this would be a great progress, since the percentage would be raised from 1 to 3 per cent., *i.e.*, the number of successfully-treated patients would be tripled. And with such possibilities is it not worth while to give hypnotism a chance to remove or alleviate disease?

In most cases *preparatory* experiments are necessary. The first trials should only be continued for a few minutes. If they are unsuccessful the stronger methods should be tried, especially, fixed attention.

As violent pain often prevents hypnosis, it is better to choose a time when the subject is free from it for the first attempt. Hypnosis will be easily induced later, even in the midst of violent pain. It is generally necessary to repeat the suggestion occasionally, after improvement or cure has been obtained, to prevent the return of the symptoms.

Hypnotism does not necessarily succeed at once. If the hypnosis is deep a result may be very quickly obtained; in other cases patience and method are wanted, and the time the illness has lasted must be taken into consideration. The more the idea of pain has taken root, the more difficult is it to overcome. Here again a strong auto-suggestion has to be replaced, conquered, by a stronger external suggestion.

Hypnotism should not be regarded as a sort of last

hope in the treatment of diseases. It is the duty of every one who believes that hypnotism is harmless when properly applied to use it where he thinks it will be of service, and before it is too late. Many diseases become incurable simply because they are not rightly treated at first.

Of course, care must be taken to examine the peculiar characteristics of every patient. Men are no more alike mentally than physically, and their mental differences are even greater than their bodily ones. Therefore it is only natural that operators who have psychological knowledge should succeed, while others, who treat by hard and fast rule, fail. The investigations of many authors show what results may be obtained by a clever use of suggestion; they have succeeded in most unpromising cases. It is incomprehensible why some people deny the therapeutic value of hypnotism simply because their own few experiments have failed. It is the same with all instruments; a practiced operator succeeds where an unpracticed one fails. So an experienced and conscientious hypnotist will remove ailments by suggestion, while an unpractised one may induce them from want of experience. It is certain that people who are suggestible and easy to hypnotize may be influenced by any one. But in more difficult cases, a doctor, who has experience and psychological knowledge, will succeed where others fail.

There is, of course, no need to cease using other means, while hypnotism is being used; on the contrary, in each case the indications must be followed. Suggestion will not supplant other methods of healing, but complete them.



Under the External Influence of Pepper.

Naturally, whatever might make suggestion ineffectual, must be avoided; and, before all, the *fear of hypnosis*. There is no doubt that this may do more injury and produce more unfavorable effects than hypnosis itself. Therefore it is advisable not to use it when the patient is excited and frightened about it; in fact any kind of over-excitement may make suggestion ineffectual.

It is now evident that the study of hypnotism will much enlarge our point of view in many ways; we shall be able to solve many a riddle that has puzzled us. As it has been proved that even organic changes can be caused by suggestion we shall be obliged to ascribe a much greater importance to mental influences than we have hitherto done. Thus the diseases which are generally called imaginary, but which are not really so, will become curable. Improper surroundings cause or increase many maladies. There are few people who are not impressed when they are assured on all sides that they look very ill, and many have been as much injured by this cumulative mental process as if they had been poisoned. Just as suggestion can take away pain, so it can create and strengthen it. It is small comfort to call such pains imaginary; for even if the pain is "only imaginary" it troubles the patient as much as if it were real.

As a matter of fact, this expression "imaginary pain," which is used by physicians as well as laymen, is scientifically false. One author has excellently compared "imaginary pains" with hallucinations. Now we can say that the hallucinatory object is imaginary, but it is false to say the perception is imaginary; it remains the same

whether the object is imaginary or not; so does the pain when it is felt whether or not the physician is able to detect a physical cause for it. We may call such a pain, without objective symptoms, what we please, but we may be sure that it is a necessary consequence of some positive disturbances. Certain subjective ideas cause pain as much as a penetrating thorn causes pain. The removal of these is as much the doctor's affair as taking a thorn out of the foot.

