sion is that suggestion is a necessary factor in the induction of the hypnotic condition. That this is not true can be very readily demonstrated by reference to a few well-known and admitted facts. One of the first discoveries made by Braid was that by his methods the hypnotic condition could be induced in persons who had never seen or heard of hypnotic phenomena.

The following passage from that learned author seems to have been overlooked by those of his commentators who seek for evidence in his experiments to prove that suggestion is a necessary factor in the induction of the hypnotic condition:—

"In order to prove my position still more clearly, I called up one of my men-servants, who knew nothing of mesmerism, and gave him such directions as were calculated to impress his mind with the idea that his fixed attention was merely for the purpose of watching a chemical experiment in the preparation of some medicine, and being familiar with such, he could feel no alarm. In two minutes and a half his eyelids closed slowly with a vibrating motion, his chin fell on his breast, he gave a deep sigh, and instantly was in a profound sleep, breathing loudly. . . . In about one minute after his profound sleep I aroused him and pretended to chide him for being so careless, said he ought to be ashamed of himself for not being able to attend to my instructions for three minutes without falling asleep, and ordered him downstairs. In a short time I recalled this young man, and desired him to sit down once more, but to be careful not to go to sleep again, as on the former occasion. He sat down with this intention; but at the expiration of two minutes and a half his eyelids closed, and exactly the same phenomena as in the former experiment ensued."1

Now, whilst it is true that Braid did not realize the supreme potency of suggestion as it is now understood by the Nancy school, he did intelligently eliminate it in the experiment above related. It was his purpose to demonstrate his theory that "the phenomena of mesmerism were to be accounted for on the principle of a derangement of the state of the cerebro-spinal centres, and of the circulatory and

respiratory and muscular systems." In other words, he was seeking to demonstrate his theory that the phenomena of mesmerism are attributable to a physical rather than a mental cause. Hence his care to select a subject who knew nothing of what was expected of him.

Braid relates another circumstance equally demonstrative of the proposition that suggestion is not a necessary factor in the induction of the hypnotic state. He says:—

"After my lecture at the Hanover Square Rooms, London, on the 1st of March, 1842, a gentleman told Mr. Walker, who was along with me, that he was most anxious to see me, that I might try whether I could hypnotize him. He said both himself and friends were anxious he should be affected, but that neither Lafontaine nor others who had tried him could succeed. Mr. Walker said, 'If that is what you want, as Mr. Braid is engaged otherwise, sit down, and I will hypnotize you myself in a minute.' When I went into the room, I observed what was going on, the gentleman sitting staring at Mr. Walker's finger, who was standing a little to the right of the patient, with his eyes fixed steadily on those of the latter. I passed on and attended to something else; and when I returned a little after, I found Mr. Walker standing in the same position, fast asleep, his arm and finger in a state of cataleptiform rigidity, and the patient wide awake and staring at the finger all the while."2

This is a clear case of the induction of the hypnotic condition without the aid of suggestion. Mr. Walker had no thought of going into the state himself, but was intent on hypnotizing the patient. The suggestion in his mind was, therefore, in the opposite direction. He had, however, inadvertently placed himself in the proper attitude, and so concentrated his gaze as to induce the state, and that directly contrary to his auto-suggestion.

These two instances have been cited from Braid for the reason that (1) he was the discoverer of the method of hypnotizing by causing the subject to gaze steadily upon an object; and (2) he was not attempting to prove or disprove the theory of suggestion. His testimony is obviously all the more reliable for that reason, for one is prone to

<sup>&</sup>lt;sup>1</sup> Neurypnology, p. 18.

distrust the verity of experiments made for the purpose of sustaining a theory. Many facts have been recorded which demonstrate the proposition that by Braid's method the hypnotic state can be induced independently of suggestion. One class only of such facts needs to be cited to convince the most sceptical.

I allude to religious devotees, who are often thrown into the hypnotic state, even to the degree of ecstasy, by gazing upon the crucifix, or upon pictures of the Holy Virgin or of the saints. The Catholic clergy would seem to have a dim perception of the principle involved when they elevate the cross above the eyes of those in whom they wish to excite devotional enthusiasm. Be that as it may, the fact is of scientific value to the investigator of psychological phenomena. The natural attitude of prayer — the eyes raised towards heaven — is certainly not only conducive to devotional feeling, but, in emotional natures, to a state at least cognate to hypnotism, if not identical with it. Hence the subjective hallucinations which often result from the long and earnest prayers of religious enthusiasts.

