

HYPNOTISM:

With Special Reference to its Phenomena as
Manifested in

HYSTERICAL SUBJECTS,

And its Application as a Therapeutic Agent.

INAUGURAL DISSERTATION

For the Degree of M.D., by

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Chapter I

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For a considerable time I used to regard Hypnotism as a subject not worthy of the attention of the medical Profession, but many interesting cases that I saw in the clinics on the Continent, notably in those of Professors Charcot & Rothsnigel of Paris & Vienna respectively, first led me to think that in hypnotism there was after all, something more than fraud & trickery.

Of late years, hypnotism has not been much studied in this country. This may be partly due to the fact that too much has been claimed for it:—e.g. at the Medical Congress held in London in 1881, certain experiments of Dr Beard of New York completely failed & this led to a long correspondence both in the *Daily* & in the medical papers. These experiments dealt with hypnotism & clairvoyance & naturally their failure gave rise to a good deal of scepticism on the whole subject of hypnotism. Then again public performances (which certainly ought to be prohibited by law following the example of several continental states) always contain a certain amount of deception & trickery & so help to increase the doubts about the reality of the phenomena.

Now a certain reaction seems to have set in & several papers dealing with hypnotism have appeared in the medical journals as well as books in English by Tuckey, Felkin & Kingsbury, & a committee has been appointed by the British Medical Association to investigate & report upon hypnotism. This report will be awaited with some degree of interest for to many a medical man hypnotism is a subject to be left entirely in the hands of charlatans.

Still the subject is not new, as far back as 1845 we find that Dr Esdaile while Presidency Surgeon at Calcutta was fully cognisant of the anaesthetising powers of hypnosis & performed over 200 operations, many of them of a severe nature, on natives while they were under its influence. Felkin considers that if chloroform & ether had not been discovered hypnosis would have been much wider known & used as an anaesthetic.



Chap. II

There can be no doubt that the knowledge of some of the phenomena of hypnosis (or as it has ^{been} ~~known~~ called at various times Mesmerism, Animal Magnetism Electro-biology &c.) is very ancient. In the British Museum there is a bas-relief from a tomb in ancient Thebes giving an illustration of a hypnotist on his subject.

The knowledge is also very wide spread among savage tribes in different parts of the world, & many of the manifestations of the witch doctor are due to its employment. Several examples are recorded by travellers. Again in India many of the performances of the Fakirs are done under its influence.

I do not intend to go fully into historical details but merely to give a short resumé. Some of the Continental writers e.g. Bernheim enter into particulars.

The advance of our knowledge may be fitly divided into two stages, as follows: —

E.g. "Sport & work on the Nepaul Frontier" p. 67.

the Mesmer's his theory of the Astral fluid, ending with Braid.

(6) From Braid's time till now.

(a) Most of the investigations during the first period were carried on in France. The general opinion at that time was, that the phenomena were due to some fluid which could be transmitted from one person to another, hence the name Animal Magnetism. Much was claimed for it at that time e.g. reading with eyes shut, by means of the pit of the stomach or the tips of the fingers. Commissions were appointed by the learned Societies of France to investigate the truth of the statements. In one of these commissions we find the names of B. Franklin & Lavoisier. The general verdict was quite unfavourable, declaring that there was no evidence whatever of any transmission of force or fluid. An interesting account of the commissions & their reports are given by Binet - Fére' (1)

(b) The second period dates from 1840 when Braid, the Manchester surgeon began to study the phenomena. He showed that it did not depend on any transmission of magnetic fluid or force from the operator. It is gratifying to note that he observed & described most of the phenomena which are known at the present time. A few years later the subject cropped up in America under the name of Electro-Biology. To Charcot & Heidenhain belongs the honour of putting the study of Hypnotism on a thoroughly scientific basis. The Clinician of Paris was naturally led to it by his investigations into the subject of hysteria, & the physiologist of Breslau by some public

(1) Op. cit. pages 13 - 26.

performances given in the town, which he was asked to explain. One great value of his investigations lies in the fact that they were made on trustworthy persons such as his brother & fellow-practitioners so that the element of deceit & simulation is reduced to a minimum. Dr Liebeault at Nancy, had been for a long time using hypnosis as a therapeutic means & was the real originator of the spreading school of "Psycho-Therapeutics" often known as the Nancy school, though Bernheim's name of late years has been more before the public in this connection.

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Chapter III

Before commencing the study of the phenomena it might be well to enquire into the number of persons susceptible to hypnosis. At present it is quite impossible to give a definite answer: statistics vary so much e.g. M. Liebeault of Nancy obtained results in 95% while on the other hand M. Seppilli gives the proportion of cases as 10%. Bernheim declares that no hospital surgeon who cannot hypnotise at least 80% of his patients, has any right to express an opinion on the subject of hypnosis. Fovet of Zurich agrees with this. As regards the high percentage given by the Nancy school it may be ^{questioned} mentioned if the lighter forms in which a considerable number of the patients are included can be correctly called hypnosis at all. Drowsiness is the first of the six stages of Liebeault. It is highly probable that most of us have experienced this symptom from some discourse or other without imagining for a moment that we were in the initial stages of hypnosis. In the Nancy classification, there are no real objective signs by which we can be sure that we are not being deceived by the patient. Moreover, at Nancy where hypnosis is

Nationality

:

Sex.

Age.

employed by some extreme enthusiasts as a panacea, the phenomena are quite well known to the people & occasion neither fear nor surprise, & patients going to the clinique know they will be subjected to hypnosis. Consequently those who don't believe in it stay away & we know that a sceptical mind is a great hindrance to the induction of hypnosis. Those who do go, see it applied to other patients first - some know that hypnosis like hysteria loses nothing in intensity when in the neighbourhood of other similar cases.

The results also vary with the *modus operandi*, as well as the number of times the experiment is tried. Boissin of the Salpêtrière has even carried the number of attempts to hypnotise insane persons to beyond 50, with ultimate success. No doubt the experience & confidence of the experimenter goes for something as well.

We find also that the susceptibility varies somewhat according to geographical situation; thus the inhabitants of Southern Europe such as the French, Spaniards & Italians are more easily hypnotised than those of the northern parts, English, Germans & Swedes. This is much as we would expect since the former are more nervous, & excitable & impressionable.

As regards sex, contrary to what is generally supposed we find that Bernheim's gives the proportions as nearly equal the exact figures being: - Women 19.4%. Men 18.8%

This refers to those in whom somnambulism can be induced.

The same table of Beaunis ^(quoted by Bernheim) shows that children are easily susceptible & that the susceptibility diminishes towards old age, though the proportion remains at a relatively high figure, (7-11% for persons over 63 years).

Bernheim (1) Op. cit. See table page 20.

The methods of inducing hypnosis are very numerous but may all be gathered into 3 groups.

- (a) Methods of the so-called magnetisers
- (b) Methods depending on physical means.
- (c) Methods depending on psychical means.

(a) The methods of the magnetisers are founded on the old fluid theory, the experimenter being supposed to influence the subject by transmitting by gestures & passes some of his own super-abundant magnetic fluid. Though the idea was false still the results were true hypnosis. In these cases this resulted probably from a combination of physical & mental stimuli. These methods are now only used by public performers.

(b) The physical methods are very numerous. Braid made the subject look at a brilliant object held near the eyes & slightly above their level so as soon to tire the muscles of the eyeball. This is the common method employed by most of the performers I have seen. Heidenhain often employed the ticking of a watch.

Among other physical methods may be mentioned the following:— a bright light, sudden & unexpected noise as that of a gun, light compression of the eyeball, gentle friction of the eyelids or nose, vibrations of a tuning fork, applications of a magnet &c. &c.

All subjects are not equally susceptible to all these different methods; they may be quite unsusceptible to some of these methods & easily influenced by others.

In most of these methods it may be noted that there is gentle & prolonged excitation of sensory nerves either special or general, though in some e.g. bright-light & sudden noise, the stimulation is sudden & violent.

To these methods may be added one described by Pitres of Bordeaux & confirmed by Gilles de la Louette. These authors describe certain

regions (Zones hypnogenes)⁽¹⁾ by the compression of these areas, the hypnotic sleep & waking may easily be obtained. These seem to be very similar to the Zones spasmodiques of hysteria.

(c) We come now to consider the psychological methods, Abbe Faria in France was the first to use this means. He simply commanded the patient to sleep repeating this for several minutes. The psychological method is the one employed by the Nancy school including Beaunis, Liebeault & Bernheim of Nancy, Forel of Zurich, Kraft Ebbing of Berlin & Bernheim⁽²⁾

Bernheim⁽²⁾ begins by assuring the patient that hypnosis will do him no harm but on the contrary may do him a lot of good, that it is a simple sleep & shows him one or two other patients put under its influence to give him confidence, then telling the patient to look at his thumb only of sleeping he adds "You are beginning to feel a heaviness in your eyelids your eyes are tired they are becoming moist, the sight is getting dim, the eyes are closing". Some subjects shut the eyes & sleep immediately; with others it is necessary to repeat laying more stress on the symptoms & continuing: "You feel a heaviness in your arms & legs, you don't feel anything you can't move your hands, you no longer see anything sleep is coming on." & then adding in a commanding tone "Sleep!"

We now come to consider how to awaken the hypnotized subject. In most cases it is quite sufficient to say "Awake" especially with subjects who have been several times hypnotized. If this is not enough it will be sufficient to blow once or twice on the eyelids or the eyeball. Very rarely is it necessary to have recourse to stronger stimuli, as the throwing on

(1) Pitres, *Op. cit.* Vol II p. 87.

(2) Bernheim *Op. cit.* Chap I p. 11

of cold water ...

We see that in this second means (the psychiatric suggestion) is the agent used. The production of hypnosis by means of suggestion may be brought about in many different ways. The suggestion may be indirect, e.g.: a person easily hypnotisable is told that when he counts from 1 to 6 he will fall asleep when he says "six" & this takes place.

Pitres mentions a curious fact, that some persons are easily susceptible to these indirect means while they are quite unsusceptible to direct suggestions or commands.

Suggestion may be given some time previously e.g. Charcot persuaded a subject easily influenced, that at a stated time next day he would hypnotise her from his house, she being at the Salpêtrière, at the given time next day, she became restless left her work & fell asleep, though Charcot had forgotten all about the experiment. Heidenhain has performed the same experiment.

Liégeois⁽¹⁾ has shown that subjects can be hypnotised by telephone or by letter, He sent the following note to a young lady whom he had formerly mesmerised: - "Madame, moins d'une minute après que vous aurez lu ces lignes vous dormirez, que vous y consentiez ou non. Vous vous éveillerez au bout de cinq minutes. Vous ne pourrez plus ensuite lire ce billet sans vous endormir pendant cinq minutes, - Dormez". The young lady after having read the note fell asleep.

A similar experiment was repeated at Leeds on March 28th 1890 by Dr Milne Bramwell in course of a demonstration on the use of hypnosis as an anaesthetic. A note was sent from Dr Bramwell to Dr Turner, telling him to give the patient an enclosed order which was as follows: -

(1) Liégeois. "De la suggestion et du somnambulisme" Paris 1889. p. 110 & 729.

"Go to sleep at once by order of Dr Bramwell obey Mr Turners commands - J Milne Bramwell." (1) The experiment was successful, During the sleep the patient had 16 stumps of teeth removed & awoke smiling, insisting that no pain had been felt. She obeyed all the dentists instructions such as to open the mouth, spit out &c. Of course in these cases, the subjects had been previously hypnotised a good many times.

These experiments are very interesting, showing that hypnosis can be obtained in certain persons by purely psychical influence. Still they dont prove the truth of Bernheim's assertion, that all hypnotic methods act purely & simply by suggestion. We find that he himself often uses physical methods as adjuncts, though he declares that they only help to fix the attention of the subject. He declares that the subject knows or guesses that he ought to sleep & sums up everything in the one word suggestion.

As regards this opinion certain facts seem to be directly adverse to it. No one denies that the role of suggestion is very important, & sometimes exclusive, but to say that sensorial excitations are only useful in suggesting the idea of sleep is surely going too far. Let us look at some of these facts, In an ophthalmic class in Vienna, when the patients are subjected to numerous examinations in a short time by different students I saw a patient who was unconsciously hypnotised by the reflection from the mirror after I had been examining her eye for some time. She was in a state of complete lethargy.

Moreover one can immediately hypnotise some subjects, not forewarned, by suddenly projecting on their face, a ray of electric light. I have several times at the Salpêtrière seen patients unexpectedly & in the middle of some occupation thrown into a state of hypnotic catalepsy.

(1) See Brit. Med. Journal, Vol I 1890. p. 801.

Hypnotic Education.

∴

Auto-hypnosis.

of the sudden sound of a gong behind them. Richer⁽¹⁾ relates the case of a patient who during a concert was thrice hypnotised by the sound of the big drum. Pitres⁽²⁾ relates how one of his patients became cataleptic in a crowd by the explosion of some bombs at a fireworks display, while a patient of Landouzy fell into a state of lethargy when without warning her of it or without her being able to see, he brought a magnet near her. There was no effect if the magnet was replaced by a piece of non magnetised iron. This reminds one of somewhat similar experiments performed by Charcot & others on hysterical patients which have given rise to much discussion. In cases such as these it is difficult to see where suggestion can come in.

Hypnotic Education.

There can be no doubt that there is a kind of hypnotic education, by means of which the susceptibility to the methods of hypnosis augments in proportion to the number of times that the patient has been subjected to it. This is especially true in the case of public performances, where the same subjects are experimented on, night after night where this education is carried to such an extent that a sign such as a word or movement of a finger from the performer is sufficient to throw all the subjects into a hypnotic sleep. Particular qualities in different subjects; this education may be developed to a high degree so that a single sign repeated night after night performing the same part either often leads erroneously to the idea of imposture.

We may here refer to two terms which are often used synonymously though they are perfectly distinct viz, spontaneous hypnosis & auto-hypnosis. The latter is produced when a person voluntarily hypnotises himself without the presence or help of another person, by fixation of the eyes &c.

(1) Pitres Op. cit. vol II p. 93.

Spontaneous Hypnosis.

Method recommended for beginners.

∴

Conditions for successful hypnotising.

This phenomenon has been known for a long time & it is probable that many of the manifestations of savage tribes are done under its influence. e.g. the "Ghost-dance" of the Dakotas, in which they dance in a ring producing a sort of insensibility so that they gash themselves with knives. This method is also employed by the India Fakirs & by the Gophalopsychics of Mount Athos who hypnotise themselves by gazing at their navels.

In spontaneous hypnosis of the other hand, the hypnosis comes on involuntarily, though also produced with the intervention of another person. Certain subjects who have been frequently hypnotised exhibit an awkward tendency to fall asleep without any apparent cause. Luckily such cases are rare & can be easily cured by suggestion.

Personally I have found that the physical method of inducing hypnosis is much better for beginners, as the slightest hesitancy or indecision in one's manner or voice is easily detected by the subject & is quite sufficient to render the attempt unsuccessful if the suggestive mode be tried. As one gains in experience & confidence he can use the suggestive method with more success. Nor have I seen any of the ill effects which Baierlacher says may follow the physical methods viz dizziness, headache or even convulsions.

For the successful hypnotising of a patient certain conditions are necessary. The patient must be willing to be hypnotised & have confidence in the hypnotiser, must be at perfect ease submitting entirely to his directions offering no cerebral resistance. Bernheim says that it is often quite impossible to influence people who make it their boast that they cannot be hypnotised. These people seem to offer a kind of counter suggestion. It often helps if the patient may happen to have seen others hypnotised previously.

Can a person be hypnotized without his knowledge or against his will. ?

Is it possible to hypnotize a person without his knowledge or against his will? It is of some importance to consider this question. As far back as 1820 we find two cases reported by General Voizet⁽¹⁾ in which he was able to transform natural sleep into hypnotic sleep without awaking the person. Recently Berger⁽²⁾ & others have been able to do the same by holding his warm hands close to the subject's head or by the application of continuous currents of electricity. These experiments have been repeated & confirmed by numerous observers eg. Berthelin & Liebeault⁽³⁾ We cease to wonder so much at this when we consider that in many cases it is possible if one can exactly catch the line of thought followed by a person talking in his sleep, to carry on a conversation with him for some time while he continues profoundly asleep. I have several times succeeded in this with my brother we thus see that it is sometimes possible for one person to put himself "en rapport" with another who is sleeping. In hypnosis this relation is exalted. There are some rare cases reported where hysterical patients have been suddenly hypnotized for the first time without their knowledge of some of the means already mentioned on page 6.