Suggestion is not only a key to the origin and aggravation of maladies, it also explains *the working of drugs*. If medicines have different effects when prescribed by different doctors, we shall not find the cause of this in chemical differences. We should rather ask if the manner of the prescription, the impression made by the doctor, and other mental factors have not some effect; it has been proved in many cases. In future, practitioners will have to consider this influence of unconscious suggestion as of much more weight than they have done so far. Some ascribe the efficacy of homoeopathy to suggestion, and, doubtless we believe that many of the successes and failures of allopathy may also be laid to the account of suggestion. When the practical importance of mental influences becomes more generally recognized, psychology and psychical therapeutics will be the basis of a rational treatment of most troubles originating in the nervous system. The other methods will have to group themselves around this; it will be the center, and no longer a sort of Cinderella of science, which now admits only the influence of the body on the mind, and not that of the mind on the body.

The peculiar physical and mental state induced by hypnosis has led to some most curious discoveries concerning the influence and use of drugs on the human organism. Dr. Luys whose name has come so frequently under our pen, all through this volume, has been the leader, if not the pioneer in this line of researches, the results of which have aroused passionate controversies in the medical world. Dr. Ernest Hart, of London devoted a clever book to an adverse discussion of Dr. Luys' experiments, and the two worthy scientists exchanged the expression of their thorough distrust of each other's conclusions. The fact remains however that the late illustrious chief of the Charité Hospital School has presented a series of experiments the interest of which is positively thrilling. Let us give it a page or two of illustrated explanation.

The excessive *impressionability** of trained hypnotic subjects induced Dr. Luys to try many tests upon the various emotions that may be brought about by suggestion. There is no doubt in the mind of hypnotizers that the five senses and even the intellect of the subjects of this class are developed to such a fine point that, during the trances, they are influenced by causes that would produce no effects whatever upon persons in the waking state. Without following Dr. Luys into the progressive development of this line of thought, we reach at once his statements concerning the strangest of these phenomena.

"I have come to the conclusion," writes the learned professor † "that certain drugs and poisons, placed in

* Excessive susceptibility to impressions.

† We do not give the exact words of Dr. Luys, but a trustworthy resumé of several chapters of his books.

sealed tubes, either close to the skin or even at a distance of from 3 to 5 inches from a subject in the hypnotic state, produce upon him exactly the same physical effects as if he had absorbed them in the regular way. Thus morphine has caused sleep; alcohol, various manifestations of drunkenness; ipéca, vomiting; strychnine, convulsions; musk, delight; assafoetida, disgust; chloral, sleepiness; infusion of coffee, exhilaration; absinthe, drunken stupor; etc., etc. Stranger still, certain of these drugs, thus presented in sealed tubes, at some distance from the subject who is in ignorance of the contents of the said tubes, have produced different manifestations when presented to the right or to the left side. In my experiments I have studied the effects of 87 substances, both solid and liquid, and mostly drugs; in every case, photographs have been taken before beginning the experiment, while it lasted and immediately after the awaking of the subject. All necessary precautions had been taken to prevent the subjects from having any previous knowledge of the nature, properties or even names of the drugs contained in the tubes. In many cases the tubes themselves were of dark colored glass, and they were all identical in shape. The symptoms, in each instance, were witnessed by a number of doctors, medical students and physicists. The stage of the hypnotic sleep during which these manifestations took place was invariably the *deep lethargic state*. This is quite interesting, as in that stage of hypnosis no obedience to verbal suggestion is to be expected; it seems, therefore, that the nerves of the subject have been reached through some subtle processes yet unexplained. The dilutions of the drugs used

were quite weak, so as to avoid creating disturbances which it might have been difficult to quiet.

"In a number of cases, when the sealed tubes containing the drugs were made to touch the skin of the subject, the spot chosen was the nape of the neck, thus coming close to the upper-spine. As a counter-test, I have used tubes absolutely similar, but *empty*; and I have failed to notice any disturbance whatever due to the vicinity of the glass tubes. On the other hand, tubes filled with pure water have repeatedly brought out symptoms of hydrophobia (dog-madness), and had to be removed almost at once to prevent the outburst of convulsions such as are seen in this dread disease.