More conclusive still is the fact that animals can be hypnotized. Albert Moll, who is one of the ablest, and certainly one of the most unprejudiced, of modern scientific writers on the subject of hypnotism, writing from the standpoint of the Nancy school, makes the following observations on the subject of hypnotizing animals:—

"States resembling, or perhaps identical with, hypnosis, are also found in animals, and can easily be experimentally induced. The first experiments of this kind are referred to by the Jesuit Kircher, — the so-called experimentum mirabile Kircheri. Kircher described these experiments in 1646; but according to Preyer, the experiment had been made by Schwenter several years earlier. The most striking of these experiments, which are being continued in the present day, is as follows: A hen is held down on the ground; the head in particular is pressed down. A chalk line is then drawn on the ground, starting from the bird's beak. The hen will remain motionless. Kircher ascribes this to the animal's imagination; he said that it imagined that it was fastened, and consequently did not try to move. Czermak repeated the experiment on different animals, and an

nounced in 1872 that a hypnotic state could be induced in other animals besides the hen. Preyer shortly after began to interest himself in the question, and made a series of experiments like Czermak's. Preyer, however, distinguishes two states in animals,—catalepsy, which is the effect of fear; and the hypnotic state. Heubel, Richet, Danilewsky, and Rieger, besides the authors mentioned above, have occupied themselves with the

"Most of the experiments have been made with frogs, cray-fish, guinea-pigs, and birds. I have made many with frogs. This much is certain: many animals will remain motionless in any position in which they have been held by force for a time. There are various opinions as to the meaning of this. Preyer thinks many of these states are paralyses from fright, or catalepsy, produced by a sudden peripheral stimulus. In any case they vividly recall the catalepsy of the Salpêtrière, also caused by a strong external stimulus."

The experiments of Kircher, above mentioned, were undertaken with a view of demonstrating his theory that animals possessed great powers of imagination. The chalk mark, he held, represented to the imagination of the hen a string with which she supposed herself to be bound. In his day, of course, nothing was known of hypnotism. It has since been demonstrated that the chalk mark has nothing to do with the production of the phenomenon. The same result follows when the chalk mark is omitted. The writer has hypnotized a pet rooster by Braid's method without using any violence whatever, or even touching the fowl. He was exceedingly tame, and it was only necessary to hold a small object directly before his eyes; when his attention was attracted, he would gaze steadily upon it, and in a very few minutes would go fast asleep. This could not have been a catalepsy caused by fright, nor could it have been the result of a belief in his inability to move, nor a peripheral stimulus caused by friction against the skin, nor could it have been suggestion. In fact, there is no legitimate conclusion apparent except that it was a true hypnosis, identical with that produced on human beings by Braid's methods.

This branch of the subject has been dwelt upon somewhat at length, not merely for the purpose of showing that the adherents of the Nancy school carry the doctrine of suggestion too far, but because it is an important point in the study of the subject, and throws a flood of light upon many important and perplexing problems, as will be seen hereafter. The principle to be borne in mind is this: hypnosis can be produced by Braid's method either with or without the aid of suggestion.

This does not militate in the slightest degree against the doctrine of suggestion when its powers and limitations are properly understood. It still remains true that all hypnotic phenomena subsequent to the induction of the condition are the result of suggestion in some form. This is the grand discovery of the Nancy school; and when it is once appreciated and understood, it will be found to constitute the master-key which will unlock the secrets of every psychological mystery. That it is unqualifiedly true no longer admits of serious doubt; it is acknowledged by nearly every scientist in the civilized world who has given the subject intelligent attention. It is true that the great name of Charcot has commanded a following; but however valuable may have been his observations in the infancy of the science, it has become obvious to most of his former followers that his fundamental hypothesis is defective, and that his conclusions are therefore necessarily unreliable.

The discussion of the merits of the Paris school will be brief, and will be chiefly confined to a statement of the reasons for considering its experiments and conclusions unreliable, and to pointing out a few of the more obvious sources of its errors.

The first source of error lies in the fact that the experiments of this school are made almost exclusively upon hysterical women. The assumption is that hypnotism is a nervous disease, and that the disease is found in its most pronounced form in hysterical subjects. That this proposition is unqualifiedly wrong is positively known to every student of hypnotism outside the Paris school, and needs

no further refutation than the bare statement that the experience of all other schools goes to demonstrate the fact that the best hypnotic subjects are perfectly healthy persons.