We have seen that the susceptibility increases with every seance so that soon a stage is reached where the subject is completely at the will of the operator & may be hypnotized whether he wishes it or not. I have several times seen persons who were unwilling to be experimented on, hypnotized by public performers. In some of these cases personal knowledge of the subjects permits me to affirm that in their case at least there was no simulation or deceit of any kind. It is necessary to add that these persons had been hypnotized several times before by the same person.

(1) Voizet:- Memoire sur le somnambulisme p. 93.
 (2) Berger:- Hypnotische Zustände ohne Genese, 1880.
 (3) Revue de l'hypnotisme Vol I p. 135

Lones hypus genes of Pitre

This is one of the great dangers of hypnotism, as a person who has been hypnotised frequently, is at the mercy of anyone who knows anything about hypnotism. Thus Charcot⁽¹¹⁾ relates the case of some schoolboys who used thus to hypnotise one of their number & send him to walk naked in the street or do other absurd things. So great may the susceptibility become that some persons fell asleep while looking at the fire or sparking a metal rod. Richet⁽¹²⁾ mentions the case of one of his patients who fell asleep when he entered the ward.

Luckily Bernheim & others show a way out of this difficulty. Suggestions should be given to the subject while hypnotised that it is quite impossible for him to be influenced by anyone except his physician. He says this invariably succeeds & gives a remarkable example. One day he tried to hypnotise a patient whom he had already done several times but to his great surprise failed. He called M. Liebeault to his assistance who succeeded at once. On enquiring the reason Bernheim found that several months before M. Beaunis had suggested to her that M. Liebeault & himself were the only ones who could hypnotise her.⁽¹³⁾

Then again hypnotisation may result from the unconscious excitation of the hypnogenetic zones described by Pitres. In Vol. II p 116 he gives details of a case which however is not quite conclusive in all its points. De la Tourrette mentions the case of a girl who was hypnotised by accidental presence on one of these zones situated on her elbow.

As these hypnogenic areas of Pitres are of some interest I may give some details about them. He defines these zones as follows: - "Circumscribed areas whose pressure has for result: - either instantaneously to produce

(11) Charcot, Revue de l'hypnotisme May 1887 p. 326.
 (12) Richet. L'homme et l'intelligence Paris 1886. p. 223
 (13) Bernheim. Op. cit. p. 413

the hyp. ... " " ...
 ... one or both sides of the body their number varying
 from 20 to 40 or 50 and are situated generally from 1-2 cm in
 diameter and often asymetrically placed, bearing no relation
 to the anaesthesia as generally found in hysterical patients.
 Sudden pressure is the best means of excitation but many
 others succeed. These zones are very similar to the hysterogenetic zones
 of hysteria indeed in some cases they co-exist so that light
 stimulation produces hypnosis while strong stimulation gives
 rise to hysterical convulsions. In these cases it is possible
 to separate the two actions, thus, electricity, ligatures, ther-
 e, cause the hysterogenetic action to disappear while
 they have no influence on the hypnogenetic action.

A strange peculiarity is sometimes met with in these cases
 viz that the patients themselves are able to press these zones
 without any effect. This however is exceptional. This would
 seem to imply that the result was not due to the physical
 stimulation since the same effects should always follow the
 same excitation whether produced by patients or not. Bernheim
 in accordance with his endeavours to explain the whole
 phenomena of suggestion maintains that these zones are the
 result of suggestions given consciously or unconsciously to
 the patient. Pitres however points out that we have
 several physiological phenomena analogous to the above
 e.g. a person may have very marked reflex phenomena when his
 soles are tickled by another person yet none when he
 tickles his soles himself. Undoubtedly these
 zones may be created or destroyed by suggestion, but that does
 not prove that they are always produced in that way.
 At present we can hardly look on the question as being
 definitely settled. No doubt in many cases mental

(1) Pitres, vol II Lesson 44. p. 97.

Charcoto division

impressions play an important part indeed sometimes the whole role but the physical element is also real and imaginary as some hold. These zones are generally found in hysterical-epileptic patients. I have never been able to discover them in any of the subjects I have experimented on who however were not markedly hysterical.

" "

Chapter V

We come now to study the phenomena especially as seen in hysterical subjects at a time when the very reality of hypnosis was doubted by many eminent authorities, ^{Charcot} took up the study of it & at first relegating the psychical phenomena to a secondary place he endeavoured to discover some objective signs which everybody could see & prove for themselves & which thus would constitute a material proof of the absence of all deceit & simulation. He found these signs chiefly in the neuro-muscular system: to these we shall refer later on. The phenomena are very diverse but Charcot["] establishes three types for the purposes of classification.

- (1) State of catalepsy.
- (2) State of lethargy
- (3) State of induced somnambulism.

In many cases these states may be & are only very imperfectly developed, only a few of the special symptoms being apparent; or the states may be mixed. This classification is not perfect as it does not include all the possible forms, but I believe that it forms the best working one that has been given, up till the present time. The division of the Nancy school into 6 stages by Liébeault⁽²⁾ or 9 by Bernheim⁽²⁾ seem to me to have the great fault of not taking into account any of the physical signs which are the only sure means of quite eliminating the element of simulation.

(1) Charcot. *Lect. 14. pp 299-304.*

(2) Bernheim *op. cit. Chap. I.*

Cataleptic state.

Each of these three states is capable of being produced (a) primarily by some of the ordinary means of hypnosis or (b) secondarily by transformation of one into the other by different methods about to be described.

The following is a resumé of the phenomena of each of these states

(1) Cataleptic state: - (This state can readily be induced in many animals, we will refer to this later on in more detail).

Produced^(a) primarily by a bright light or loud noise.

(b) secondarily by raising the eyelids of a person in the state of lethargy.

The subject remains motionless & looks as if fascinated. The eyes are staring with a peculiar blank look with tears often running over the cheeks, & very often there is anaesthesia of the cornea & conjunctiva. The limbs appear very light when one raises them & retain for a long time any attitude which may be given them. A cataleptic subject will remain for more than an hour with the body bent forward & the arms at right angles to the trunk, without manifesting signs of fatigue⁽¹⁾, while even a strong man will be exhausted in a few minutes. We shall see later on how to distinguish simulation by means of tracings taken by Marey's drums. The tendon reflexes are diminished or abolished & there is no neuro-muscular hyper-excitability. The pulse is generally a little elevated, the respirations shallow & separated by long pauses. There is general analgesia but certain senses preserve their function at least in part; the subject may imitate movements made before him if a question be put he does not give a reply but repeats the question.

On the other hand, the muscular sense seems to acquire an exaggerated degree of sensibility so that when the limbs & body are put into definite attitudes, the face takes a corresponding expression. These experiments I have seen

(1) Charcot. Lect. III p. 16.

several times performed by Charcot & they are very striking when seen for the first time. The following photographs illustrate this very well & are taken from the end of vol. 9. of Charcot's works.

Plate X shows the patient hypnotized & in the cataleptic state without expression. It is difficult to distinguish this from the natural state. Plate XI, shows the look of astonishment which comes over the face when the arms are raised to this position.

Plate XII, smile induced by the position illustrated. In Pl. XIII the fists are closed & the body put in a threatening position & the face assumes an expression of anger.

Plate X



Plate XI



Etat cataleptique sans expression. Etat Cataleptique, Suggestion par le geste: Etonnement.



Etat cataleptique Suggestion par le geste: Sourire

Etat Cataleptique Suggestion par le geste: Colère.

What is perhaps more strange is that the converse also holds good, i.e. if by means of electricity the muscles of expression be made to contract, the limbs assume a corresponding attitude. Thus by causing the muscles of anger to contract (the pyramideles nasi) under this influence alone the fists will close the arms assume a fighting attitude. As Richer⁽¹⁾ says "The contracted muscle of the motion of its movement which it sends to the brain by its centripetal nerves becomes in turn the cause of secondary movement either in other muscles of expression or in those of the limbs the result of which is to completely intensify the expression indicated by the muscle electrically excited."

(1) Etudes cliniques sur la grande hystérie. Paris 1886
p. 671

Lethargic state.

The automatic phenomena may be even more complex. If knitting needles be put into the hands of a woman while in this state she will execute all the co-ordinated movements of the act of knitting. so also if a roll of paper be given to a smoker, he puts it in his mouth searches in his pocket for a light - smokes it as if it were real. Pitres says that the cerebrum takes no part in the production of these phenomena, that they are outside the knowledge will of the subject, comparing them to the frog which has been decapitated & put into water which swims about till it meets some obstacle on which it mounts.

(2)

The lethargic state is produced (a) primarily by the friction of the gurne on an object held at a little distance. (b) secondarily by simple closing of the eyelids of a cataleptic person or by the subject passing into a dark room. Very often just as the patient is passing into this state a peculiar laryngeal sound is heard & at the same time a little froth is seen of the lips. Just previous to this the subject often takes some very deep breaths. Then the body falls into a state of complete resolution, as if in a deep sleep, so much so that this phase is often called the state of apparent death. They are incapable of moving their limbs or communicating with the external world, with complete analgesia of the skin & mucous membranes. though sometimes the organs of special sense present a certain degree of activity but in most cases it is quite impossible to influence the subject by suggestion. There is no change as regards the pulse & temperature. The eyes are closed & one can usually notice an almost incessant - trembling of the upper eyelids. If the eye be opened it will be noticed that the pupils are directed strongly upwards & inwards. Botley points out that these two phenomena are dependent

(1) Op cit vol II p. 124.

State of comanbulism.

on one another for if one turns up the eyes very strongly while he keeps the eyelids closed, he will notice quite a distinct trembling of the upper eyelid

However it is on the part of the muscular system that the most distinctive phenomena of this state exist. The limbs are soft flabby & hanging when raised, fall heavily as if lifeless. The muscles are completely relaxed, their tonus being wholly absent or nearly so but they are still excitable responding to electrical stimulation. The tendon reflexes are exaggerated, sometimes Westphal's paradoxical contraction may be elicited &c, if one flexes a limb suddenly it remains contracted in a state of flexion. There is a peculiar neuromuscular hyperexcitability to which we shall refer afterwards at greater length which Charcot & Richer¹¹ consider as a "reflex phenomenon dependent on a dynamical modification of the medullary centres & having for its centripetal & centrifugal ways the sensory & motor nervous apparatus of the muscles"

The spasm provoked by the excitation of the muscles or their nerves is very intense but is impossible to overcome it by force, relaxation is at once brought about however by gentle excitation of the antagonist muscles. We shall see later that the muscles of the face react differently from those of the trunk & limbs.

(3) State of somnambulism produced (a) primarily by continuous feeble sensory stimuli or the suggestion of sleep, (b) secondarily by gentle friction or simple pressure exercised upon the vertex of a person in either of the other two states.

This state is that generally known as the magnetic sleep & is characterised by an apparent torpor of the intellectual faculties while there is conservation of the muscular power so that

11) Archives de Neurologie 1881. t. II & III.

the person can move about like one in the normal state. However there is a certain heaviness of the limbs & co-ordination is a little impaired as may be noticed from the slow dragging gait. The state of the sensory organs is very much at the will of the experimenter. There is apparent insensibility yet the subjects can determine the shape of things by the touch alone, similarly they can easily recognise bodies by the taste & smell, yet they can be made to smell the strongest ammonia & drink nauseating mixtures without the slightest reaction. I myself have given to a ^{subject} patient both cod liver oil & strong infusion of quassia & after drinking them he smacked his lips under the impression that he had been taking whiskey. In regard to this last experiment I may mention that it was performed during a temperance lecture which the hypnotised person was giving to an imaginary audience she took care to explain to them that his throat was getting dry & sore with speaking & if they would excuse him for a minute he would drink a glass of water. Then turning to me, he remarked that they must never know it was whiskey he was drinking, then he swallowed the ~~worst~~ quassia with evident enjoyment. At another time he took cod liver oil telling them that it was guin & beer. This experiment does not at all support the theory which some authors advance viz that there is loss of consciousness & reasoning power.

Sometimes there is hyperacuity of the senses. Berger⁽¹¹⁾ relates a case where with Weber's aesthesiometer the point had to be separated 18 cms before double sensation resulted in the normal state, while when hypnotised, he felt double sensation at 3 cms. distance. Arzan⁽¹²⁾ mentions the case of a girl who when hypnotised suffered from noises & who could detect the ticking of a watch at the distance of 8-9 metres.

Another phenomenon is often present which too is

(11) Deutsche medizinische Wochenschrift- 1880.

(12) Hypnotisme. Paris 1884 p. 18.

often present in hysterical patients, & to which the name
 haptalgia is given. It is a form of dysaesthesia in which
 the contact of substances, some metals in particular, gives
 rise to a sensation of painful vibration or of burning. Gold
 silver, iron, copper lead & glass are the most active substances.

There is no neuro-muscular hyper-excitability
 such as in the lethargic stage. The tendon reflexes are
 normal & the electric excitability is absolutely the same as
 in the waking state. On the other hand it is very easy to
 cause the muscles to enter into a state of spasm by gentle
 stimulation of the overlying skin by such means as light-
 friction or blowing on it. Under the excitation, the subjacent
 muscles contract. Heidenhain made many experiments of this kind
 on his brother. If the excitation be stopped the spasm persists
 without spreading to the neighbouring muscles, if on the other
 hand it is continued, the contraction extends further & further
 & may extend to all the muscles of the body even including those
 of respiration though it is cruel & dangerous to carry the experi-
 ment so far. Charcot points out that this spasm is different
 from that obtained in lethargy in that it does not yield to
 stimulation of the antagonistic muscles, & from the immobility
 of the cataleptic state by the degree of resistance that is
 felt at the joints when one tries to change the position
 of the limb (*flexibilitas cerea*) & to distinguish them he
 proposes to call the state cataleptoid or pseudo-cataleptic
 rigidity.

It is a remarkable fact that only
 gentle stimulation will produce the spasm, stronger excitation
 has no effect so that one can pinch the skin without
 determining any muscular reaction.

To put an end to the spasm it is sufficient to blow
 strongly on the skin over the contracted muscle. Unless
 this precaution were taken, the spasm would last
 indefinitely even after the subject returned to the waking
 state. Charcot took advantage of these artificially
 induced spasmodic contractions to study their characters.

found that they were exactly similar to those so often found in hysteria. To relieve them it is enough to again place the patient in somnambulism & blow upon the skin.

The psychical symptoms are much more complex in this state than in the other two. This is the stage of suggestibility & credibility. The subject is capable of psychical activity but his free will is gone. He obeys all orders however odd & accepts all suggestions made to him hence he is entirely at the will of the experimenter. He has no ideas of his own & left to himself never remains quite still. If an idea be given to him he follows this out & develops it often with a certain degree of cleverness. Thus one of the subjects that I experimented on, was told that he was an excellent singer & asked to sing a song, he was troubled all through it by an imaginary accompanist who evidently was not thoroughly up to his work, for the subject would stop his song every now & then & walk over to where he ^(i.e. the accompanist) was supposed to be sitting & give him instructions as to what passages should be played soft & what, loud.

The subject can be made to pass with surprising rapidity from one state of mind to another. The very completeness & rapidity of the change is (contrary to what some think) an evidence against simulation for it would be impossible for anyone to pass so thoroughly & so quickly through so many different moods.

It is the somnambulistic state which is most useful for therapeutic suggestion though it would seem from many reported cases that for good results to follow the use of hypnosis it is not necessary that the patient should be very deeply under its influence.

It is possible for these different phenomena of the 3 states to be localised to one side of the body only, or to have two different states on the two sides.

Localisation to one side of the body.

· hemi-letargy hemi-cataplexy.

(1) Thus when a person is in a state of lethargy it is quite sufficient to open one eye to cause to disappear all trace of neuro-muscular hyperexcitability from that side, while there appear instead the phenomena of catalepsy, *i.e.*, retention of the body in any position in which it is placed, while the other side still retains all the character of the lethargic state. The converse also holds true one can produce hemi-lethargy in a cataleptic subject by closing one eye. Similarly the phenomena of muscular suggestion can be confined to one side.

In connection with this part we may mention an experiment first performed by Professor Lepine & often repeated at the Salpêtrière⁽²⁾ - If when a subject is cataleptic he is asked to count aloud he goes on until one shuts the right eye corresponding to the left hemisphere when the eye is again opened the subject immediately resumes his counting at the number at which he left off. When the experiment is made with the left eye no such result follows. A similar result is obtained when the subject is made to write instead of speak. This experiment is looked upon as an additional proof of the localisation of the centres of speech & writing in the left hemisphere (Broca's convolution).

I will now refer a little more in detail ^{to} some of the phenomena manifested in the muscular & nervous systems, taking that in catalepsy first. The condition of true catalepsy as we have seen is characterised by the limbs retaining any position in which they may have been placed & by the ease with which one can alter that position. There are other states which may very easily be confounded with this. Thus the state in which all the muscles of the

(1) Charcot t. IX p. 307.

(2) - - - 308.