"People fond of everything that seems to belong to the realm of the occult, have tried to explain these strange phenomena by the conscious or unconscious working of the mind of the operator on that of the subject. They have claimed that the hypnotizer being thoroughly acquainted with the properties of the various substances, wittingly or unwittingly notified the mind of the subject in deep lethargy, of the symptoms that were expected of him; this transference of thought is sufficient in the opinion of these lovers of the marvellous to induce the phenomena which are puzzling the scientific world at large.

"To this I answer that experiments have been made that would not allow even such a problematical, mysterious thought communication between operator and subject to take place. I have proceeded as follows: Twelve tubes, some empty, some filled with various drugs, were carefully labelled, not with indications of their contents but simply

with numbers. Of course a written record was prepared before they were sealed. Neither tubes nor record were shown to me. I, then picked up at random one tube after another and notes were taken down of all forthcoming developments and phenomena. When the *seance* was finished, a comparison was made of these notes and the record of the numbered tubes. In every case, the tally was perfect, *i.e.*, the symptoms expected had been observed just as if I had known, and the subject had been told beforehand, the contents of each tube. No deception could possibly take place under these minute circumstances—not even self-deception.”

We do not think it necessary to give more space in this volume to the narrative of these curious experiments. They do not really belong yet to the regular Practice of Hypnotism, and have to go through many more years of study and re-examination before their therapeutic value can be considered final and positive.

The Use of Hypnotism in Surgery has already been mentioned. Its use in inducing analgesia is not new; one inventive genius even imagined that God took the rib from Adam while he was in a hypnotic sleep, since he would certainly have waked had it been a natural one. The first methodical surgical operations in the magnetic sleep were begun in 1821, by Récamier. Such operations were often performed in the Paris hospitals under the direction of Baron du Potet. Mesmerism has since occasionally been used for the same purpose. Cloquet used it in 1829. He related his experiences to the French Academy of Medicine, but Lisfranc, the celebrated sur-



Under the External Influence of Strychnine.

geon, put him down for an impostor or a dupe. Oudet was no better received in 1837, when he told the Academy of the extraction of teeth in the magnetic sleep; and yet its use in American dentistry is now frequent and oftentimes successful.

In 1846 Esdaile performed a number of operations during mesmerically induced analgesia in the hospital at Calcutta. The wounds are said to have healed very quickly. Hellwald also draws attention to the quick healing of the wounds of the Arab pilgrims which are made in the hypnotic state. Elliotson at the same time was using mesmerism in London. Braid, who was much struck by Esdaile's results, also used hypnotism in surgery. Azam brought Braid's method of inducing analgesia to Paris; from thence it passed to Germany, but found little support. Preyer says that military doctors and others appear often to have used empirical hypnotizing methods for small operations, such as tooth-drawing. A number of prominent surgeons in Europe and America have lately performed surgical operations in hypnotic analgesia, and similar experiments take place every day, more or less successfully.

As a matter of fact the value of hypnotism for inducing analgesia is not very great. It cannot sometimes be induced at all, and sometimes only after repeated trials. The excitement before the operation increases the difficulty. At all events, the cases in which hypnotism can be used to make an operation painless are very rare; the care with which every such case is registered by the daily press shows this. Besides as long as we have easy means of in-

ducing analgesia—ether, cocaine and chloroform, which, however, occasionally kills the subject—hypnotism is little likely to be used. The limited number of hypnotizable subjects will always be against the introduction of this method of creating insensibility to pain; but when, by chance, a person who is to undergo an operation is found to be susceptible, there is no reason why hypnotism should not be used. Hack, Tuke and Forel think that hypnotism should be used in all cases where chloroform would be dangerous.

Cases in which analgesia is induced by post-hypnotic suggestion, and the operation performed in the waking state, have not been satisfactorily authenticated, so far.

The value of hypnotism in obstetrics* is about the same as in surgery. Lafontaine and Fillassier among the mesmerists have put women to sleep during labor. Liébeault has done the same with hypnotism. A series of such cases has been lately published. The effects were not unfavorable. The pains were regular and strong, and could often be made almost insensible by suggestion.