Another source of error lies in the fact that they ignore suggestion as a necessary factor in the production of hypnotic phenomena. Of course they are aware of the potency of suggestion when purposely and intelligently employed; but they hold that very many of the most important of the phenomena can be produced without its aid. These, however, are principally physical effects, such as causing any muscle of the body to contract by pressing upon the corresponding nerve, and then releasing the tension by exciting the antagonistic muscle. The condition necessary for the production of this phenomenon is called by Charcot, "neuromuscular hyperexcitability." In the able and interesting work by Binet and Féré, pupils of Charcot, a chapter is devoted to this branch of the subject. They record, with a scientific exactitude that is very edifying, many curious results in the way of causing contracture of various muscles by kneading, pressure, percussion, etc., releasing the tension by exciting the opposing muscles, and transferring the contractures from one muscle to another by the magnet. Then, with an ingenuousness that is truly charming, they add, as a "singular fact," that "contractures can be easily produced in many hysterical patients in their waking state, either by kneading the muscles, by pressure on the nerves, or by striking the tendons. These contractures in the waking state are, indeed, of the same nature as those which occur during lethargy, since they yield to the excitement of the antagonistic muscles, and may be transferred by the magnet."

After this admission it seems superfluous to remark that this class of experiments prove nothing more than that the state of neuro-muscular hyperexcitability is a pathological symptom common to hysterical patients, whether in the waking state or in hypnotic lethargy. They certainly prove nothing which can be construed as characteristic of hypnotism; and the Nancy school wastes its time in demonstrat-

ing that the symptoms cannot be reproduced in healthy persons except by the aid of suggestion.

Another serious error into which the Charcot school has fallen in its effort to eliminate the effects of suggestion consists in the assumption that subjects in the lethargic state know nothing of what is passing around them, either objectively or subjectively. No greater mistake is possible. The subjective mind never sleeps. No matter how profound the lethargy, it is ever alert, and comprehends instantly, with preternatural acuteness, everything that occurs. Professor Bernheim, in the preface to "Suggestive Therapeutics," makes the same assertion. He says:—

"One should first be aware of the fact that in all degrees of hypnosis the subject hears and understands everything, even though he may appear inert and passive. Sometimes the senses are particularly sharp in this state of special concentration, as if all the nervous activity were accumulated in the organ of which the attention is solicited."

The state of lethargy is that in which Charcot supposes his subjects to be incapable of receiving a suggestion. Acting upon that hypothesis, it is not astonishing that he should deceive himself as well as the students and spectators attending his clinic. He believes that they hear nothing when they hear everything. It is easy to see how every suggested phenomenon is promptly produced under such conditions. But there is one phenomenon of which the learned professor fails to note the significance, and that is, that, no matter how profound the lethargy, his subject promptly awakens at the word of command.

The simple truth regarding the experiments of the Paris school is in a nutshell. Its fundamental error lies in the assumption that hypnosis has a purely physical origin, and that the phenomena are explicable on physiological principles. The phenomena which can be produced independently of suggestion are purely physical, and depend upon the physical condition of neuro-muscular hyperexcitability. That this is true is shown by the fact that the physical phe-

nomena produced by Charcot upon his hysterical patients cannot be produced on healthy subjects without the aid of suggestion. But such experiments do not properly belong to the domain of psychic science proper, but rather to the Bradian system of physical manipulation. This is as much as confessed by Binet and Féré, when they divulge the fact that the physical phenomena in question can be produced on hysterical patients in their waking condition.

Another prolific source of error which besets the pathway of the Paris school consists in its disbelief in, and consequent disregard of, the possibility that its subjects may be possessed of clairvoyant or telepathic powers. That this frequently happens, especially in subjects of the character employed by Charcot and his coadjutors, admits of no possible doubt in the minds of those who have studied the higher phases of hypnotic science. The London Society for Psychical Research has demonstrated beyond all question the fact that telepathy is a power possessed by many; and the early mesmerists have shown conclusively that the hypnotic condition is the one of all others the most favorable for the development and exhibition of that power. This subject will be dwelt upon more at length in its proper place. It is sufficient for present purposes to remark that no line of experiments in hypnotism, in which telepathy and clairvoyance are ignored as possible factors, can be held to be demonstrative of any proposition or theory whatever. But whatever of pathological value or interest may be attached to the physical phenomena evoked by the Paris school, they certainly shed no light upon psychological science, nor do they properly belong to that domain.