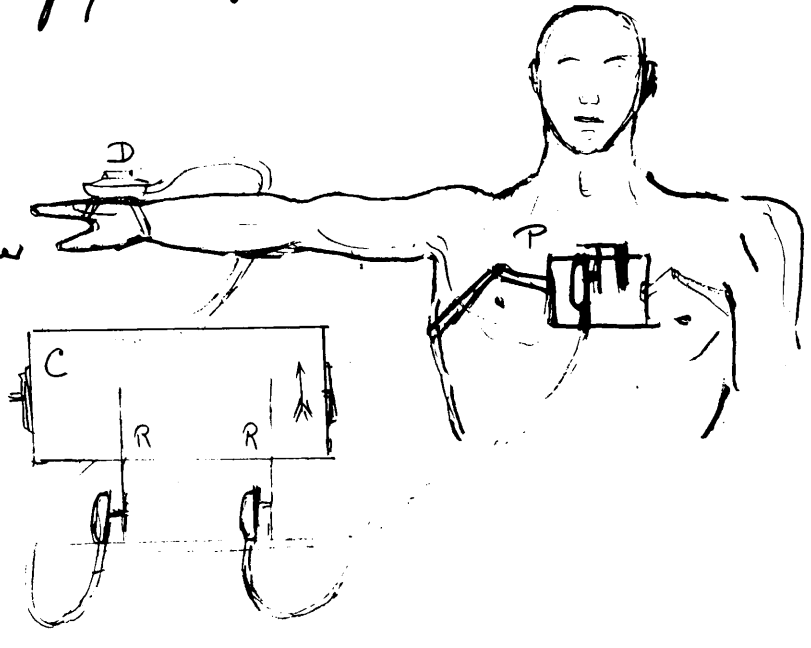
Detection of simulation

Trunk are made rigid to produce a condition of opisthotonus so that the person may be raised by the heels & the head is generally called catalepsy. The suggested catalepsy of Bernheim & others may in many cases be due to the spasm produced in the somnambulistic stage of right-figuring of the skin, which as we have seen previously, in that stage is in line with the spasm of the right-figuring.

This can be distinguished from true catalepsy by the following points:-(1) that if the limb be left to itself it soon falls of its own accord & (2) it is heavy to lift & there is a certain stiffness & the limb to when one endeavours to alter the position. Moreover the spasm yields to the friction & massage of the muscles, which is not the case in true catalepsy. The cataplexic limb in catalepsy the arm held out at right angles to the body could be maintained so, for at least 25 minutes. Now a very strong man might do this so to guard against simulation he devised an experiment which gives very striking results. In the simulator the cataleptic subject one of Marey's drums fixed at the end of the out-stretched limb serves to show the least oscillations when recorded on the cylinder, while at the same time a pneumograph on the chest records the respiratory curves.

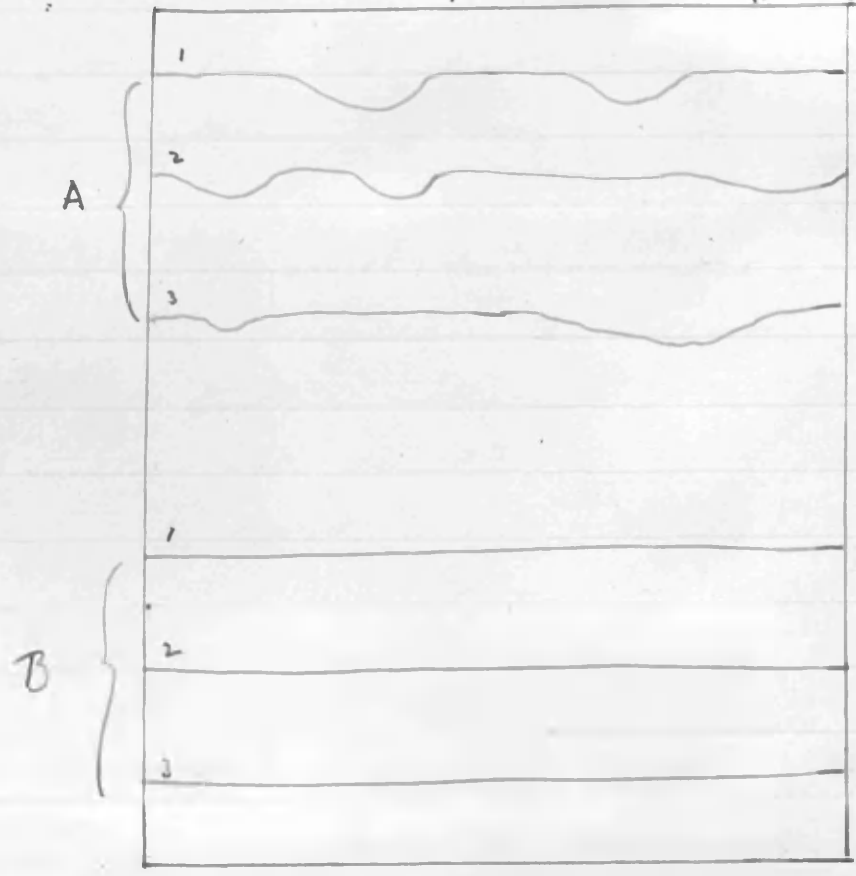
The accompanying figure shows the arrangement

- D is Marey drum
- P the pneumograph
- C the revolving cylinder
- R R the recording styllets



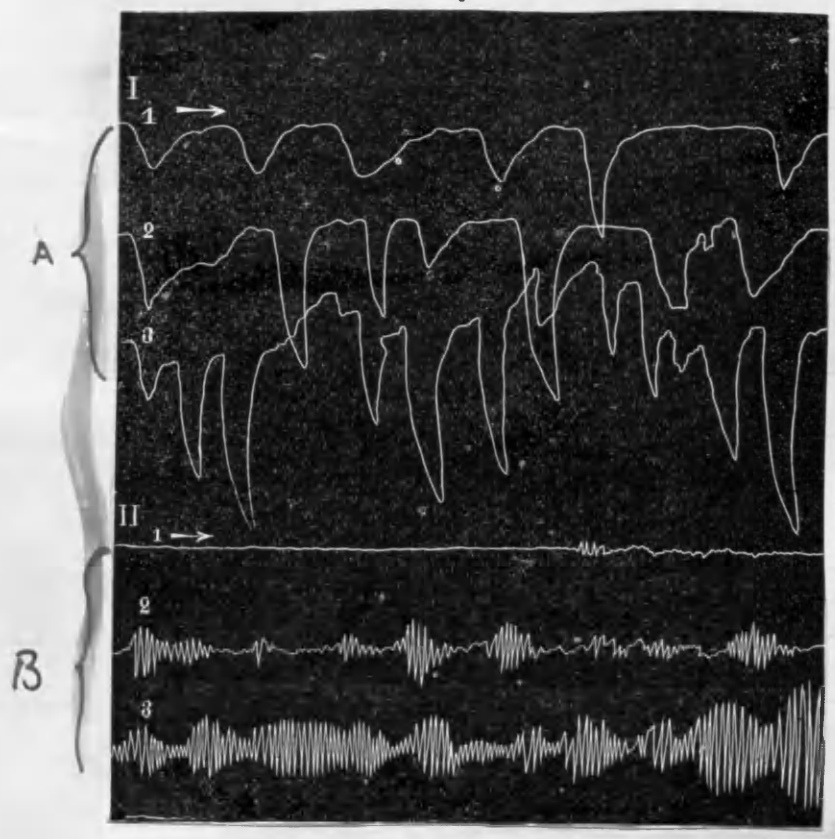
The tracings obtained in this channel are very striking & characteristic. Below the two tracings are given, first that from the cataleptic subject. Fig I

Fig (1)



A pneumographic tracing B tracing from Marey drum.

Fig II



Traces obtained from a subject trying to simulate the cataleptic attitude. A Pneumograph B, Marey drum.

lethargic neuro muscular hyperexcitability

Jordan reflexes.

The tolerance of tension to tracing is very great, in the cataleptic subject the arm continues quite immovable & the respirations continue shallow & regular, while in the simulator the arm is kept fairly steady for a little time but the line soon becomes vibratile showing the muscular fatigue while the respiratory curve soon betrays the efforts put forth to mask the muscular fatigue.

We come now to the phenomena of neuro-muscular hyperexcitability observed in the lethargic stage. The muscular contraction occurring in this state is not due to direct mechanical stimulation but is developed equally well, whether the stimulation be applied to the tendon, muscle or motor nerve. The excitation may vary, percussion, massage, friction or simple pressure all causing the spasm.

As has been seen before that there is exaggeration of the tendon reflexes, also due to the same cause & from numerous experimental tracings Charcot came to the following conclusions in regard to it.

- (1) The reflexes are exaggerated & spread to the other limbs or may become general.
- (2) The muscular contraction resulting, presents a marked tendency towards spasm.
- (3) The degree of exaggeration varies not only in different patients but is the same one from day to day.
- (4) The greater the tendency towards diffusion of the reflexes the less is the tendency towards spasm of the muscles.

The mechanical excitation of motor nerves also causes spasm of the muscles to which they are applied. In this experiment care must be taken that when the nerve is pressed we are not also pressing on muscles. One of the nerves

most suitable is the ulnar, in its groove at the lower end of the humerus. Pressure on the nerve here, causes contraction of all the muscles to which it is supplied producing the well known "griffe cubitale" or birds claw hand. The results are similar to those produced by faradisation of the nerve at the same place. This attitude is quite proof against the theory of simulation or unconscious suggestion for we can't believe that anyone ignorant of anatomy could have the faintest notion as to which muscles ought to contract. Indeed it is a position very difficult to imitate even by one well skilled in anatomy. Similarly characteristic attitudes are obtained on stimulation of the median & radial nerves. Slight variations may be explained by anomalous distributions of the nerves.

The spasm caused by stimulation of the muscular mass itself is also probably of reflex origin. This spasm is very easily demonstrated in superficial muscles such as the sternocleidomastoid. By this means I have not been able to repeat &



"Griffe cubitale"

confirm for the most part the long series of experiments of Duchenne of Boulogne on the actions of the muscles. The motor points of Duchenne are also the best for the application of pressure. The results of these two series of experiments are sometimes a little different, due as Charcot points out, to the following causes:— (1) Differences of the result obtained by the stimulation, a simple contraction with the electricity, spasm or lethargy. This only applies to the muscles of the trunk, those of the face never enter into a state of spasm.

(2) In the case of electricity it is possible to localise the contraction to special bundles of a composite muscle such as the deltoid or pectoralis major, while

in tetany if one part be stimulated, the spasm spreads to the whole of the muscle.

3. The spasm also in lethargy may spread to those muscles which usually act along with it (synergists) thus it spreads to the serratus magnus & trapezius in spasm of the deltoid. In the electric contraction this is not the case.

We have seen above that the muscles of the face react in a different manner from those of the trunk. They are equally susceptible to excitation which may be applied either to the muscles or their nerve branches but the contraction thus provoked never passes into the tetanic condition & though the exciting pressure may be kept up the contraction soon disappears. In consequence of the muscles being superficial & often disposed in a single layer it is very easy to cause them to contract. Thus the whole series of Duchenne's experiments upon the part the different facial muscles play in regard to expression may be easily repeated. We have seen that the contraction does not persist as spasm but Binet & Yeri¹¹¹ first used an ingenious plan to render the expression fixed. We have before seen that if the eyes of the idiotic subject be opened, the subject passes into the state of automatism where there is immobility of the features. Thus any given expression may be as it were preserved & photographs taken. It is only in comparatively few subjects that this neuromuscular hyper-excitability exists in the face to a high degree. Indeed it may be completely absent from the face while well-marked on the limbs. Charcot gives a large number of experiments show the various parts the different muscles play in physiognomy. The following photographs are taken from his work. The excitation is produced by the pressure of a glass rod.

111) *L'op Cit* p. 108.
Jon IX p 359-373.



Fig I



Fig II



Fig III



Fig. IV.



Fig V



Fig VI



Fig VII



Fig VIII



Fig IX



Fig X



Fig XI



Fig XII



Fig XIII



Fig XIV



Fig XV



Fig XVI



Fig XVII



Fig XVIII



Fig XIX



Fig XX

Explanation of the figures.

- figs 1. Excitation of left stern. mastoid.
- .. 2 .. of facial nerve, Simultaneous contraction of the muscles of the eye face mouth and nose.
- .. 3 .. Frontalis (bilateral)
- .. 4 .. Orbicularis palpebralis, super. bilateral
- 5 .. Orbicul. palpebralis superior with slight degree of contraction of the muscles of the opposite side

- Fig 6. Orbic. palpeb. superior with pyramidales nasi
- 7 Media excitation of two dilators of the nostrils
- 8 Transversalis nasi of left side
- 9 Zygomatic. major bilateral
- 10 " " unilateral
- 11 " " minor, with slight degree of levator alae nasi et labii superioris
- 12 Levator communis nasi et labii superioris (unilateral)
- 13 " " (bilateral)
- 14 Quadratus menti (bilateral)
- 15 Depressor anguli oris bilateral
- 16 Depressor labii superioris
- 17 Simultaneous contraction of frontalis & platysma myoides. "Muscles of fright" after Duchenne.
- 18 Same experiment but the eyes have been opened to complete the expression of terror. The patient is thus rendered cataleptic without the expression being modified.
- 19 Simultaneous stimulation of orbic. palpeb. superiores, front. & zygomatic. major. The patient is rendered cataleptic on the left side by the opening of the left eye. Bilateral excitation of the levator commun. labii super, et alae nasi. Only the muscle on the right side contracts, on the cataleptic left side, stimulation produces no effects.

Let us look now to some of the characters presented by the muscle in their state of spasm:-

- (a) The spasm is very powerful & resists great force used to overcome it. Still it yields very quickly & completely to the excitation of the antagonistic muscles.
- (b) The spasm persists after the subject returns to the normal state unless it has been previously removed. It is impossible to say how long this spasm might-

Are these phenomena due to suggestion?

persist, probably for a very long time but Charcot never carried the experiment beyond several hours as he feared that the spasm might become permanent. To cause it to disappear it is necessary to hypnotize the patient again & excite the antagonists, so this has no effect in the waking state. These spasms present the closest analogy to permanent hysterical spasm.

- (c). The spasm like hysterical contracture is capable of being transferred from one side to the other by application of a magnet.
- (d) By rendering a limb anaemic by Esmerich's bandage, one causes all to disappear all tendency of the muscle to become contracted. Still there exists what Richet calls latent spasm ("Contractura latente"), for if one takes off the band after stimulation, the muscle becomes spastic as the circulation is re-established without new excitation. This latent spasm may like the other be transferred by the application of the magnet, the spasm appearing quite distinctly in the corresponding muscles of the other side. Tamburini & Seppili have found that the neuromuscular hyper-excitability can be suppressed for the time being by the application of cold water ether or ice. Babinski mentions that in some of his cases where he provoked a flabby paralysis in a limb by means of suggestion, all these phenomena disappeared from the limb as long as the paralysis lasted, while they were well marked over the rest of the body.

There is no doubt that these phenomena become more intense & precise by repetition of the experiments. Relying on this fact Bernheim maintains that they are all due to suggestion. Charcot however points out that all phenomena of a reflex nature are developed & perfected by use. Besides many of the phenomena are manifested completely developed in the first experiments. We shall refer in more detail to the controversy later on.

Variations

Hypnotism characterized by the three states which I have just described is called by M. Chevreul "La grande hypnotisme". In his description he leaves to one side the forms which are mixed or imperfectly developed, confining himself to the regular types before studying the others & worse defined forms, laying special stress on the physical signs, the only safeguard against fraud. Surely it is of importance to study the highest & most complete forms with the three states well their distinctive characters quite well defined & separated, giving us the perfect type & permitting us more easily to analyse & recognise those forms which are mixed or imperfectly developed. ("formes fautes") In the same way the study of la grande hysteric, or hystero-epilepsy has thrown much light on the commoner form of ordinary manifestations of hysteria.

Let us hasten to add however that this perfect type is rather rare & as we have seen above many of the symptoms become more pronounced on repetition. Still some subjects present all the phenomena the first time they are hypnotized. In other cases the 3 typical forms are only seen after a number of trials & the incomplete forms may be suddenly transformed or may pass gradually into the typical forms.

Pitres ⁽¹¹⁾ describes, at length, a number of the variations from the typical form amongst them being a lethargoid state with the eyes open, a state of lucid lethargy in which the subject though incapable of communicating with the other world is nevertheless perfectly conscious of all that is taking place around & on the return to the normal condition remembers everything that has been done or said. He describes also a cataleptoid state with the eyes closed & as varieties of somnambulism the states of fascination & charm. This state of fascination was extremely well marked in some of the subjects on whom I experimented. It is produced by sudden fixation of the look. The fascinated subject-

(11) Op. Cit. t. II p. 131 et seq.