We wish to say something here regarding the *Use of Hypnotism in Education*. This, however, belongs rather to pathology, though such distinctions are rather arbitrary. For example, a child gets chorea † through imitating other children who have it. In such a case it is not easy to say where the bad habit leaves off and disease begins. The cures of Bérillon, who treated successfully

* The practice of midwifery.

† St. Vitus Dance.

various little tricks and bad habits in children by hypnotic suggestion, may be reckoned among regular medical practice. It is indifferent whether we say that hypnotism is used in such cases to cure disease or in the interests of education; the point is, to know what is meant. Serious observers have by no means wished that hypnotism should be introduced into schools, when they have approved of suggestive treatment being used by doctors to suppress the bad instincts of children. When an anonymous German author thought he made the thing ridiculous, or refuted French authors by banishing hypnotism from the schools, he simply refuted an assertion that was never made. The French authors merely meant that certain faults in children, which are purely pathological, should be cured by medical hypnotic suggestion, particularly when other methods had failed.

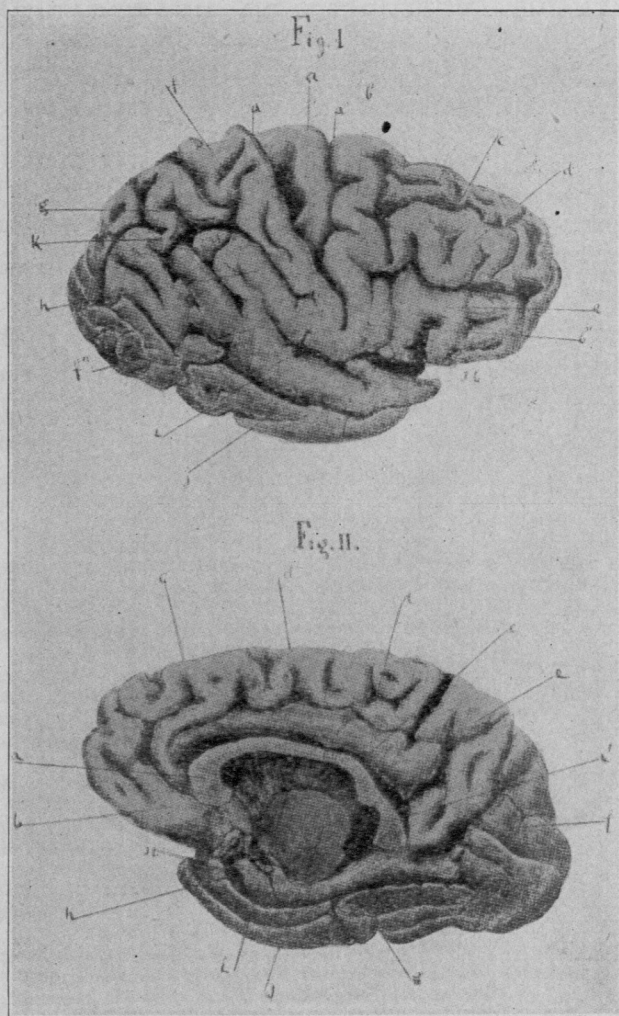
The frequent objection that children would thus become machines instead of independent creatures is erroneous. Hypnotic suggestion and suggestion out of hypnosis, that is the good advice of parents and teachers, have the same aim: not to reduce the amount of will-power of the subject but to cause it to work in a certain direction. He is to do right, not unconsciously and mechanically, but with a conscious will, which has got its impulse either from hypnotic suggestion or ordinary education.

