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# HYPNOTISM

#### AND

# HYPNOTIC SUGGESTION

## A SCIENTIFIC TREATISE ON THE USES AND POSSIBILITIES OF HYPNOTISM, SUG-

GESTION AND ALLIED PHENOMENA.

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#### By JOHN W. SLAUGHTER, A. B., B. D., University of Michigan.

The topic receives its significance from the fact that suggestion is by far the most notable of the phenomena seen in hypnotism, also that its investigation is necessary to any kind of theoretical explanation. So many of the superstitions associated with abnormal psychic phenomena and long fostered under a respectable guise by various "Societies for Psychical Research," have been cleared away in late years, that we are at last in a position to investigate them along scientific lines. In order to do this, we must exclude any attempt at explanation based on the unknown or occult, and with the safeguard of scientific incredulity, proceed on the basis of the meagre but demonstrated facts at our disposal. The term "suggestion" means more than anything else, the clearing away of a long list of mysterious influences, and even to-day some of the old associations are attached to the word as may readily be seen from the book by Schmidkung and, perhaps in lesser degree, that of Sidis. But using the term in its entirely legitimate sense, however useful it may be in covering a certain group of facts, as attested by the excellent work of Bernheim, still it has for the psychologist little or no meaning. Only in proportion to a proper understanding of the facts upon which suggestion as a process rests, does it attain psychological value. These facts may be covered by the general term suggestibility, and it is our purpose to give a brief sketch of them on the basis of our present knowledge.

Theories attempting an explanation of the processes have been offered by various writers. As chief among those who attempt a purely physiological explanation may be mentioned Forel and Lehmann. The former of these\* regards the mental life as having at its foundation a combination of separable brain forces, one of which corresponds to consciousness. For him suggestibility means the ability to break up the normal inter-con-

\*Der Hypnotismus.

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meetions of these forces, and the formation of new, at the instigation of the suggesting agent. In opposition to this theory we may urge (1) that the only connections we know are those between psychical elements, that is, ideas, and (2) that such an appeal to suppositious brain forces, about which the physiologist knows nothing, is a clear violation of scientific method.

Lehmann proceeds from the partially known facts regarding the vasometer control of blood in the brain, and makes suggestibility depend upon the variable supply in the different brain centers. His difficulty is that he makes what may possibly be regarded as a parallel physiological process the sole cause of the condition.

The only purely psychological theory, so far as I am aware. is that of Pierre Janet<sup>1</sup> and Max Dessoir,<sup>2</sup> incorporated by Moll in his, in many respects very same book,<sup>3</sup> the theory of the socalled "double consciousness." According to this view, there are two forms of consciousness, an "over" and an "under" consciousdess, in the normal mind. The existence of the "under" consciousness is supposed to be proved by such facts as the sudden coming in of a name which we have tried in vain to recall, dream consciousness, the memory during hypnosis of a like previous' state, the carrying out of a post-hypnotic suggestion, etc. Suggestibility means in this case the capability of exciting this lower consciousness and the carrying over of the excited part into the higher consciousness. We may say in opposition to this view (1) that introspection, our only legitimate guide here, discovers to us only one kind of consciousness. (2) This "under" consciousness. as the depository of elements of a jack-in-the-box character, gives us a problem in retention and recall, and not in the ultimate nature of consciousness.

The primary fact from which we must start is that consciousness is not a homogeneous unity, but falls under analysis into more or less distinct divisions. Of these, certain ones as sensations and ideas, can be traced with considerable facility, perhaps because of their partial abstractness. The more complex divisions present themselves as groups of ideas held together by what are

1. Revue Philosophique, XXII., p. 577. 2. Das Doppel-Ich. 3. Der Hypnotismus.

called associative and apperceptive connections. These groups are permanent in proportion to the closeness of the internal connections. Consciousness as a whole, reacting through the process of attention upon any particular group, gives to it, or apparently discovers in it, a certain degree of self-dependence and distinct-What we mean when speaking of the normal mind nėss. is, that each group has its relative strength or significance in consciousness, and, resulting from this, a certain degree of facility in associating itself with and passing over into! other groups. In many pathological states and in hypnosis, undue significance is given to one or more groups, resulting, in the first case, in fixed ideas or insane delusions, and, in the latter case, a narrowed consciousness and cramped attention which gives to the group complete dominance for the time being. The excitation of such a group is all that can be meant by suggestion in hypnosis.