Bernheim's Classification

repeats automatically all the movements & expressions of the experimenter. The subject follows him wherever he goes, his sole aim apparently being not to lose sight of his eyes. Still he is conscious of what he is doing though he cannot resist it & remembers everything. This state as a rule is only met with in men & chiefly in those who have not been hypnotized frequently.

Besides these varieties there are others still more imperfect presenting only a few of the symptoms of hypnosis. Thus one may be capable of being put to sleep but may present no muscular phenomena & be quite insusceptible to suggestion so that hallucinations cannot be provoked, these slighter forms are generally met with in persons who at all events are not obviously hysterical. These imperfect-forms (le petit hypnotisme) are capable of being divided into two classes one in which the subject still presents some objective signs capable of being checked by scientific methods, the other class, in which the phenomena are purely psychical, though these phenomena, are sometimes as well developed as in those subjects presenting objective symptoms. This however is the exception for as a rule they are not nearly so well accentuated & sometimes it is difficult to decide whether the case is one of natural sleep, hypnotic sleep or even simulated sleep.

According to Bernheim others true lethargy & catalepsy are never seen except in hysterical patients. For the sake of comparison I give here Bernheim's "different degrees of hypnosis, remarking that somnambulism has a different meaning from that in which it has been used alone. With him it means that state of hypnosis in which there is complete loss of memory of events occurring during hypnosis when the patient is awakened. He divides it into 9 degrees as follows:—

Controversy between Paris & Nancy Schools.

A. Degrees one to six. After awaking, the patient remembers what has taken place.

B. Degrees seven to nine. Amnesia on awaking.

1st Degree. Brownness, Patient susceptible to certain ~~symptoms~~ suggestions e.g. sensation of warmth in various parts of the body or the abolition of pain. Patients asserts confidently he has not slept.

2nd Deg. The patients are unable to open their eyes otherwise negative symptoms.

3rd Deg. Suggestive catalepsy is present, the patient has however the power of consciously arresting the suggestions.

4th Deg. Suggestive catalepsy is present, the patient being unable to withstand suggestions unless neutralised by the operator. Automatic movements are usually obeyed.

5th Deg. Suggestive contractures may be induced

6th D. Automatic obedience, In this state patient can only walk with difficulty. It is still impossible to induce hallucinations or illusions.

7th Deg. All those symptoms of the former degrees are present but it is still impossible to induce hallucinations though there is amnesia on waking.

8th Deg. Hallucinations may be induced.

9th Deg. Patient subject now both to hallucinations & post-hypnotic phenomena.

Chapter VI

Subsequent reference may now be made to the latter controversy which has been going on for a long time between the two schools of Paris namely, the former represented by Charcot & his pupils, the latter by Beriberin & his pupils.

Charcot's doctrines according to a paper of his pupil which Babinski, which first appeared in the Archives de Neurologie No. 69-60, may be summarised as

There is a want of search about all of them

* What?
alone

* What is "this"?

② "Such cases" have not been adequately
described above.

∴

follows: -

- 1st The physical character observed in cataleptic ^{certain} subjects under hypnosis have a fundamental importance since they alone allow one legitimately to affirm the absence of simulation; besides they are of great importance in establishing scientifically the reality of the phenomena observed & thus help to convince sceptics.
- 2nd The hypnotic phenomena are capable of being grouped into 3 distinct states. This is the most perfect form of hypnosis, that which we ought to take for our type to which we may give the name of profound hypnosis (le grand hypnotisme).
- 3rd The physical characters of the above can be developed without the aid of suggestion.
- 4th In its most complete form hypnosis ought to be regarded as a pathological condition.

Mr. ~~Robert~~ ^{Robert} ~~Robertson~~ ^{Robertson} takes "le grand hypnotisme" as typical declaring that he has never seen such cases outside the Salpêtrière & that they are simply artificial creations due to unconscious suggestion & education. He attributes no importance to the physical signs & merely mentions the condition of opacum & cataleptic plasticity without indicating their precise characters, declaring that they also are due to suggestion. He considers hypnosis rather a physiological than a pathological condition. To quote from his work: - "It would not do to believe that the subjects affected are all neurotic, persons with feeble brains & no will of their own or else hysterical women, the most of my observations were made upon men, whom I have chosen on purpose to reply to this objection of hysteria."

"It will be a curious thing in the history of hypnosis, to see so many distinguished minds, put on the wrong track by a first erroneous conception, led into a series of singular errors which no longer allow them to see the truth. These mistakes are to be regretted for they prevent progress & obscure a question so simple

X It is a pity that all this is expressed so much in general terms & that no attempt is made to deal with it in detail, as it is precisely one of the controversial questions where personal observations & opinions founded on these, are only valid when carefully and exactly recorded. WV

in itself, where everything is perfectly clear when one knows that suggestion is the key to the explanation of hypnotic phenomena."

After following Charcot's clinique for nearly 6 months & having seen many experiments performed in that time on this subject I must say I have not been able at all to endorse Bernheim's opinion. It seemed to me that they were also cognisant of the power of suggestion & took every means to guard against its occurrence either consciously or unconsciously. Anyone after reading Binet & Mèri's book noticing how carefully they recognise the errors to which suggestion may give rise & also what precautions they took to guard against it & yet notwithstanding all, they obtained results similar to those of Charcot, must surely be forced to admit that there is some^{thing} more than phenomena due to suggestion.

In discussing this question further I will mainly give a resume of Babinski's paper above mentioned.

There is no doubt that the two chief things which vitiate experiments are 1st the memory of occurrences during previous sittings & 2nd suggestion. Both of these must be rigorously guarded against & as an example of how errors may arise Mall mentions an instructive case that occurred to him. On one occasion he told a hypnotised person to raise the right leg & as he said this he accidentally took hold of the patient's left hand. On a subsequent occasion when the patient was hypnotised, he took hold of this hand & immediately the right leg was raised. The oftener a person has been hypnotised the more does this element of memory enter into the case after the subject with remarkable acuity guesses the intentions of the operator. In these cases it is impossible to say how much of the result may be due to suggestion & how much to the stimulation; there is no doubt of the power of suggestion sometimes by its means spasms may be produced while peripheral stimulation has no effect.

(1) Well: - Op. cit.

To repetition suggestion conscious or unconscious, is to be attributed in great measure the fact that often all the subjects presented by one experimenter resemble each other, modelled as it were on the same type & may present symptoms different from those of another observed. A subject may, by hypnotic education & suggestion be taught nearly anything no doubt the identity of the symptoms of the subjects may be partly due to the fact that they were in similar states & subjected to exactly the same methods of experiment but it must be due to a great extent to the unconscious suggestion of the operator or even to the suggestion produced on one patient by another from simulation. Hence the value of first experiments made on virgin soil will be apparent.

These facts show the power of suggestion but they don't prove as the Nancy school hold, that suggestion is the sole influence that can act in hypnosis. To admit this to would be to assert that psychological causes alone could modify the nervous system; but in physiology we have a large number of functions roused into activity by either physical or psychical stimulation e.g. tears, secretion of saliva &c. Balinski aptly asks, "Because we can appease hunger by suggestion does it follow that food has no efficacy?"

Thus the Paris school while recognising the potency of suggestion, hold that it is not the unique source of the phenomena observed.

The only argument advanced by Bernheim against the tenets of the Charcot school is that in his subjects he has never been able to produce, without suggestion, the phenomena of contracture, catalepsy &c. But he must remember that the subjects were different as were also the methods. Those of the Salpêtrière were hysterical & the hystero-epileptics.

Let us look to the proofs that the Charcot school advances in support of their doctrines.

In the first place Bernheim ought to show that suggestion is capable of producing all the phenomena above described.

If suggestion be all powerful why were these experiments not successful. Even for a moment granting that the results were due to suggestion, the details formerly given show the importance of studying their precise character, to detect simulation & establish the reality of hypnosis.

Besides it is not alone at the Salpêtrière that these cases are seen. The same states have been described in Italy Switzerland Germany & Chili. Have all these investigators wanted pathological states? all knew its power & took special precautions to guard against it. Thus we find that one of them used an electro-magnet to guard against simulation & suggestion the phenomena of transfer only took place when the current was passing.

How can the compression of a limb by an elastic band or the pressure on a nerve give rise by suggestion to the idea of spasm? Even granting that the patient knew that muscular contraction was expected to follow, how could he know to what muscles the nerve is distributed or reproduce so faithfully the given results of the contraction of groups.

We have before spoken of the values of experiments on virgin soil. In some patients the first time they were hypnotized the three states have been found to exist with all the particulars which characterize them though of course not so well marked as after repeated experiments. Still they were

(11) *op. cit.* p. 100.

(12) *op. cit.* p. 100. *de l'hypnotisme* 1859.

Memory in the hypodermic state.

present for the first - at a time when the psychical element was less fully developed - consequently suggestion less potent - for it was impossible to produce hallucinations.

Catalepsy, lethargy & somnambulism are sometimes seen in consequence of spontaneous hypnosis, in persons who have never been subjected to any experiments. *Vizioli*⁽¹⁾ even relates a case in which the patient passed spontaneously through each of the three typical states.

No more does suggestion explain those cases where one or other of the states are developed suddenly without the knowledge of the experimenter & in consequence of some unexpected incident. *Charcot* had a case in which a patient for 18 months only manifested the states of somnambulism & lethargy although surrounded by typical cases & in which they had often endeavoured by various means to induce the cataleptic state but without success. One day while working in her normal state the sound of a gong in an adjoining room threw her into catalepsy. Here a sensory stimulus produced what even suggestion was incapable of doing.

————— || —————

Chapter VII

Let us turn now from these controversial matters & consider some manifestations chiefly on the psychical side & on which all are agreed. In these psychical phenomena there is no doubt that the role of suggestion is very great, in fact many of the appearances are entirely due to it & may be made to come & go at the will of the operator. We will first consider the question of memory in the hypnotic state.

After the lighter degrees of hypnosis, there is complete recollection of everything that has taken place, *Bernheim* first 6 degrees have memory of awaking. But in the

(1) *Vizioli* in a paper of *Rivista Riforma Medica* 1888 n° 3 p. 16. translated by *Belinzani*.

deeper forms there is profound disturbance of the memory.

Just as a person is passing into hypnosis there is an interruption in its continuity, thus if a person be made to promise to count from one to twenty and to stop on any pretext & if while doing so he be hypnotised say when he is at ten, he stops counting. If he be asked why he has stopped before fulfilling his promise, he seems to reflect for a little then begins to count again starting at one as if he had forgotten that he had already counted to ten. With others the memory is quite gone. If they are asked why they have stopped, they don't understand the question, they have forgotten all about their promise.

In certain cases this loss of memory extends to events which have taken place in the waking state.

Pitres sums up the facts relating to memory in the following 3 statements :-

- 1st Hypnotised persons remember during the sleep all they have learned when in their normal waking state.
- 2nd When awakened they have no recollection of what has been said or done when they were hypnotised.
- 3rd When again hypnotised they recollect equally well what they have learned either in their normal state or in previous hypnotisations.

According to some authors the memory in hypnosis seems to be increased. Thus "Feltkin" relates a case where a lady on being hypnotised commenced to speak English though no one knew that she could understand a word of that language. During her waking state she could not speak it & for the last 25 years it could be proved she had never spoken it though she had learned it while young. Other observers relate similar cases. As the result of direct experiment on this subject Pitres has come to the conclusion that by hypnosis alone there is no marked difference, but that it can be increased by suggestion.

The loss of memory on waking was known to Arriald & even before his time to Husson in France. This rule however is not absolute; in certain cases of leading questions it is possible to recall events, just as one sometimes recalls a forgotten dream in consequence of association of ideas. Thus Heidenhain repeated to his brother a line of Homer, & although at first he had no recollection of it still on the mention of Homers name he repeated the line. He made similar experiments with sentences & found that to recall the whole sentence it was sufficient oft to mention only one word. I have tried to repeat these experiments on several subjects but without success.

There ^{is} another class of cases in which there may be memory on waking. Riche first described the fact that if one creates a sensory hallucination in a subject & awakens him while he is still under the influence of the hallucination, the memory of the image still persists on waking so that at least for a short time after returning to the normal state, the subject still believes in the reality of the hallucination. Similarly Janet⁽²⁾ mentions that if a subject be awakened in the midst of some suggested act or movement he remembers it hardly as after a dream. Pitres relates several interesting cases in which accidents happened to hypnotised persons who in their normal states remembered nothing about it & yet could relate all the details when again hypnotised. Let me quote one case: - One of his patients being unconsciously hypnotised by the reflection of the sun from the water of a fountain, fell from a balcony & broke her leg. When picked up she was found still to be hypnotised & after the fracture had been put up she was awakened. She had no recollection of the accident & complained that she was in bed, kept in an immovable apparatus for no apparent cause. When again hypnotised she could give minute details of the accident.

(1) Pitres: - Vol. II p. 200.

(2) Janet, *Revue Philosophique* 1886. XXII p. 577.

There is no doubt however that the memory is capable of great modification by means of suggestion, by it all the statements above given can be falsified. Affirm to a person in a hypnotic sleep that on waking he will remember everything he will do so; on the other hand suggest to him that he can never recall an event happening during his sleep & even although he be again hypnotized & persistently questioned about that event he will never question it. This opens up a large field for medico legal inquiry but one which we do not propose to take up in detail; Thus a person who may by suggestion force another to commit a crime may shelter himself from further discovery & punishment by commanding that person to forget for ever the name & address of the one who made the suggestion. Still the subject might be able to give such a description of him as might lead to his identification.

All the known forms of loss of memory may be produced by suggestion, agraphia aphasia, word deafness or blindness, loss of certain letters or numbers &c.

It is likewise possible thus to make a person forget a period of his life more or less prolonged & even in this way to modify the notion of his personality. Indeed Richet says it is possible to produce total loss of memory but this is a dangerous & cruel experiment.

Then it is easy to produce what Bernheim calls retro-active hallucinations i.e., a person is made to believe that he remembers being present at some imaginary events & by this means subjects could be brought to accuse innocent persons even themselves.

By suggestion it is also possible to produce a notable exaggeration of the activity of the memory. Binet & Féré have made a number of researches on this point basing them on the following experiment which seemed to me very wonderful the first time I saw it performed by Charcot at the Salpêtrière. This is an

• Experiment with blank cards.

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follows - One out of a number of similar blank white cards is chosen by suggestion the subject is made to believe that on it there is a photograph. The cards are so much alike that it is quite impossible to tell it from any of the others so for purposes of identification that card is marked on the back. The card is now placed among the others, & the subject awakened & told to look over the cards, of course the distinguishing mark is placed on the side away from the subject. He notices nothing on the other cards, but as soon as he comes to the particular one he stops & admires it & on being questioned declares he sees a portrait & describes it exactly as had been suggested to him. If the card be put in up side down he immediately rights it on coming to the card. On reading this it looks dreadfully like some conjuring trick but I have seen it often performed by Charcot on several subjects. How can the subject recognize that card as being the one? It is probable that the suggested image is associated in the subject's mind with some small details on the card which serve as "points de repere" such as spots or blemishes on the card which ordinarily would be unnoticed & the sight of these at once recalls the memory of the imaginary portrait. Thus the experiment succeeds best with unglazed cards, while optical conditions modify the image just as if it were real; the lens magnifies & the prism doubles it. Still to produce this instant recognition the memory of these "points de repere" must be very deeply graven in the mind unconscious. The subject does not know why he recognizes the card, he simply sees the photo, the calling up of the illusion & the simple recognition of the signs taking place automatically without the will intervening & without the subject having any idea of the mechanism which presides over the intricate association of the two images.

Suggestion

This role of unconscious memory is also important in post-hypnotic suggestions "suggestions à échéances". Thus a hypnotized person is told that after such a time he will do a given thing. When awakened he has no recollection of the order given yet without-knowing why, at the stated time he executes the suggested act. Paul Janet holds that the subject possesses some mysterious faculty by means of which he can unconsciously measure time. Is it not more probable as Binet & Jéze hold that at the moment when the subject receives his command he fixes on some real "point de repère" some comparative mark which becomes fixed in the unconscious memory & that the carrying out of the act suggested is due to the association of ideas between this act & these "points de repère" so that on the recognition of these marks the suggested idea is revived & the act performed. We shall refer later on to these post-hypnotic suggestions.

Chap. VIII.

We come now to study more carefully the results of suggestion. Janet⁽¹⁾ defines suggestion as "the operation by which in a subject in a state of hypnosis & perhaps also in certain states of waking, by the aid of certain methods & especially the aid of speech, one can call forth a series of phenomena more or less automatic & make him speak, act, think, feel as one wishes, in a word change him into a machine."