Education is only good when what is taught grows into an auto-suggestion; *i.e.*, when in particular cases the well-taught person must consciously do the right he has been taught to will. Just in the same way, hypnotic suggestion is good only when it turns into auto-suggestion;

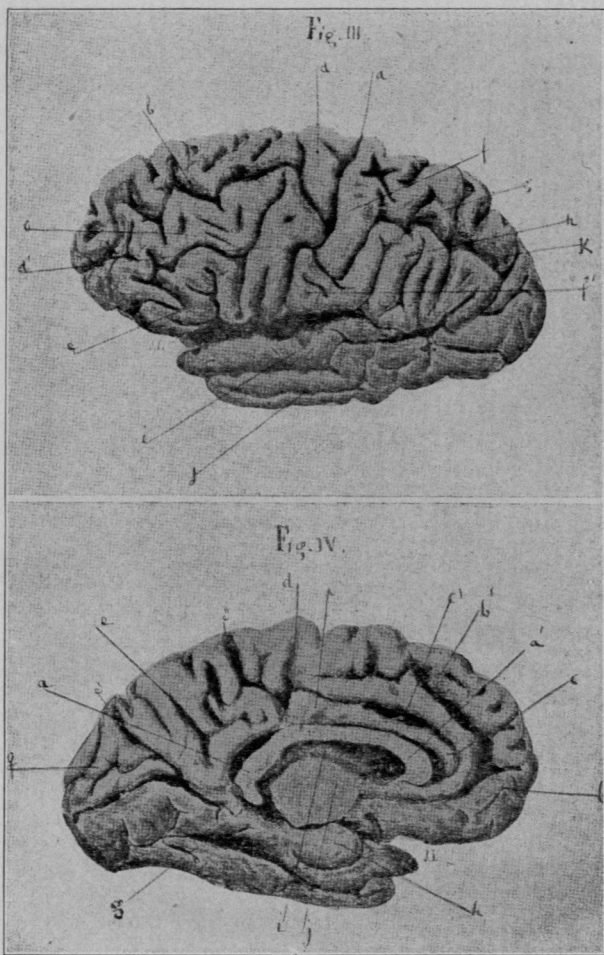
that is, when the same thing happens as without hypnosis. Otherwise no cure would be lasting. The change, whether physical, mental or moral, must become a settled habit before the beneficent result may be said to be secured.



Under the External Influence of Morphine.



THE BRAIN
of a Hysterical subject very easily placed under hypnotic influence.
(Other side.)



THE BRAIN

of a Hysterical subject very easily placed under hypnotic influence

a, b, internal frontal circumsolutions; *c*, calloso-marginal circumsolution, *d*, paracentral lobe; *e*, square lobe of exaggerated proportions; *f*, cuneiform lobule; *g*, fusiform circumsolution; *i*, striated part; *j*, optic layer. Between the anterior and exterior edges of the *Rolando's furrow*, an abnormal triangular lobule was found incrustated.

VOCABULARY OF SCIENTIFIC TERMS

USED IN THIS VOLUME

- Agoraphobia**—A morbid dread of crossing open spaces.
- Agaphia**—A nervous loss of power of expressing ideas in writing.
- Allopathy**—Old style medicine, based on the use of remedies producing symptoms opposed to those of the disease.
- Amnesia**—Loss of memory, such as occurs generally on awaking from hypnotic sleep, when the subject remembers nothing said or done by him or to him during hypnosis.
- Anæmia**—Poverty or deficiency of blood, causing general weakness of the system.
- Anæsthesia or Anesthesia**—Diminution or loss of the physical sense of feeling.
- Analgesia**—Insensibility to physical pain.
- Anatomy**—(1) The structure of an organized body. (2) The science or art of dissection.
- Aperient**—A gentle purgative medicine.
- Aphonia**—Loss of voice.
- Apoplexy**—Loss of consciousness due to rupture of a blood vessel in the brain; or some other cerebral shock.
- Ataxia, Locomotor**—Inability to command over one's movements; more particular over the movements of the legs, due to brain or spinal disorder.
- Auto-Hypnosis**—Hypnotic state induced spontaneously, especially in people who have been frequently hypnotized by others.
- Automatism**—The state of the hypnotic subject who obeys suggestion.
- Auto-Suggestion**—Suggestion self-induced without external influence.
- Braidism**—First name given to hypnotism; from Dr. James Braid.
- Cardiograph**—An instrument devised to note automatically by curves on a sheet of paper, the movements of the heart.
- Catalepsy; Cataleptic Stage**—The second stage of hypnotism in the Luys diagram, characterized by rigidity of body and limbs.
- Chorea**—The St. Vitus' dance, a peculiar nervous trouble.
- Clairvoyance**—A supposed mesmeric state of mind or body (or both) that allows the subject to see through opaque objects, through space, through time past and present.
- Consciousness**—The state of being aware of the nature of one's physical, mental and moral doings.
- Consciousness, Double**—A condition in which the subject seems to be divided into two beings, one under the suggestive influence of the operator, the other in full possession of personal will.