And just here I wish to suggest a reform in the nomenclature of the science under consideration. The word "hypnotism" was adopted by Braid at a time when he regarded himself as the discoverer of a principle which embraced the whole science of induced sleep. It is from the Greek word "hypnos," which broadly signifies sleep. But, without some qualifying word, it is too broad, inasmuch as the system to which Braid applied it is now known to be

100 but one of many processes of inducing sleep. He imagined that he had discovered a full explanation of all psychic

phenomena of the class then known as mesmeric; whereas he had only discovered the one fact that the sleep could be induced by producing an abnormal physical condition of certain nerve-centres. It was a very important discovery, for psychic science would be incomplete without it; but it does not constitute the whole science. It does, however, explain many phenomena otherwise inexplicable, and marks a line of distinction which could not otherwise be drawn. The methods of the Charcot school are essentially Braidian, and hence its results are limited largely to physical phenomena, and its conclusions necessarily pertain

to physical science.

The Nancy school, on the other hand, produces all its phenomena by oral suggestion, and ignores the fact that the sleep can be induced in the absence of any form of suggestion. It repudiates Braid's method of inducing it as unnecessary, and also as injurious, in that the physical disturbance of the nerve-centres unduly excites the patient.

The mesmeric school differs from both the others in methods and theory, as we shall see further on.

It seems necessary, therefore, that the terminology of the science should be changed so as clearly to define the theoretical differences of the three schools. It is obvious, however, that the terminology cannot be based on results, for they are inextricably intermingled. Thus, the Braidian or Charcot operator might accidentally produce psychic phenomena identical with that produced by the mesmerists, and vice versa. And so might the suggestive school. Indeed, the writings of both schools occasionally betray the fact that they sometimes catch glimpses of something in their patients which defies chemical analysis, and cannot be carved with the scalpel.

The terminology must, therefore, refer to the methods of inducing the subjective state. If the word "hypnotism" is to be retained because it embraces all degrees of induced sleep by whatsoever process it may have been induced, it

would seem proper to designate the Braidian process as physical hypnotism, the Nancy process as suggestive hypnotism, and the mesmeric process as magnetic, or fluidic, hypnotism.

I merely throw this out as a suggestion to be considered by future writers on the subject. For my own purposes I shall hereafter employ the word "hypnotism" to define the Braidian and suggestive processes as distinguished from all others when these are contrasted, while the word " mesmerism" will be employed as it is generally understood. When they are not contrasted, "hypnotism" will be used as a generic term.

Last in the order of mention, but really first in importance, is the school of mesmerism. The theory of the mesmerists has undergone little, if any, modification since it was first promulgated by Mesmer himself. It is, as before stated, that there exists in man a subtle fluid, in the nature of magnetism, which, by means of passes over the head and body of the subject, accompanied by intense concentration of mind and will on the part of the operator, can be made to flow from the ends of his fingers and impinge upon the subject, producing sleep and all the varied subsequent phenomena at the will of the operator. In the early days of mesmerism suggestion was ignored as a possible factor in the production of the phenomena, this law not having been discovered previous to the experiments of Liébault. The same is practically true to-day. Mesmerism has made very little progress within the last half century. Its votaries cling to the old theories with a pertinacity proportioned to the opposition encountered at the hands of the hypnotists. On the whole, the progress of mesmeric science, per se, has been backward since the discoveries of Braid, - not because Braid disproved the fluidic theory, for he did not disprove it, nor did he claim to have done so, but for reasons which will appear in their proper place.

Suggestion is now, as before the discoveries of Liébault, ignored by mesmerists as a necessary factor either in the induction of the mesmeric condition, or in the production