The subject becomes a sort of automaton accepting every idea given to him no matter how ridiculous. The experimenter exercises complete control over all his thoughts & functions. At will he can be made

(1) Janet. Revue politique et littéraire.

July 26th 1884.

to see visions, hear voices carry out acts &c. With a good subject the number of experiments is only limited by the ingenuity of the experimenter. The greater part of the exhibitions of public entertainers turn on these suggestions.

Let us now consider in detail several of the forms of suggestion beginning with those of sight. Under this are included the movement of imitation in which the subject exactly reproduces all movements performed before them, & also those cases which as so much made of by public performers & described by them as examples of magnetic transmission of thought & will. By means of this supposed transference the subject carries out the idea of the experimenter with the command being spoken. But by means of slight movements of the fingers lips & eyes, the subject gets an idea as to what is required of him, some of them perceiving the significance with wonderful clearness & acuteness.

Another form of suggestion of sight is that erroneously called magnetic attraction in which the subject's eyes become riveted on an object which he follows with great earnestness wherever it may be moved, throwing aside anything which may intervene in his anxiety not to lose sight of it.

This phenomenon was very well marked in a subject whom I experimented on using the silver head of a stick as object. Another form which I can find described by any author I have seen Charcot demonstrate. It was done by making the subject look through various coloured glasses. When made to look through a red glass, the hallucination of a house on fire was produced & she described the whole progress of it in as great detail as if she had been present at a real fire. With a blue glass, the idea of being in a church was evoked, the patient describing the music &c, crossing herself & saying her prayers to the Holy Virgin.

We pass next to auditive suggestion. Many subjects exhibit a kind of musical ecstasy, the showing emotions

Sensory Hallucinations

in touch with the music which may be played before the
The usual auditory suggestions are those given by speech.
They are very numerous but may be divided into three groups
sensory, motor & psychical.

The sensory group consists chiefly of hallucinations & troubles
of the senses either special or general. The hallucinations
are easy to invoke. It is sufficient to say: "There is a cat
before you" & immediately the subject sees one. It appears
quite real & he will at once describe what it is like
& make stroke it or appear to take it on his knee or kick
it away according to his customary treatment of cats. It is
quite so easy to make it disappear & substitute another
hallucination in its place, "No it's not a cat it's a
dog." & the dog is seen. Binet & Yeri state that these
visions are subject to ordinary optical laws, & also the
laws of complementary colours, though Bernheim has not
been able to verify these experiments in all cases.

In like manner hallucinations of hearing, taste &c may
be produced. The subject may be made to hear music, smell
strong odours without reaction & apparently enjoy a nauseating
draught under the impression that it's his favourite beverage.
Bernheim describes "negative hallucinations" i.e., real
impressions may be negatived. Thus a person may be made
invisible by suggestion & the subject no longer replies to
questions asked by the invisible person.

So also the general sensibility can be altered by suggestion.
The subject may be made hot, cold, itchy or insensitive
at will. Internal sensations can also be controlled
so that it is possible to produce or allay hunger, thirst,
nausea, tickling in the throat or nose with coughing or
sneezing as a consequence &c &c.

Pitres shows that on analysing all these phenomena
the essentials are the same in all cases & always
succeed each other in the following definite order:—
1st The initial affirmation on which the suggestion depends

Motor effects.

Psychical effects.

- 2nd The sensorial impression provoked by the affirmation
- 3rd The acts which logically & physiologically succeed this sensorial impression. The wonderful part about it is that the simple affirmation should produce in a hypnotized person a sensorial impression so clearly perceived & defined.

The motor phenomena are not so numerous. By suggestion a limb may be rendered rigid & immovable in a spastic state or on the contrary a paralysis with flaccid muscles may be produced & as easily cured again by mere affirmation but the patient may be rendered unable to stop any action which has been started until leave is given her.

As regards the psychical phenomena, we have already studied some of them in dealing with the question of memory. By suggestion the personality of a subject may be changed & he then speaks & acts exactly as if the change had taken place. The subject can be made to believe he is some other person or himself at another period of his life, being made old or young & acting as if he was really at that age. Thus in the case of one of my subjects who was made to believe that he was a schoolboy, he had a quarrel with an imaginary playmate over some marbles. All the acts are in conformity with those which do occur at that age. Thus I give his writing while supposed to be in school & also that of his normal state which was taken immediately after he was awakened. To guard against deceit I may say that while he was writing I suddenly stuck a needle deep into various parts of his body without the least reaction or interference with his writing. To be doubly sure I took care to test the sensibility when he returned to his natural state & found it to be quite normal. He easily felt the slightest prick of the needle.

I give on the next page the actual writing & signing which were taken in London on Nov 3rd 1891.

a b c d e f g
h i j

J. Leek

3. Southgate Villas
S. Tottenham.
London. S.

3/11/91

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

3/11/91

J. Leek

3. Southgate Villas
Milton Road
S. Tottenham.

3/11/91

A. b. c. d. e. f. g.
h. i.

3/11/91

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

Alterations of vital processes.

Vesication.

Post hypnotic suggestions

is important to know that of means of suggestion one can act to a greater or less extent on some of the more intricate physiological processes. This no doubt is very surprising, but so many researches on this subject have been made by eminent scientists that it is impossible to mention them all. In fact, suggestion can produce a secretion, a contraction, a relaxation, a change in the rate of the pulse or respiration may be slowed or quickened, increased temperatures in localised areas sometimes as much as 3 degrees F. produced, purgation obtained as also the production of localised oedemas, redness, even sanguineous exudations. Beaunis⁽¹⁾ also by the application of a postage stamp was able to produce vesication having given the suggestion that a blister had been applied. Pitres⁽²⁾ gives a long list with references in full to records of cases. Here are 15 quoted among the authors' names are found those of Charcot, Bernheim, Liébeault & Voisin.

Certain subjects are quite unsusceptible to suggestions. It is impossible to call forth hallucinations or other disturbances of the senses. This would seem to prove that susceptibility to suggestion is not of necessity one of the symptoms of hypnotism though it is present in a large proportion of cases. Some subjects only accept suggestions in certain phases of the hypnotic sleep and in others.

Chap IX

We shall now consider what are generally known as post-hypnotic suggestions, though the name is not particularly apt. These may be divided into two classes: -
 1st. Suggestions produced in hypnosis but continuing after it.

(1) Beaunis Le somnambulisme provoqué p. 73

(2) Pitres Op. cit. Vol II p. 179.

2nd Suggestions given during hypnosis, but not realized in the waking state afterwards at a longer or shorter interval. These appear strange when we remember that usually the subject has no recollection of what has taken place during hypnosis, & although they don't remember any orders which may have been given them, still they execute them & reason of some unconscious impulse which they passively obey without knowing why. If questioned about these acts however they generally make some sort of excuse.

All the effects of suggestion which we have already studied can be made to persist for some time after awaking. The subject may continue to see imaginary persons who'd communicate with them. Likewise the motor & sensory troubles may be made to persist, as contractions paralysis anaesthesia &c. similar in every respect to those occurring in hysteria. It is difficult to say how long these effects might last; perhaps they might become permanent. To make them disappear all that is necessary is to hypnotize the patient again & make counter suggestions.

These suggestions which are given during hypnosis but which only take effect post-hypnotically are very curious & interesting (suggestions & echinances). A patient may be told that at such & such a time after his awaking he will perform a certain act. The occurrence of dreams can also be suggested.

With one of my subjects I made the following experiment while he was hypnotized I told him that just as he was going home I would clap my hands & he would immediately take off his jacket. After the other experiments were finished, I awakened him & talked some time with him on general subjects & just as he was departing I clapped my hands. He immediately stopped & took off his jacket. I questioned him about this showing him the absurdity of it & after a little pressing, he said it had not been put on right & was hurting him at the armpits.

Length of interval

It is this post-hypnotic action that is of use therapeutically we shall come to this in detail later on.

We can also by this means guard against the risk of the subject being hypnotised by anyone, by simply affirming to him while hypnotised, that it will be impossible for anyone else to hypnotise him.

The question may be asked, "what interval may elapse between the suggestion & its performance?" This is very variable. As a rule if no time be specified, the act is performed soon after awaking, or the hallucination only persists for a little time. On the other hand by fixing a given hour or day the period may be made much longer.

Bernheim⁽¹⁾ reports a case in which the interval was 63 days while Liégeois⁽²⁾ relates one in which a year elapsed between the suggestion & its performance.

Moll⁽³⁾ has studied these post-hypnotic states & finds that the patient's condition is variable & summarises these states as follows:—

- (1) There is a condition in which during the fulfilment of a suggestion received during sleep, the person falls into a temporary hypnotic condition followed by forgetfulness of the act performed. In this case, other suggestions may be given & are carried out by the patient.
- (2) A condition in which there is not the least sign of hypnosis, the person is perfectly awake.
- (3) A condition in which the stated act was carried out & followed by complete forgetfulness, but without new suggestibility.
- (4) A condition in which the patient is still open to other suggestions but remembers all about the acts performed.

(1) Bernheim *Op. cit.* p. 53

(2) Liégeois quoted by Pittes *Op. cit.* Vol II p. 180.

(3) Moll. *Op. cit.*

The most common psychical condition is that in which there is during the execution of post-hypnotic suggestions no susceptibility to new suggestions in which there is also loss of memory of the act performed. Pitres" proposes to call this the paraphrasic state, & is distinguished from the normal state by the sudden & involuntary concentration of the mind on an idea which all at once presents itself without any apparent association to account for its origin & also by the loss of memory in regard to the acts accomplished or the hallucinations produced. On the other hand it is distinguished from the ordinary forms of hypnosis by the complete absence of the physical objective signs & by the loss of susceptibility to suggestion so that it is impossible either to efface the initial suggestion or to give rise to new ones. The desire to accomplish the suggestion given becomes so important & imperative expressing that this state becomes as Pitres says a veritable monomania, an artificially produced monideal delirium persisting till the suggested act has been carried out when everything returns to order. This paraphrasic state can easily be produced experimentally in certain subjects by fixing their attention on a given idea at the time they are being hypnotized. In one of his experiments Pitres pressed on one of the hypnogenetic zones while talking to her of the devil. Immediately she was hypnotized & saw the glutton appear & this hallucination persisted in spite of all suggestions to the contrary. To destroy it, it was necessary either to wake the patient or plunge her deeper into hypnosis. Thus an artificial delirium can be produced by the fixing of the attention on the given subject at the moment of hypnotization. The explanation may be somewhat as follows. When an idea is firmly grasped on the mind of a subject submitted to gradual hypnosis it is projected objectively as a hallucination before all the symptoms of sleep develop themselves &

Resistance to suggestion

it persists with all its power as long as the subject is not completely hypnotized. Under this state it will be as well to refer to the subject of "Rappot". It often happens that the subjects are only in touch ("en rapport") with the hypnotizer. They neither see hear nor answer anybody but him & enable another person to communicate with the subject it is necessary that that person be pointed out or even touched by the experimenter. These facts have long been known & used to be cited as one of the best examples of transfer of magnetic influence. Liebeault gives them as characteristic symptoms of one of his divisions of the stages of hypnosis. Feltin thinks it is simply an exaggeration of a normal condition for even in ordinary life we may be attracted to & influenced by one person, much more readily than by another. This "rapport" is due as above explained to the fact that at the moment of hypnotization the subject has his whole attention fixed on the hypnotizer. In like manner by making the subject at the moment of hypnotization, think on some other person, it will be found that he is in touch only with that person.

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It is probable that there is not total loss of consciousness & will power during hypnosis, though there is no doubt that there is great weakening. Suggestions are not blindly followed out in all cases, some subjects manifesting a certain resistance to them, more especially if the suggestions are out of harmony with the character of the subject; thus it may be impossible to make a given patient do something which he considers to be wrong. In regard to the carrying out of post-hypnotic suggestions, many feel the impulse but can successfully resist it. This resistance to suggestion may take various forms. Brill describes a case where the patient demanded to be awakened when disagreeable suggestions were made to them. Beaunis has seen hysterical convulsions of a complete

lethargy supreme under like circumstances. Pitres relates an interesting case of a girl who had several times suffered from hysterical aphonia, to whom he suggested that she would not be able to speak after he had awakened her & who refused to awake until he had withdrawn his suggestion.

Chap. II

Many papers & books have been published on the Continent on hypnosis from a medico-legal aspect. Giles de la Lonselle deals very fully with it in his volume: "L'hypnotisme et les états analogues au point de vue médico-legal." Paris 1857. Yelki in his volume refers to it at considerable length. I do not propose to go into this part in great detail.

In courts of law several kinds of cases may arise.

- 1st Crimes committed on a person while he or she is under the influence of hypnosis. Several instances of rape so committed are on record.
- 2nd Several cases have occurred on the Continent in which false charges have been made against doctors practising hypnosis for purposes of levying blackmail.
- 3rd An accused person may plead that when he committed a crime he was under the influence of hypnotic suggestion. The notorious Bonfand trial which caused such a sensation in Paris last year is an example of the case in point.
- 4th A person may cause another to commit a crime while under hypnosis, at the same time forbidding him ever to reveal the name or describe the person who gave the suggestion.
- 5th Cases have occurred in which men who have committed a crime have hypnotised a person & compelled him to confess to a crime he had never committed.

Some jurists have proposed to examine the accused under hypnosis, but it must be remembered that even when hypnotised a person may refuse to answer questions.

Ideometric Lines.

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Zone idéogène

certain areas to which he gives the name of zones by ideographs the excitation of which immediately causes to arise in the mind of certain hysterical subjects hypnotized or awakened, a thought which imposes itself imperatively on the attention of the subject & which cannot be chased away as long as the excitation lasts.

He does not here include those experiments of Charcot & Richer where by stimulation of the muscles of expression, states of consciousness in accordance with these expressions were in relation to them were produced. Thus on one of his patients he got the following results:

Friction of the lateral surfaces of the nose provoked profound sadness, of the temporal region great laughter, of the occipital protuberance a threatening expression etc.

These areas are not confined to the head but are found on the trunk & limbs as well. Friction is the best mode of excitation. When two of these areas whose effects are not contradictory are stimulated, the effects of both are combined, but if the effects cannot logically co-exist, the result is a convulsive attack. The action of these zones cannot be prevented by verbal suggestion. When they are unilateral, they can be transferred by the magnet from one side to the other.

Some of these zones in certain subjects are active in the waking state as well. There is no constant relation between the situation of these zones & the nature of the ideas or sentiments called forth by their excitation, thus they falsify the phrenologists. While in one subject the excitation of a certain region gives rise to a particular result, in another the excitation of that same region may give rise to something quite different - or to nothing at all, though in the same subject it always gives a uniform result.

At first Pitres thought these phenomena were due to simulation on the part of patients who wanted to be interesting or who wanted to make a fool of him but by a long series of experiments he convinced himself of their truth.

Transfer of Phenomena

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In one patient who presented a large number of these areas, exact notes of their situation, number & the result of their stimulation were taken & the experiments were repeated after the lapse of six months with exactly similar results. It would be very extraordinary if the patient could have remembered everything so exactly.

What explanation is to be given of these facts, we cannot suppose that the stimulation applied to a certain part of the body goes straight to a certain part of the brain & awakens it up into activity giving rise to such & such a state of mind. The probable cause is that formerly there has been formed in one way or another an association of ideas whereby when the stimulation is perceived it at once calls forth the idea of this association. This may have been produced in one of two ways, 1st By suggestion, conscious or unconscious on the part of the experimenter, 2nd By some occurrence in the former life of the subject so that its repetition may be regarded as a kind of auto-suggestion.

Since the researches of Charcot some years ago, it has been admitted that the phenomena of the transfer of hysterical anaesthesia can be produced by different esthesiogenetic agents, such as the application of a magnet, faradic current, certain metals &c. It is curious to note that this phenomenon also takes place in hypnosis. We have seen previously that by certain manoeuvres it is possible to cause a unilateral hypnosis, this may be transferred from one side to the other by these esthesiogenetic agents of which perhaps the most potent is the magnet. So in like manner, hemi-anaesthesia, unilateral spasm or paralysis, spasms genitales, hypnogenetic & ideogenetic zones may be transferred.

When several of these states co-exist the transfer of them all does not take place with equal rapidity.

the first to change being the sensibility & last of all the hypno-genetic areas. As long as half an hour may be required before the transfer is complete. Bernheim did not succeed in producing this transfer without the aid of suggestion but it seems to me on reading an account of them that he expected the transfer to occur at once so that perhaps he gave not wait long enough for the phenomena to develop. If an electro-magnet be used to guard against suggestion, still the transfer takes place but only when the current is passing.