Contraction, or Contracture—A permanent or temporary shortening of a muscle.

Cutaneous—Pertaining to, or affecting the skin.

Credivity—Excessive credulity developed in the subject through hypnosis.

Dehypnotization—The process of awaking the subject from any of the hypnotic states.

Diagnose, To—To determine the symptoms of any physical or mental state.

Echolalie—The automatic repetition by a subject of words uttered within his hearing.

Epidermis—The outer layer of the skin.

Epilepsy—A persistent nervous disorder, characterized by loss of consciousness and convulsions.

Exteriorization—A mental process by which a mere idea is transformed into a hallucination of the object thought of.

Faradization—The stimulation of a nerve by induced electrical current.

Fascination—An intermediate hypnotic state, between the cataleptic and the somnambulistic stage, partaking of the characteristics of both.

Hæmorrhage—A flow of blood from blood-vessels.

Hallucination—A belief in an unreality; the illusory perception of some external thing or happening that does not exist or take place at the time.

Hasheesh—An intoxicating preparation from Indian hemp, which, either smoked or drunk in an infusion gives curious dreams or hallucinations.

Hemi-Anæsthesia—Anæsthesia [which see] extending only over one side of the body.

Hemi-Hypnosis—Hypnosis [which see] extending only over one side of the body.

Hemiplegia—Paralysis affecting only one side of the body.

Hibernation—The faculty or habit of certain animals to pass the cold season in a state of torpidity and absolute immobility, akin to lethargy.

Homœopathy—A medical system in which the remedies used—in very minute doses—are said to produce effects similar to the symptoms of the diseases under treatment. Opposed to *Allopathy*.

Hyperamia—Excess of blood.

Hyperaesthesia—A morbidly excessive sensibility; opposed to *Anæsthesia*.

Hyperexcitability—An abnormal degree of excitability, or excitability produced by the slightest cause.

Hypermnnesia—Extremely precise memory.

Hypnosis—The peculiar mental and physical state produced by *Hypnotism*; both words are, however, used one for the other.

Hypnogenic Zones—The points on the body, which, being pressed, are known to help induce hypnosis.

Hypnoscope—An instrument to test the degree of hypnotizability.

Hypnotism—The ensemble of the methods by which hypnosis is obtained; also used in the meaning of *hypnosis*; also this particular branch of the study of psycho-physiology.

Hypnotization—The act of inducing hypnosis.

Hypnotizability—The susceptibility of certain persons to hypnotic influence.

Hypnotist, Hypnotizer—The operator in the induction of hypnosis.

Hysteria—An unexplained nervous disease.

Hystero-Epilepsy—A form of epilepsy that includes many features of hysteria.

Inhibition—A restraint or interference in the exercise of the free will of the subject, due to suggestion, forbidding him to do certain things.

Lethargy; Lethargic Stage—The second in order of the hypnotic stages in Dr. Luys' diagram, the deeper one being the hypo-lethargic.

Magnet, Natural—The lodestone.

Magnet, Electro—An artificial magnet, owing its attractive power to an electric current passing through it.

Magnetic Force—The power of attraction of the natural magnet or electro-magnet. The same word is used by mesmerizers to indicate the power they claim to dispose of.

Magnetic Passes—Certain movements of the hands of the mesmerizer, the purpose of which is either to mesmerize or to demesmerize a subject.

Magnetizer—The same as mesmerizer or mesmerist.

Magnetism, Animal—The peculiar force or fluid said by the mesmerizers to emanate from the operator and penetrate the subject.