of the subsequent phenomena. In this they are partly right and partly wrong. Suggestion, in the ordinary acceptation of the term, - that is, oral suggestion, - is not an indispensable factor in the induction of the condition. This is shown in a great variety of ways. One fact alone demonstrates the principle, and that is, that subjects who have been often mesmerized by a particular individual can be by him thrown into that state, under certain favorable conditions, even though the two may be many miles apart. Account is not taken in this of the many experiments of the old mesmerists, who previously informed their subjects of the intended experiment. But many instances might be cited where this has been accomplished under test conditions, the element of suggestion being carefully eliminated. The writer has mesmerized a subject at a distance of three hundred miles, and that under conditions which rendered oral or objective suggestion impossible. Particular instances will not be cited here, for the reason that in subsequent chapters of this book the principle involved will be rendered so plain that further proofs would be superfluous. A further demonstration of this principle lies in the fact that children, too young to understand what is expected of them, and animals of various kinds, can be mesmerized. This is abundantly proved by the experiments of Wilson, who, as early as 1839, mesmerized elephants, horses, wolves, and other animals in London. Obersteimer states that in Austria the law requires army horses to be mesmerized for the purpose of shoeing them. This process was introduced by a cavalry officer named Balassa, and hence it has been termed and is now known as "the Balassiren of horses" (Moll). This is the secret of the celebrated horse-tamers, Sullivan and Rarey. By their methods the wildest colts and the most vicious horses could be subdued in an hour. Mesmerism is the power exerted by the lion-tamer and the snake-charmer. The power is often exerted unconsciously, - that is, without a knowledge on the part of the operator of the source of his power.

The mesmerists of the present day are not, of course,

ignorant or unmindful of the potency of suggestion in the production of mesmeric phenomena subsequent to the induction of the condition. But, like the Paris school of hypnotists, they hold that suggestion plays a secondary rôle in the production of many of the phenomena. That they are wrong in this will more fully appear in subsequent chapters of this book.

The points of difference between the three schools of this science have now been reviewed, and the theories of each briefly stated. It is found,—

r. That the Nancy school attributes all the phenomena, including the induction of the state, to the power of suggestion, and that it is to the psychic powers and attributes of man alone that we must look for an explanation.

2. The Paris school, on the other hand, ignores suggestion as a necessary factor either in the induction of the state or in the production of subsequent phenomena, and seeks an explanation of the subject-matter on the bases of physiology and celebral anatomy.

3. The mesmerists ignore suggestion as a necessary factor at any stage of their experiments, and explain the whole on the magnetic fluid theory.

We also find three distinct methods of inducing the sleep; and as it is of the utmost importance to bear the different methods in mind, they will be here restated:—

The Nancy school, true to its theory, employs suggestion alone to induce the condition. Passes are sometimes made over its subjects after the manner of the mesmerists, but only with a view of giving an air of mystery to the proceedings, and thus adding potency to the suggestion.

The Paris school employs physical means to induce the state almost exclusively. They are practically the same as those employed by Braid, namely, causing the subject to gaze steadily at a bright object, — although many variations of the method have been introduced, such as flashing an electric light in the eyes of the subject, striking a gong without warning close to his ears, or by some peripheral excitation, such as rubbing the scalp, etc.

The mesmeric method proper consists in making passes from the head downwards, gazing fixedly into the subject's eyes, and concentrating the mind upon the work in hand, strongly willing the subject to sleep. It is true that many of the so-called mesmerists now employ Braid's method entirely, and others depend largely upon suggestion. But the true mesmeric method is as has been stated.



## CHAPTER IX.

HYPNOTISM AND MESMERISM (continued).

Mesmeric Methods. — The Fluidic Theory. — Influence of the Mind of the Operator. — The Early Mesmerists. — Their Methods and their Effects. — Decadence of the Higher Phenomena under Braid's Methods. — The Causes explained. — Telepathic Powers developed by Mesmerism. — Mesmerism as a Therapeutic Agent. — Method of Operation recommended. — How to acquire the Power. — The Necessary Conditions of Success. — Will Power explained. — The Fluidic Theory requires Revision. — Distinction between Mesmerism and Hypnotism sharply drawn. — Mesmerization of Animals distinguished from the Hypnotization of Animals. — Methods employed in Each. — Tamers of Horses and Wild Beasts. — Dog-Trainers. — Primitive Man. — His Powers. — His Immunity from Harm. — Daniel. — The Adepts. — General Conclusions.

THAT the magnetic hypothesis of the mesmerists has many facts to sustain it cannot be denied. The experience of thousands goes to show that when passes are made over them, even at a distance of several feet, a sensation is felt akin to a gentle shock of electricity, which produces a remarkably soothing effect upon the nervous system, and eventually produces the mesmeric sleep. It is also known that when patients are mesmerized for therapeutic purposes, and passes are made over the affected part, the same soothing effect is produced, and pain is relieved. In fact, if we consider mesmerism solely as a therapeutic agent, and study it from that standpoint alone, the fluidic hypothesis is perhaps as good as any. But when we come to study mesmeric phenomena as a part, and only a very small part,