Binet & Yvi first showed that unilateral movements could also be transferred, I will quote their experiment: "We suggest to W, the idea of writing figures with her right hand, but a magnet is hidden in close proximity to her left hand, when she has numbered up to twelve she begins to hesitate, then changes her pen to the left hand & begins to write. The characters traced, appeared at first to us without meaning but on looking more closely we noticed that they were figures reversed, which in the mirror were nearly as good as those done with the right hand.

0 8 9 4 6 7 8

i. e. she has executed with her left hand movements absolutely symmetrical to those with the right hand.

These same observers have also described somewhat similar psychological phenomena, called by them polarisation. Some observers have confirmed their experiments others have not been able to reproduce them. They have noticed that a magnet can produce an inversion of the cerebral function & knows so that the subject passes from sadness to joy. It is difficult to believe that this is due to anything else than unconscious suggestion.

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M. Luys last year described some experiments in which the phenomena are stranger still :- of the transfer at a distance of the help of a crown of magnetised iron, of neuropathic states from one person in a waking condition to another in a hypnotic state." Société de Biologie Nov 8 1890. However all these experiments are confirmed by a very rigorous series of experiments specially designed to exclude all possibility of suggestion or simulation, they must be left an open question.

Dr Kingsbury describes these experiments, which he witnessed while in Paris, in his book on "The Practice of Hypnotic Suggestion" - gives some photographs. He criticises the experiments made & considers that they were not rigorous enough conducted so as to exclude all possibility of former knowledge or suggestion.

There is no doubt as Hugh Bennett & Harkniss maintain that these phenomena of transfer are due in great measure to psychical causes, suggestion, expectation, fixed attention of the mind towards the result to be obtained, though it is possible that in some cases at least physical causes may likewise have an effect.

Chapter VII

Before passing from the phenomena of hypnotism, reference may be made to a somewhat analogous state in animals. This state has been known for a very long time. As far back as 1646, Father Kircher showed that by tying the legs of a cock together & holding his head close to a chalk line, he becomes in a short time perfectly motionless. Twenty years ago Czermak repeated this experiment & showed that neither the ligature nor the chalk line was necessary, the same state could be produced by simply holding the animal immovable for a little time. He found that this condition

could be produced in many animals [e.g. sparrows, pigeons, rabbit salamanders & crabs⁽¹⁾]

Preyer⁽²⁾ has investigated this subject very fully, & ascribes most of these phenomena to a paralysis produced through fear. As a rule gentle & protracted stimulation is needed to hypnotic animals. By holding a frog lightly with the thumb on the belly & the four fingers on its back in two or three minutes it becomes immovable & may be placed in all sorts of positions without its attempting any movements. The same state may be produced by scratching the frog's back gently. Quite recently in London a horse was exhibited in which a similar condition was induced. Probably a similar condition of paralysis through fear results from the fascination of a snake in the case of small animal such as rabbit & birds.

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Chap XIII

Just as in the administration of drops we must be aware of the dangerous results which may follow, so also must we be cognisant of the danger of ill effects which may follow the application of hypnosis.

Looking at the charges which have been laid against it by various authors we find a very serious array while others maintain that few or no ill effects follow its use. Let us mention a few of these charges more in detail.

Christon Browne in a long letter to the Brit. Med. Journal says; "I can at once recall 3 cases of insanity which have fallen under my observation, in which the mental derangement was brought on by

(1) Comptes Rendus de l'Académie de Vienne

(2) Die Katalepsie (1878). 1872. p. 361.

B.M.J. 1881. Vol II p 378.

mesmeric experiments, operating on persons of delicate organisation & I have no doubt that, were I to search my experience I might bring a much more serious indictment against Hypnotism as a cause of disease. My belief is that it is demoralising & dangerous to those who practice it & that the amount of instruction to be derived from it is infinitesimal. Its employment scientifically should be as guarded & economical as other experiments on living animals."

Cases have been reported where in consequence of Hypnotism, patients have been affected by persistent headache, invincible desire to sleep & feebleness in the limbs, incapacity for mental work &c. &c.

Several other observers besides Chrichton Browne have recorded cases of mental aberration following Hypnotism, some of them of a persistent type & leading on to suicide.

Another charge which must be laid against Hypnotism is that it gives rise to hysterical convulsions in subjects who although perhaps suffering from latent hysteria, never had had any marked symptom before Hypnotisation. Pities¹¹ relates a case at great length bearing out this fact.

Professor Christenier of Vienna says:- "I have observed many susceptible people who are unwell for a considerable time perhaps days, after a single hypnotic sitting, their nervous system is exhausted & they are prostrated. Should they be often hypnotised well marked hysteria may be induced if they are predisposed to it. Many slightly nervous women may even present a typical hysterical condition after being repeatedly hypnotised.

(1) *Op. cit.* vol II pp. 366-369.

Another charge against it, is that some subjects who have been subjected to experiments have afterwards, attacks of spontaneous somnambulism which as one can easily imagine might be dangerous, either for the patient or for others. In this state, the scenes at which they have previously, assisted, come back to them with more or less force & hallucinations formerly induced may re-appear & have a very disturbing effect on the mind.

The commonest fault of hypnotic experiment is to increase the patient's susceptibility to hypnosis & also his suggestibility in the waking state as well. We have seen how after a time the patient may be put to sleep with a word or a look. Ricket mentions the case of a woman although different to hypnosis at first, latterly fell asleep when he approached her bed. Luckily the remedy for this is quite sure. One has only to suggest that nobody but the doctor will be able to influence the patient.

The dangers of hypnosis from a medico legal point are undoubtedly real. In the hands of unscrupulous persons it can be dangerous, while assaults may be committed just as on persons under chloroform &c.

Charcot says: "Hypnotic experiments especially private are not free from certain prejudicial effects. In the hands of amateurs, it is not possible to point out the indications or contra-indications of cases in which they may be performed. The vulgar propagation of hypnosis in a more or less serious degree, may follow the attendance on public seances. Hypnotism like is closely allied to hysteria & like it may become contagious & epidemic. Medicine alone can discover the therapeutic & physiological applications of hypnosis."

There is this much however to be said, that in nearly every instance the harmful effects have been seen in subjects submitted to experiments by either amateurs or public performers. Nor can we wonder at it

Anyone who has seen many of the public performers of today would be surprised if no ill-effects followed. All manner of hallucinations are evoked, & a good deal of rough & tumble work indulged in, while none of the mesmerists take any trouble to annual suggestion before working. There is no doubt that such performances are degrading & most demoralising both from the subject's & the public point of view. They should be no longer permitted. I have taken opportunity to examine somewhat closely many of the professional regular subjects of the mesmerists who have been experimented on for years, & am convinced, that they are as a general rule persons with little wide power of weak intellect & of a very nervous & excitable disposition. Quite recently at Bath one of the subjects of the mesmerist Kennedy was convicted of stealing from another one. 6.

All observers are agreed on the dangers of public entertainments. The international congress of hypnosis meeting in Paris in 1889 came to the following conclusions:

- 1st Public séances of hypnosis ought to be interdicted by the administrative authorities.
- 2nd The practice of hypnosis as a curative agent ought to be submitted to the law & regulations governing the exercise of medicine.
- 3rd It is desirable that the study of hypnosis with its applications be introduced into the teaching of medical sciences.

On the other hand, the Academy of Medicine of New York after discussion came to the following conclusion in 1888:—"However scientifically the subject may be treated it is open to abuse & its introduction into general therapeutics might be disastrous."

The time has surely come when the government following the example already set by Denmark, Belgium & Prussia as well as many cities throughout Europe

should prohibit all public performance of hypnotism. We are glad to note the conviction the other day of one of these experimenters for defrauding the public & thus obtaining money under false pretences.

While on the subject of fraud, let us mention shortly another form, a sort of quackery by means of hypnotism which has been a good deal in vogue on the continent but which curiously enough does not seem to have spread to England. I refer to the so-called somnambulistic consultations. As far back as the middle of last century we find Mesmer applying his art as a panacea for all the ills flesh is heir to. But it was his disciple the Marquis of Puységur who first instituted these consultations. He thought that certain subjects when hypnotised became possessed of wonderful faculties so that they could see all their own internal arrangement as that of another person to whom their attention was directed, were conscious of their condition whether physiological or pathological & without any previous knowledge of medicine were able to recognise lesions of the different organs & also to indicate the proper remedy to be administered. Thus we find Teste writing as follows:—"A woman in somnambulism knows of her pregnancy from the first hour of conception, she feels if she has a disposition to conceive, & she would not be pregnant & drop till she could indicate with certainty the sex of the child"

The lower classes used to frequent these consultations & doubtless in some cases obtained real benefit. Nor can we wonder very much at it for the credulity of these people would be so great that they would be influenced for

(11) A. Teste, Manuel pratique de magnetisme animal Paris 1853 p. 110-112

good of the remedy prescribed, the result being due to expectance & suggestion, just as we occasionally see cases cured by bread pills given by a doctor who has won the entire confidence of the patient. The cures at Jives ever since places with holy water &c, are to be included in this category.

Let us look now to the expression of medical men who have used hypnosis to a large extent therapeutically. Doctor Lloyd Jackson writing lately says: "In the hands of a conscientious & experienced physician the use of hypnosis is I believe absolutely devoid of danger. This is my own experience & last year I wrote to the chief exponents of this treatment on the continent, in America, Great Britain & Ireland asking them for their opinion on this subject. They all replied that they had never met with untoward results & that they could not conceive of the possibility of such results if proper care & judgment were used." He denounces public performances as being worse than bull-fights.

Dr Bernheim states that hypnotic suggestion used for therapeutic purposes in the hands of an experienced doctor is absolutely devoid of danger. He emphatically declares that all tendency to spontaneous hypnosis may be absolutely prevented by suggestion. He thinks that the hypnotic sleep in itself is as beneficial & free from harm as natural sleep. He quite allows that certain delicate brains predisposed to mental aberration might receive harm from injudicious experiments on hallucination &c.

Allou denies the hypnosis induced in a proper manner can give rise to hysterical convulsions. He admits that nervousness may follow hypnosis but he says that these accidents have been

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caused by faulty methods such as straining the eyes instead of using suggestion, or by an operator ignorant of his subject. He gives 3 excellent rules for the avoiding of nervous sequelae:—

- 1st Avoid as far as possible all long continued stimulation of the senses.
- 2nd Lessen as far as possible all suggestions tending to psychical excitement.
- 3rd Completely neutralise all suggestions before waking the patient.

The summary of the above is that while hypnosis has undoubted dangers, yet if experienced & applied only for therapeutic purposes, to persons who have no accentuated nervous traces, its application is almost always without danger. In many cases I think that as with many of our operations the benefit to be derived quite justifies any risk that may be incurred.

Chapter XIV

Taking for granted then that hypnosis may in certain cases be used for therapeutic purposes, let us see what are these in which it may be applied with some prospect of success. Its uses may be divided into 2 groups I, as an anaesthetic, II. For the alleviation or cure of certain diseases.

Taking first its employment as an anaesthetic we find it has been chiefly used in surgical operations. Though of late years it has been also applied to diminish the pains of child birth.

It has been well known for a long time that it is possible to perform serious operations on a hypnotised person; in France amputation of the thigh has been done under its influence. Shall we possess such

Use in surgery.

Use in obstetric practice

convenient anaesthetics is also reliable ones in chloroform. It is because that there is no occasion to use hypnosis. Kinglake however points out that a doctor in a remote part of the country suddenly called on to perform some serious operation and not having an anaesthetic ready, might try to induce anaesthesia by means of hypnosis.

There would be several drawbacks to its employment. Many persons cannot be deeply enough hypnotised to induce insensibility to pain. As a rule the patient would require to have been previously hypnotised several times & even in these cases the excitement & worry about the operation would often be a complete bar to hypnosis.

Felkin however thinks that in some cases where from diseases of the lungs or heart the administration of ether or chloroform may be inadvisable it may be advisable to resort to hypnosis. We would be afraid that in these cases the shock would prove too much, besides the cases are very few indeed to which with proper care, chloroform could not be administered. We think there is no occasion for its use in surgery at all.

Perhaps as Felkin remarks, it is possible that the employment of hypnosis in obstetric practice may have a wider applicability, though of course here again we are met with the difficulty mentioned before, viz, that to be successful it is generally necessary that the woman must have been several times hypnotised before her confinement, as it is found extremely difficult though not impossible to hypnotise her for the first time when labour has commenced. Another difficulty is that the severity of the pain may awaken the patient, though generally it is very easy to put her over again. In all, summarising the writings of several distinguished acetoneters on this subject - says, "On the whole the results

were not unfavourable; regular & strong uterine contractions took place which could often be influenced by suggestion & were rendered painless. Sallis recommended hypnosis as being exceedingly useful in uterine inertia. Its anaesthetic effect in labour seems to be to possess certain advantages over that of chloroform or ether: - (1) where only one medical man is available who is to perform some operation in which it may be necessary to give an anaesthetic, it is risky giving chloroform, as one can't well attend to the chloroform & the operation satisfactorily. (2) Another advantage in hypnosis lies in the fact that the patient is not cut off from the outer world but is still capable of receiving suggestions & so while unconscious of pain may still give valuable help by attending to & following out instructions.

Telkin quotes several cases from Pritzel, Wagner, Grandchamp &c.

The following case which I believe is the first recorded in Britain is summarised from Kingsbury⁽¹⁾: -
 V.S. aged 17 or 7 months first seen in 7th month of pregnancy. Her doctor stated that he feared the confinement would be fatal. Patient was of stunted growth. She was hypnotised & suggestion made that she should sleep through her confinement. This was repeated at weekly intervals in all 12 times. Kingsbury was called at 7.30 pm on Feb 14th 1891, & found her in labour. She was put to bed & hypnotised, suggestion being made to bear down when a pain came. Although hypnotised she groaned when a pain came on. At 11 pm the child was born absolutely without aid, & the placenta followed 10 minutes afterwards. The patient was made

(1) Brit Med Journal, 1891, Feb 28th.

right bound up & awakened at 11.30pm. She said she felt all right & had no recollection of anything that had happened & was quite positive she had had no pain. Recovery was rapid & the child did well.

Kingsley quite admits that this method will not succeed in every case but thinks that when circumstances warrant any interference with labour in a woman who is known to be susceptible to hypnosis it would be justifiable to try it.

We come now to the other part of the application of hypnosis for the alleviation or cure of certain diseases. Here we enter on very debatable grounds, for we are met just as in the introduction of nearly all the therapeutic agents, on the one hand by those one zealous enthusiasts who seem to look on hypnosis as the long looked for panacea & who consequently apply it to everyone who seeks their advice, & on the other hand by the more numerous band of sceptics who think that hypnosis is unreal & consists chiefly of quackery & deception & that it would be degrading even to mention it as a therapeutic agent. We in Britain have been very sceptical about its use but now the accumulation of reported facts have become so great that it seems to me the time has come for further investigation & we will not be doing our duty unless we examine the pros & cons for ourselves & come to some definite conclusion. The time has gone past for simply saying it is all fudge & that we don't believe a word of it. We must pursue the subject for ourselves & if after investigation & experiments we come to the conclusion that it is a delusion & a snare, good & well, we are the quite entitled to express our opinion freely. We find Dr. James Kerr making extravagant charges against hypnosis & urgently calling on all medical

men to have nothing to do with it"'. This is hardly the correct spirit in which to study the question. As we have before shown, in the hands of a conscientious doctor, it is devoid of danger & we think that medical men before accepting Dr Kerr's dictum should at any rate study the question for themselves. Many other therapeutic agents have had a similar struggle for existence before being generally adopted. Dr Kerr asserts that most of the alleged cures, many of hypnosis are "delusions due to the newborn amazed delight of medical enthusiasts in hypnotism" & compares the effects of hypnotic relief to the evanescent respite during a paroxysm of intoxication. Even allowing that a certain allowance must be made for the enthusiasm of its proponents, surely he does not mean to impute to such distinguished men as Bernheim, Charcot, Voisin & that the results published are entirely the outcome of their imaginations. Of this, there can be no doubt for the facts are vouchsafed by anyone who has made a sufficient trial: hypnosis in many suitable chosen cases is capable of affording either cure or great relief. Considering the present facts I maintain that nobody is justified in absolutely condemning hypnosis from theoretical grounds, however much it may clash with our previous ideas, that it is only after practical experience of its application & uses that one is qualified to express a definite opinion. I am far from sharing the opinion & practice of those enthusiasts who apply it wholesale to everyone coming to the clinic no matter what the matter is, as is done in many towns on the continent, but I hold that in judiciously chosen cases it is capable of giving great relief & in many cases, of producing positive & permanent cure.