Mental Agency—The power of mind over body; claimed by the School of Nancy to be the basis of all hypnotic manifestations.

Mesmerizer, or Mesmerist—An operator in magnetizing or mesmerizing.

Mesmerism—Same as Magnetism [which see.]

Metalloscopy—The art of determining the influence of metallic surfaces upon the human system.

Metallo-Therapeutics—The external use of metals in the treatment of diseases; is closely related to hypnotism.

Morphinism; Morphinomania—The use of sulphate of morphia, or of in other forms, degenerating into an inveterate habit.

Myolitis—Inflammation of the spinal cord.

Neuralgia—A local, sharp, nervous pain.

Neurasthenia—Nervous debility.

Nosography—A description of disease.

Obstetrics—The science and practice of midwifery.

"Od"—["All penetrating," in Sanskrit.] The mysterious "fluid" believed by certain mesmerists to be the same as animal magnetism; also called "vital fluid."

Paralysis—A local impairment of the normal power of the nervous system; sometimes general.

Paraplegia—Paralysis of the lower limbs.

Passes, Magnetic or Mesmeric—[See Magnetic Passes.]

Pathology—The science of diseases; also the *ensemble* of the symptoms of a disease.

Physical Agents—Means to induce hypnosis which are not of a mental, or suggestive, character.

Physiology—The science of the functions of living things.

Polarity—The fact of having two poles, a *positive* and a *negative* one.

Polarization—The acquisition of polarity [which see.]

Psychic—Pertaining to the human mind.

- Psychology**—The philosophy of the human mind.
- Psycho-Physiology**—The science of the functions of the human mind in their connection with the functions of the body, and *vice-versa*.
- "Rapport"**—A French word used in connection with the word *en* (in) and referring to the state wherein a subject can be hypnotized only by one particular operator, or, once in the hypnotic sleep, is suggestible only through one person.
- Rigidity**—Peculiar stiffness noticed in the cataleptic stage of hypnosis.
- Sense-Delusions**—Same as *Hallucinations* [which see.]
- Sense Stimulus, or Stimulation**—An appeal to one of the five senses, often with the object of wearying it and thus inducing hypnosis.
- Sensibility, Elective**—The peculiar condition of a subject in the hypnotic sleep, who only obeys the suggestion of one particular person, generally the hypnotizer. [See *Rapport*.]
- Simulation**—In hypnotic matters, the voluntary or involuntary attempt on the part of the subject to present certain phenomena, which, in reality, are not induced by hypnosis or suggestion.
- Sleep, Natural**—Opposed to *Hypnotic Sleep*.
- Sleep, Hypnotic**—The same as *Hypnosis* [which see.]
- Somnambulism, Indifferent**—Condition of a subject who does not need, to enter the hypnotic sleep, or to obey suggestions, that the operator be one particular individual and no other.
- Somnambulism, Natural**—A state of spontaneous somnambulism. Opposed to *Hypnotic*, or *Induced Somnambulism* [which see.]
- Somnambulism, Induced**—The lightest stage in Luys' diagram of the hypnotic sleep.
- Sphygmograph**—An instrument to indicate by lines automatically traced on a strip of paper, the changes in the regularity of the pulse-beats.
- Stages, Hypnotic**—They are four in number, according to Charcot and Luys. Beginning with the deepest, they are named respectively: Hypo-Lethargic, Lethargic, Cataleptic and Somnambulistic.
- Suggestion**—In the study of hypnotic phenomena, the word is said to apply to the temporary control obtained over the subject's will.
- Suggestion, Inter-Hypnotic**—This is suggestion operating *during* hypnosis.
- Suggestion, Post-Hypnotic**—This is suggestion operating after hypnosis is over and the subject is awake.
- Telepathy**—Another word for "mind reading." The communication of one mind with another without the usual means of gesture, speech, or writing.
- Therapeutic**—Having a curative value.
- Therapeutics**—The art of treating disease.
- Transference**—In the study of hypnotic phenomena, this word refers to the transfer of certain physical symptoms from one side of the body to the other, or even from the subject to another person.

THE END.