"Should Hypnosis have a place in recognized Therapeutics" '890.

of course, hypnosis will not cut short the course of a pleurisy, specific fever, or arrest the growth of a cancerous tumour, or repair organic disease, but even in these cases it may relieve the accompaniment just as efficiently as anodynes & opiates, in many cases of organic lesion, there may be a functional lesion extending wider than the organic one, & this functional lesion may be benefited by the treatment. As an example of the above, it may be mentioned that Charcot considers the hemi-anæsthesia which sometimes develops in consequence of lesion of the posterior third of the internal capsule not due to the cutting of the nerve fibres, but due to a simple functional trouble of the subjacent ganglia, & this is often capable of being cured by suggestion or the application of a magnet. On turning to the published statistics of writers on hypnosis, one is certainly struck with the very favourable results of its application. "Felkin" has compiled a table from the works of Bernheim, Lookey, Wagner, Von Eiden, &c. In this he gives 566 cases of which 240 cured, 200 benefited, 72 failures & 52 retired after two or three sittings. No doubt this table gives much too rosy an appearance to the results to be expected. In many cases treatment had to be continued for a long time in others an apparent cure seemed to be produced at first, while the patient we may suppose was really under the influence of post-hypnotic suggestion & the result was at once put down with sufficient time being allowed to notice whether a relapse took place. Then again many cases of cure are those where pain was the only thing complained of, & no doubt, hypnosis is

very efficient for removing pain in many instances. I have several times seen neuralgia completely removed by its means.

Before going on more particularly to study the cases of cases in which we may expect some good from its application, we may pause to enquire why it has a therapeutic effect. The old idea used to be that the hypnotic sleep of itself had a healing action & patients used to be kept in it once or twice a day without any suggestion being given, under the idea that the mere sleep would ameliorate the neuropathic condition. Undoubtedly many cases of hysterical spasms, paralysis or rhythmic motion cease during hypnosis, but immediately recommence whenever the patient returns to the normal condition, unless suggestion to the contrary has been made.

Only in special cases is the sleep itself of any use, as in the following instances: 1st As an anæsthetic means as we have before seen in surgical or obstetric practice. 2nd In a hysterical patient who has been previously hypnotised it may be used to cut short the convulsive attacks, just as chloroform may be similarly employed. 3rd In certain cases when a noisy delirium supervenes after a hysterical attack & the patient is disturbing & preventing from sleeping others in the ward, then hypnosis may be induced.

In general the good effects of hypnosis are due to the facts that as we have previously seen there is an increased susceptibility to suggestion. It is by means of the suggestion that therapeutic effects are produced. We have seen that in persons who have been hypnotised several times there is developed an increased susceptibility in the waking state as well which further aids our endeavours towards cure. We have previously studied the post-hypnotic state which is of the greatest influence in the cure. We have

seen that hallucinations are given during hypnosis may persist after the awaking. It is this which aids the treatment. It would not be of much good if we could remove pain, paralysis or spasm, only during the hypnotic state, but thanks to post-hypnotic suggestion it is possible to make the good effects last long & in many cases become permanent & so lead to a complete cure.

Apart from the removal of certain bodily conditions such as paralysis of some kind, hypnosis is also very useful in many cases for the removal of pain. Thus in acute cases such as pleurisy, its application by removing the pain, may accelerate the healing, just as opium is supposed to do. Then again it does not produce any of the bad effects that opium may have such as headache, gastric disturbance &c.

In like manner it may be of distinct service in those cases where the patient's strength is being gradually worn out from insomnia, where ordinary drugs have had little or no effect towards producing the desired result.

It is to the suggestion & not to hypnosis itself that the therapeutic results are to be ascribed, this latter only being the means of increasing the patient's susceptibility to the former. There is nothing unreasonable in this. So what an extent does suggestion & expectancy enter into everyday treatment? Why do two doctors using the same drug get similar different effects in similar patients? Often because their manner of using it is different. One will perhaps say, "Take this I feel convinced it will do you good. It has relieved many cases just like yours," while the other may perhaps say, "Try this, it may do you a little good. If it has no effect come back in two days & I will try something else."

Of course I don't mean to say this is so in all cases & that drugs have no physiological effects. Far from it but I am convinced that a good deal of the result can be made to depend on the suggestions given at the time the drug is administered. I have several times while supposed to be changing a medicine only changed the flavouring agent & been told that the new medicine was having much more effect than the old one. Of course in these cases I quite agree that the active drug had more time to produce its therapeutic effect, but I think that does not explain all. Again it is undoubted that for patients who believe in homeopathy, this system does so & we can imagine that the physiological action of the drug given in such infinitesimal doses can contribute much towards the result. Similarly I have met many persons who after personal trial of Mattei's remedies the so called ~~blue~~^{blue} & green electricities have assured me that they have got great good from them. Are we to put down these persons as deceivers? I don't think so, I have no doubt but that in many cases real good has resulted, all due to the suggestion & expectancy. As far as can be made out from analysis many of Count Mattei's remedies contain nothing but pure water, but the manner of giving produces the effect. The patient is told to take just a certain number of drops, not one more or one less, at very frequent intervals & so the attempted cure is kept always before his mind. Most of the troubles cured in this way are purely functional. In the same manner is to be explained the undoubted good derived by some patients from such objects of quackery as electric balls &c. We have all heard of the great cures produced in certain cases by pills of mica.

panis.

One of the most suitable states of mind for receiving suggestions is that produced by religious excitement & faith. Many places & objects have had a great curative effect such as the sacred waters of Lourdes, the Holy Coat of Treves &c. Many pilgrims return from their journeyings to sacred shrines, cured. Most of the cases so relieved have been hysterical e.g. paralysis, aphonia, amaurosis &c.

It is not alone during hypnosis that suggestion is active for it enters largely into our daily life. No doubt we are all apt to be influenced by others. Spinoza says:- "Our illusion of free will is but ignorance of the motives which make us act". It is familiar to everyone, how a person can be made to feel ill, if several of his friends at different times, assure him that he is looking far from well & ought really to be at home.

It has been quite recognised that the influence of the mind over the body is very great. Thus we have the excitement & palpitation produced in healthy persons who are having their chests examined; paralysis from fear, micturition from fear or emotion diarrhoea or sickness produced by the reminiscence of some nauseous sight or smell. Several amusing cases were given in the number of the British Med. Journal in Jan. 1892. of women who imagined they had become pregnant. All the signs developed, the abdomen & breast enlarged, morning sickness &c., the woman felt the movement &c. the doctor & nurse were engaged & at the termination of the nine months the doctor was sent for & found everything prepared as if pains like labour ones coming on, but on examination found the uterus in quite a normal non-pregnant condition. Again we find in patients

who for some reason have been receiving hypodermic injections of morphia, pure water may be used for several nights yet the same results follow equally as well as if morphia had been used.

Dr Chiarleoni⁽¹⁾ reports a case in which a young woman, who had up till then been healthy, developed serious hysterical affections such as convulsions, vomiting, abdominal pain, insomnia, loss of flesh &c. in consequence of a frigus. All kinds of medicinal & moral treatment were tried without effect, & a surgeon declared that resection of the ovaries was the only resource left. The patient was very anxious to have this done but they hesitated for a long time. At last yielding to her entreaties, she was prepared for the operation was anaesthetised & a superficial incision of the abdominal skin was made with opening the abdomen, & this was immediately closed & sutured & the wound antiseptically dressed. The cure was complete, the accidents disappearing as if by magic. Many cases of amelioration or cure are reported after a single abdominal exploratory incision.

This influence has long been recognised by our clinical teachers & writers.

Davy reports the case of a man who was cured of paralysis by putting the thermometer into his mouth. John Hunter said, "I am confident that I can fix my attention to any part until I have a sensation in that part."

Stokes in his "Lectures on diseases of the heart" points out how recovery is retarded by depressing emotions. As regards the treatment of cardiac neuralgia, he says that one of the most certain remedies consists in

(1) Gazzetta degli ospidali Jan 1888.

removing from the patient's mind, the fear that his heart is organically diseased.

Frommeau, declares that the whole digestive system including the liver & pancreas may be affected by the mind.

Paget in his "Lectures on Surgical Pathology" says that there is scarcely an organ, the nutrition of which may not be affected by the mind. & gives an illustration the case of a breast tumour which disappeared after he had assured the lady it was not cancer & that it would go away.

Maudsley points out the same thing in his pathology of the mind & cites as an example the fact that soldiers under the excitement of battle very frequently don't notice that they are wounded.

Hack Luke remarks that mere concentration of the mind may excite the action of some parts & lower that of others.

The power of suggestion in the waking state has long been recognised. As showing this power the case of the French criminal is often quoted. It seems to me to have been unjustifiable on account of its cruelty. The experiment was as follows:— It was suggested to him that he was to be bled to death. A slight prick not sufficient to draw blood was made in his forearm & warm water allowed to trickle down his arm into a basin while the experimenters who stood round made remarks about the failure of the pulse, his pale & sparse appearance &c. The experiment was too successful, the criminal really died. A somewhat similar story is related about an unpopular janitor at Aberdeen, though I have never been able to verify this report.

In some patients chiefly in those belonging to the hystero-epileptic class it is possible to

produce *opero* paralysis or anaesthesia by mere suggestion even in the waking state, Giles de la Tourette" in his most recent work "Traité clinique et thérapeutique de l'hypnotisme d'après l'enseignement de la Salpêtrière" says that besides the physical stigmata now so well known, there is also *psychical* stigmata. "That which characterizes the mental state of the purely hysterical patient, quite exempt from neurosthenia or degeneration is an extreme suggestibility which makes of that person in many circumstances a veritable automaton.

Again on the other hand patients may in some cases be relieved of these conditions by mere affirmation or command. Charcot has several times been able at once to cure a hysterical paralysis of the legs by ordering the patient to rise and walk across the room. I have seen it stated more than once that Charcot did not believe in suggestion or its application to therapeutics. This is a mistake: as giving his views at the present time I will translate from a recent clinical lecture of his given at Tuesday clinique at the Salpêtrière & published in *La Semaine Médicale* of Dec 2nd 1891. The case is one of hysterical paralysis developed in a soldier as the result of being struck by lightning. Talking of the treatment he goes on to say: - The paralysis with which he is affected is psychical comparable to those produced in experimental hypnosis. What in effect is the state of hypnosis, if not a mental state in which suggestibility is enormous? The person who has just been struck by lightning or who has undergone some strong

"La Semaine Médicale 1891. 9^e Dec p. cc xxxv.

moral shock is in a special state comparable to hypnosis; to him suggestion is easy. It is not certain that he does not give himself suggestions in his dreams in which he again sees his accident & the paralysis could quite well be nothing else than the result of these suggestions.

Then you will say 'why not treat this patient by hypnosis?' In the first place because he is not hypnotisable & in the second place because I don't wish to run the risk of provoking supplementary "attacks of nerve" the issue of which I could not foresee. There is another way, less dangerous, which we are going to employ here & that is suggestion in the waking state. For example, you have developed in a hypnotised woman a paralysis of the left arm. On awaking, this persists. You say to her, 'Your left arm is not paralysed, you can move it'. At first perhaps there is no result, you then command her to move the fingers of the right arm; little by little the fingers of the left hand imitate these movements & you thus free the entire member bit by bit.

Here the conditions are not absolutely identical although it concerns psychical paralysis; we will proceed as follows: We ask him to give us every hour his force as measured by the dynamometer & the figure he brings us must be greater every time, one obtains at first say 10 the 12, next time he gains a little more & the amelioration thus supervenes gradually. However we must not have too high hopes; these paralyses although psychical are extremely persistent even more so than some organic paralyses."

What then are the cases to which hypnosis may be applied with some hope of success?

In the first rank comes hysteria not only the full

developed type with periodic convulsions & all the other accompanying phenomena but also in those cases in which the symptoms are not so fully developed but only marked by some of the well known stigmate such as contraction of the visual field, loss of pharyngeal reflex, presence of paralysis spasms &c.

The in the next rank come certain vicious habits & functional troubles generally observed in neurotic subjects such as morphinomania, alcoholism, organic insomnia, incontinence of urine &c. In this class are also included the troubles due to neurasthenia such as "railway spine" and other nervous disturbances resulting from shock. We will see later on about its employment in gynaecological practice.

Let us take first the cases of hysteria. we find that writers are divided as to how far hypnosis should be applied to hysteria. Thus Dr Bastian in the Lancet of Dec. 31st 1891 (p. 973) writes as follows: "with regard to hypnotism it may be said that it is a method very little tried in this country & the results in France are not particularly encouraging. Then we find such authors as Giles de la Tourette & Guignon giving their opinion that it should be tried not in those patients who are already the subjects of fully developed hysteria, who in fact have nothing to lose & everything to gain by its employment. Others again such as Pitres & Bernheim, think that it should not be restricted to these special cases & that it may be tried in all hysterical patients.

There is no doubt as we have seen when discussing the dangers of hypnosis that certain hysterical patients may be made worse by a course of hypnosis. Still it must be

remembered that in the cases reported the subjects had been experimented on many times & shall have been used for demonstrations & all manner of experiments performed on them so that they have been subjected to hallucinations &c. We can hardly wonder that these cases thus have been rendered worse & a part of the trouble seems also to be due to the method employed. In all the literature of the subject I am not aware of a single case in which the symptoms were aggravated, where the suggestion method was employed & none but therapeutic suggestions given so that I don't think a conscientious doctor who has had any experience of hypnotism need have much fear of rendering these cases worse. On

On the other hand the benefit is sometimes almost miraculous, though of course it fails completely in many cases, whilst in others the patient has to be hypnotized several times before much good results from the treatment. Even admitting that there is a little risk in hypnotizing hysterical patients, in many of the cases I believe that the benefit to be obtained, if successful quite justifies any little risk that may be run. How often is this so in many of our surgical operations!

I do not propose to give examples of the cure of all sorts of hysterical affections such as aphonia, amaurosis, painful spasms, paralysis, delirium but will quote some examples from different authors as types of the amelioration or cure. We all know how variable & uncertain is the treatment of hysteria, some yielding to nearly any sort of treatment, whilst others resist everything that may be tried. I believe that hypnosis is worthy of being given a place as an additional

agent often useful in the treatment of hysteria.

The following cases are from Bernein's book. I merely give the headings. Reference may be made to the work for details.

- Ob. XV. (p. 277). Hysterical crises with hysterical somnambulism. Rapid cure by hypnotic suggestion.
- Ob. XVI. (p. 279). Hysteria; - Anaesthesia. Spinal Pain. First suggestion efficacious in restoring sensibility. Increase of dynamometric force. Total cure in three sances.
- Ob. XIX. (p. 283) Symptoms of hysteria for 5 months paroxysms of weeping accompanied by convulsions. Pains loss of appetite sadness. Complete cure after two suggestions.
- Ob. XX. (p. 284). Violent hysterical paroxysm dating back one year. Complete cure from time of first suggestion. "In this case definite cure took place after the first sance. This is not usual, as we have seen. It is often necessary to follow up the disease for several weeks, sometimes for months, in order to eradicate the symptoms & prevent the occurrence of relapses." (p. 285)

Bernein gives many such cases but these are sufficient.

Charcot⁽¹⁾ relates the case of a young girl aged 17, who on account of a slight strain of her foot on getting out of bed one morning was affected with hysterical aff. contraction of the left leg. The deformity produced by the spasm was a very accentuated talipes varus with rigidity of the knee & rotation of the thigh so that the toe of the left foot was placed behind the right heel. The rigidity was extreme, persisting day & night even during sleep. In this case there were none of the usual hysterical stigmate present, but she exhibited to a marked degree

(1) Charcot. Œuvres Complètes. vol. IX. p. 462 et seq.

the diathesis of contracture so that the muscles could be made rigid by ordinary stimulation. The spasm had lasted for 6 months when the treatment was begun. The patient was several times hypnotized & during the hypnotic sleep there could be obtained by suggestion, the complete disappearance of the deformity & rigidity & all the normal movements could be easily performed, but as soon as she was awakened the club foot immediately reappeared. At least a series of hypnosis were performed during a period of two or three hours, & the suggestions were repeated more & more imperatively so that at last the removal of the spasm was complete even in the normal state.

Schnitzler's & Amadé's both record cases of hysterical aphonia cured by means of suggestion.

Debove⁽³⁾ mentions the case of a hysterical girl suffering from polyuria. After a few sittings, the quantity of urine passed was reduced to half the quantity. In connection with this case it may be mentioned that in some cases of diabetes of a nervous origin, suggestion has a great effect in diminishing the flow of or urine. An interesting case bearing on this is given by Kingsbury. Probably in this case the origin of the diabetes lay in some vaso-motor disturbance. We have seen that the vaso-motor function may to some extent be influenced by hypnosis.

- (1) Schnitzler: Über funktionelle Aphonie, und deren Behandlung durch Hypnose und Suggestion. Internat. Klin. 1889.
- (2) Amadé, Mutisme hystérique guéri par suggestion hypnotique. Annales 1884.
- (3) Debove. Le Semaine médicale 1891.
- (4) Kingsbury. Op. cit. Case 49. p. 200.

Let us look now at the employment of hypnosis in gynaecological practice. At first sight one is inclined to think that it can do little or no good in this department. Dr Feltkin that he does not wonder at persons' disbelief for unless such cases have been seen they have a certain Munchausen like flavour about them. When Boivin read his paper at the Leeds B. M. Association meeting of 1889 & referred to his treatment of cases of amenorrhoea, menorrhagia, dysmenorrhoea his statements were received with ill-disguised incredulity & yet every observer who has used hypnosis as a therapeutic agent to any extent, can report many cures or ameliorations of these disorders. When we inquire more closely into the subject we cease to wonder so much about it for undoubtedly the menstrual function is dependent to some extent on the mental faculties. We are all familiar with the fact that any excitement such as great joy or sorrow may interfere with the menses for some time. With what ease in some persons does a slight chill or damp feet cause acute suppression. Moll mentions the fact that among many young ladies who wish to go to a dance & are afraid that the appearance of the menses may prevent them, it is quite the custom to tie a piece of thread round their little fingers & by being thus constantly reminded of the object, after they are successful in postponing their appearance for a few days. I have been struck with the large number of gynaecological cases in which after the most careful physical examination nothing abnormal could be made out. This is partly due to the difficulty of diagnosis, but besides that there is a large class of cases in which the affection is largely neuritic, & these are often very difficult to cure. Look at the

large number of cases under the head of spasmodic or functional dysmenorrhoea. I have seen many of these cases treated very vigorously both medicinally & operatively, & yet after perhaps three dilatations of the cervix or as many curettings of the uterus, the patients have received no benefit. In many of these neurotic cases there is no doubt that hypnosis is capable of giving relief. We know how much these patients are incapacitated for work so much so that many hold that it is not only justifiable but compulsory to extirpate the ovaries even though these should be perfectly healthy & bring on thus an artificial menopause though this result does not invariably follow for lately I had a patient both of whose ovaries I myself saw completely removed at the Soho Hospital in London & who nevertheless continued to menstruate afterwards. Certainly before resorting to such a serious operation, hypnosis should be given a fair trial. No doubt in some cases it would fail but what harm would be done, the operation could then be performed as a 'dernier resort' but in many cases I am sure it would not be necessary. Let me give a few examples proving the truth of what has been said:

Forel gives the following case; - A servant maid suffered from profuse menstruation, becoming worse in spite of vigorous treatment. The periods came on at intervals of 15 days lasting for 8. She was very anaemic; the appetite & sleep was bad when brought to him she had been losing excessively for 6 days. After hypnosis he suggested that she should at once stop that she should eat & sleep well. The loss stopped. Real time he suggested that she should

not be unwell for 6 weeks & should only lose for two & a half days. All went well, period coming on after 27 days (a day earlier than he suggested) but only lasting 2 days. Subsequently she menstruated every 6 weeks & only lost a moderate amount. In this case the cure was unusually rapid. It is often necessary to repeat the suggestion for some time.

The summary of the following cases is from Kingsbury⁽¹⁾. J.R. aet 26, suffering from menorrhagia with acute neuralgic pain in right shoulder & arm, also troubled with night-mare. After being once hypnotised, she became regular, slept soundly, the pain was gone & she felt a new woman.

M.B. aet 22, suffered from intense dysmenorrhoea. She was hypnotised twice before the period & menstruation was painless. Suggestion was then made twice in the following month & she has now had 6 periods absolutely painless.

F.C. aet 29, suffering from ovarian pain & dysmenorrhoea. Cervix had been 3rd dilated, once followed by inflammation so that her condition was worse than before. She had to give up her occupation. Several gynaecologists had advised oophorectomy. After a fortnight's treatment the pain was completely gone & she resumed her work.

A.M. aet 26, Menorrhagia with anaemia & headache. Hypnotised 4 times & the periods became normal both as to time & quantity & the patient regained her colour & strength.

Similar cases are reported of Bernheim² Voisin³ Gascard⁴.

(1) Kingsbury, Op. cit. Cases 18, 36, 35, & 36.

(2) Bernheim, Op. cit. Observations CIV & CV, pp. 399-404.

³ Voisin: See report of Leeds meeting 1889.

(4) Gascard: Influence de la suggestion sur certains troubles de la menstruation (Congrès de l'hypnotisme tenu à Paris en 1889).

The treatment of insomnia by means of hypnosis is very successful. It is found often to succeed when most of our ordinary hypnotics fail. Where it is not desirable to depend upon opium. Everyone who has used hypnotic therapeutics reports cases in which its employment has been followed by the desired effect. One good thing about it is that nearly any person who is susceptible at all to hypnotic suggestion, can be put to sleep at the first attempt & even in very obstinate cases two or three trials will in the great majority of cases, be followed by success. The degree of hypnosis required to induce sleep is very slight & in many cases it is difficult to say whether natural or hypnotic sleep has been induced. It is useful in all cases where the want of sleep is greatly reducing the patient's strength. Whittle in his article on insomnia in his new "Dictionary of Treatment" says:— "Hypnotism has been recently tried with success for insomnia, & great interest attaches itself to the future trial of this mysterious agent. There are cases of inveterate insomnia which are occasionally met with & which resist treatment by all hypnotics owing to the failure of the drugs to induce sleep, or owing to the terrible depression following their action. Static electricity, massage & other means enumerated at the commencement of the present article, if tried unsuccessfully, leave nothing but this last mentioned agent as a last resource. In such cases, if hypnosis succeed even in giving temporary relief, an immense gain to therapeutics will result." It is needless to quote specific examples on this subject, all the authors report many cases.

I am whether dependent on rheumatism, or neuralgia, or symptomatic of some such disease & locomotor ataxia,

1) Whittle. Op. cit. page 422.

Many cases of the cure of facial neuralgia, i.e., lumbago, sciatica muscular - articular rheumatic pains are given by various observers. Liégeois mentions the case of a woman who had suffered from sick headache for 6 years and who after a few hypnotisations was completely relieved. There had been no return of the pain a year after. Bernheim⁽¹⁾ gives 19 cases of the cure of the pain of muscular & articular rheumatism. Of course he does not in these cases pretend to have ameliorated the anatomical condition of the joints, but simply to have removed the disagreeable symptoms.

With regard to epilepsy different experimenters have had various success. The history of these cases ought to be very thoroughly enquired into so as to exclude all possibility of a wrong diagnosis such as mistaking for epilepsy a case due to hysteria. We know how closely some of the hysterical seizures imitate an epileptic one. I don't think hypnosis will be of much avail in true epilepsy, except perhaps used as a means of checking the aura in those cases in which it is typically present. However it is found that when an attack is impending it is very difficult to hypnotise the patient.

Excellent results are obtained from hypnosis in the treatment of incontinence of urine especially in children.

This condition is often very obstinate resisting treatment both medical & surgical, & often seems to be due to some functional nervous derangement, the cause of which in many cases it is impossible to find out. Even by the most careful examination. In those cases hypnosis is capable of giving great relief.

(1) Bernheim, op. cit. cases 80-98. p. 370 et seq.

Voisin⁽¹⁾ of the Salpêtrière & others have used hypnotism in the various forms of insanity. The great difficulty here is that many patients are insusceptible to this form of treatment. Great patience & perseverance are necessary. Voisin often spent 2 or 3 hours in endeavouring to hypnotise one person & if unsuccessful one day, tried again the next. He advises one to avoid inducing the cataleptic stage & only to treat those cases susceptible to suggestion. He states that he has cured cases of hallucination, disturbances of special or general sensation suicidal tendencies & acute mania. A series of experiments were tried in England by Drs Smith & Myers without however very definite results either one way or the other.

Felkin⁽²⁾ refers to its use in correcting moral perversion of children & quotes several interesting cases from Continental authors. Kingsbury⁽³⁾ also reports a similar case. Lloyd Luckley holds that by a judicious use its employment is of great effect in developing weak faculties & calling latent powers into existence.

Another class of cases often successfully treated is that of certain vicious habits or moral ailments as Kingsbury calls them such as dipsomania, morphinomania, taking of chloral, cocaine & onanism.⁽⁴⁾

Felkin declares that good results can be obtained in most patients in whom one can induce an ordinary degree of somnambulism.

(1) Voisin: - Revue de l'hypnotisme t. II p. 4. t. III p. 353.

(2) Felkin. op. cit. p. 60-62.

(3) Kingsbury. op. cit. p. 41, Case 41 page 190.

(4) Revue de l'hypnotisme. t. III p. 130. t. II p. 67.

Dr. Norman Kerr, on theoretical grounds, combats its employment for the cure of alcoholism & says that no doubt many of the cases will relapse. Well it is something to produce even a temporary improvement in such a condition, & if the suggestion be repeated at first at frequent intervals, then separated by longer & longer periods, in many cases the good result will become permanent. The treatment is carried out by impressing on the mind of the patient how much better he will be without it & making him promise never to touch it again & endeavouring to create a disgust for alcohol. Juckey gives a case in which he suggested to a drunkard that alcohol was poison to him, & the taste of it in future would make him ill. Afterwards he always vomited when he attempted to take any alcoholic liquor. In most of these cases the suggestion must be repeated at intervals so as if possible to prevent relapse.

Kingbury⁽¹⁾ gives the following example:—

G.H. act 30., a medical man, has become a complete wreck owing to the use of injections of cocaine & morphia using 8 grains of each daily. He had the restless appearance of a lunatic. He was hypnotised & became much calmer giving up the use of cocaine at once & the morphia within a week was reduced to 2 grains. Five sittings were given during the week. He then felt so confident that he insisted on returning home & beginning work again. Unfortunately he relapsed after a time. It is perhaps reasonable to think that if he had remained longer under treatment & had had the suggestion possibly renewed from time to time a cure might have ensued.

(1) Kingbury. Op. cit. Case 40 p. 190.

Juckey relates the cure of an inveterate smoker which is interesting:— F., a University professor was hardly ever to be found without a cigarette in his mouth. He was highly irritable & nervous (rather a trying condition for a teacher) & suffered from sleeplessness & atonic dyspepsia. Although advised by several men that it was ruining his health he found himself quite unable to give it up. He was hypnotised & suggestion was made that he should no longer have a desire for tobacco & that he should feel much better for leaving it off. He at once gave up smoking & has felt no inclination for it since.

Chap. XV.

These examples which I have just given illustrate the fact that in certain well chosen cases, hypnosis is capable of doing good. What exactly these cases are in which its application may do good cannot be said to be as yet definitely decided. Only the accumulation of experience will solve this problem. but at present it can only be said to be in the experimental stage;— after a time we will come to know more particularly the cases in which it may be contra-indicated. At present, this much may be said, the evils resulting from its use by a skilled medical man are chiefly theoretical & imaginary.

Having decided then to give hypnosis a fair trial let us see how we are best to carry out the method. There are certain rules to which it is well to adhere.

- 1st. Never hypnotise a patient without his or her consent & if possible that of the friends as well. It is better never to solicit this consent but to let it be spontaneous

2nd. If the patient be a lady never hypnotize her except in the presence of a third person. By this means, just as in the examination of a woman, one is protected from any false charges that may be made for the purpose of buying blackmail.

3rd In no case ought any experiment to be tried without the patient's consent & wish. None but therapeutic suggestions ought to be made or if made should be completely neutralized before waking the patient.

The greater our knowledge of the patient the greater is our chance of success. We have seen previously that some patients are more susceptible to persuasive suggestion than to direct affirmation while with others it is the reverse so our manner must be with one commanding & dictative, with another persuasive & argumentative.

As in the exhibition of drugs we must be careful not to prescribe incompatibles so we must take care that our suggestions don't interfere with or neutralize each other. Liebeault⁽¹⁾ gives an instructive example which once occurred in his practice. For some reason he ordered one of his patients to take water 2 or 3 times a night. Previously he had commanded the person to sleep throughout the whole night. Soon the patient returned in a great state of alarm, a new symptom had developed viz, nocturnal incontinence of urine. Liebeault perceiving the cause soon made the necessary suggestions & the patient left cured, wondering at his powers.

We must not however be too sanguine about the success of hypnosis in the treatment even of purely

(1) Liebeault. *Confession d'un médecin magnétiseur* Rev. de l'Hyg. p. 142

functional cases such as hysteria. In many cases it will fail.
Let us look at some of the reasons for failure.

In the first place we may find that it is impossible to hypnotise the patient, & especially is this the case with hysterical patients who don't seem to be able to concentrate their attention sufficiently on the purpose in view. Pitres¹¹ says as the result of his observations that aptitude for hypnotisation is only met with in $\frac{2}{3}$ of hysterical women & in $\frac{1}{5}$ of hysterical men.

Sometimes people who have been previously hypnotised are incapable of being affected when one endeavours to treat them. Here, excitement acts as a complete bar to success. However, to obtain curative results it is often not necessary that the patient should be very deeply hypnotised. We have seen that such is the case in mania. Then again we have seen that suggestibility is one of the stigmata of hysterical patients so that with some, then it is possible to employ suggestion in the waking state as a therapeutic agent by such means as bread pills, &c.

Some hysterical people patients even when hypnotised are not susceptible to suggestion so that it is impossible to remove the affection such as paralysis or spasm by this means. This is quite the exception. In general it is quite easy to remove it for the time being when hypnotised even though it should reappear immediately the patient is awake.

In several cases after a longer or shorter period of apparent cure the accidents have reappeared much the same as before. We have before mentioned that a sufficient time had not been allowed to elapse before a given case could be definitely stated as cured,

¹¹) Pitres. Op. cit. vol II p. 404

thus the striking statistics of some of the enthusiasts were obtained & are not quite to be relied on. In most of these cases however renewal of treatment soon gives relief again & if persisted in, the cure ultimately becomes permanent, though in a few cases suggestion seems to have less power in the second application than in the first.

Sometimes it happens that one symptom caused to disappear by suggestion is replaced by another of a more disagreeable nature so that the patient is glad to return to her former state. Pitres relates⁽¹⁾ the case of a lady troubled with vomiting which he stopped by suggestion, but following that she had such excessive headaches, which were removed by suggestion & the vomiting re-appeared.

To conclude let me quote the above mentioned author's closing remarks:— "In resume; gentlemen, hypno-suggestive therapeutics are only applicable to a limited number of cases; undoubted successes must be put to its credit, consequently we must know how to employ it on suitable occasions, but we must not ask from it more than it can give. nor employ it systematically in the treatment of all diseases. To sum up my opinion in a few words, I will say to you, 'Make use of suggestion, don't abuse it. Remain physicians, don't become ~~negative~~ hypno-users⁽²⁾'" (2)

Finis.

(1) Pitres vol II. op. cit. p 414

(2) " p. 415.

The bibliography of hypnosis is very extensive. Some idea of the quantity of works published may be gained from the following taken from Felkin (p. 4). In France between 1860-1888 179 papers & books were published on it. In England & America between 1863-1887. 39 (most between '43 & '53). In Austria & Germany 1882-1888 118 books & papers.

The most complete bibliography is given by Max Dessoir: -

"Bibliographie des modernen hypnotismus" Berlin 1881. Reference is there given to 801 works by 451 authors & 207 periodicals.

In addition there is the "Revue de l'hypnotisme" published periodically in France besides numerous articles in the ordinary medical journals. Already 3 International Congresses have been held in Paris on this subject & their "Comptes Rendus" are very valuable for reference.

The chief works I have consulted have been: -

"Der Hypnotismus" by A. Moll. Berlin 1888.

"Suggestive Therapeutik", H. Bernheim Nancy. translated from 2nd edition by C. Hester M.D. New York. 2nd Edition 1890.

"Leçons clinique sur l'hystérie et l'hypnotisme" par A. Pitres de Bordeaux. Paris 1891.

"Œuvres complètes de J.M. Charcot" Tom I, II, III. IX Paris.

"Études expérimentales Cliniques sur l'hystéro-épilepsie ou grand hystérie". C. Richet. Paris 1887.

"Hypnotism" R. W. Felkin. Edinburgh 1890.

"Psycho-Therapeutik" of C. Lloyd Luckey 2nd Edit. 1890

"Animal Magnetism" of Binet & Féré. International Science Series. Vol. 60. Paris 1887.

"The practice of hypnotic suggestion" by E. Kingbury MA. M.D. Bristol 1891.

"Hypnotism of Animal Magnetism" R. Heidenhain. Prof. Physiol. Breslau. Translated by L. C. Woolbridge M.D. Preface by S. J. Romanes. 2nd Editⁿ. London 1888.