What are we to conclude then in regard to suggestibility? (1) That no fact is included in the term of such unusual significance that it must lead to a revision of the ordinary wellgrounded psychological views. This is the mistake of most theorists along this line. (2) As the term has hitherto been employed, it applies to the excitation of a part of consciousness. (3) That there is no difference in kind between suggestibility in normal and in hypnotic states. There is the same process of sensory excitation and the same supplementation through the association of ideas. The question why consciousness is narrowed in such a way as to give dominance to a particular group is the problem for the general theory of hypnotism. This narrowing of consciousness, however, has some very important effects upon the degree of suggestibility, which should be mentioned. (1) As was stated above, suggestion is the excitation of a part of consciousness. The general rule may be stated that in proportion as consciousness becomes narrowed down to some particular group, the excitability of this group, and so suggestibility, increases. (2) Another general rule is that in proportion as the excitability of any particular group increases, the excitability of other and especially opposing groups decreases. This may be seen in the anaesthesia and catalepsy of hypnosis. (3) The attitude of the attention in

expectation is very imperfectly understood, but, whatever it may be, it is closely related to the two above mentioned facts, and plays an important part in suggestibility. One of the peculiar aspects of the hypnotic condition is a certain readiness in the receptivity of any stimulus, and the apparent indifference in the effect as to what particular group shall become dominant. (4) Another important question in hypnotic suggestibility is that of rapport. From the standpoint of psychology all we can say is, that the ilea of the hypnotizer is, from the beginning of the condition, the dominant element in the consciousness of the subject, and forms the starting point from which the excitation of other groups goes out.

#### DOUBLE AND MULTIPLE IDENTITY.

#### By ALICE HAMLIN HINMAN, A. B., Ph. D., University of Nebraska.

One of the most striking and familiar facts in ordinary hypnosis is the complete and dramatic change of personality on the part of the hypnotized subject at the command of the hypnotizer. Even an ignorant person and one who in ordinary circumstances possesses no dramatic ability whatever, may impersonate any character suggested by the hypnotizer, with great vividness and Under the influence of suggestion he apparently loses freedom. all sense of his own identity, and speaks, moves, and acts in every way like the lovesick swain or anxious parent whom he believes himself to be. In the minds of many who know nothing of the nature of hypnosis, such changes of identity arouse a superstitious fear of hypnotism. It becomes a source of fascination or of horror to them in very much the way in which witchcraft appealed to the imagination of the world three centuries ago. It is not the purpose of the present brief chapter to describe any special cases of multiple identity in hypnosis. Instances will doubtless be given in other chapters of this work, and the classic cases of Ansel Bourne, Leonie, Lucie, and Felida X, are recorded in every popular work on hypnotism. Our object is rather to inquire into the nature of these instances, and to present in brief the explanation offered by the sanest psychology of the day.

To the psychologist the explanation of the strange phenomena of hypnotism, and of every abnormal form of mental life, is to be found in the study of the ordinary workings of the normal mind. Professor Ladd of Yale has expressed our standpoint in saying, "As in the case of the insane, so in the case of the hypnotic. Between the wildest vagaries of a pathological sort and the most regular operations of the sanest mind, it is possible to interpolate an innumerable series of gradations so as to shade up or shade down from one into the other."\* To understand, then, the personalities of the hypnotic subject we must consider in the first place the

\*Ladd, Philosophy of Mind, p. 167.

nature of our ordinary consciousness of self, and then notice the series of variations in our own identity, leading up to the phases observed in hypnosis.

An early idea of self is evidently an idea of our bodily selves. We have focused attention upon certain "warm and intimate" sensations, and have distinguished this group from all others. The entire living body with its keen pleasures and pains, its impulses and desires, its mobility, its vague masses of inner organic sensations, becomes our self, separate and distinct from all objective experience. With growing intelligence we include in our knowledge of self the memory of a vast number of past events and the thought of many circumstances bearing no immediate reference to our bodies. Our self is now to some extent a descriptive history of our past and present. The idea becomes a great organic system of ideas, and the more widely we extend its content, the more abstract becomes the idea which serves as a nucleus to the whole system. In just the same way that we ascribe certain groups of sensations to "things" that exist and possess these properties, so our very complex group of subjective experiences is inevitably referred to a self that really exists and to which, through memory and self-consciousness, they all belong. As intelligence becomes more and more reflective it grasps more fully the idea of a permanent self as the center, the owner, and in a sense the creator of all that belongs to one individual consciousness.

We need not enlarge this account of the knowledge of self since it is one already generally well known. Let us pass on to notice the striking variations in the idea that are to be found in ordinary experience. Among the lesser modifications are those observed after a sudden and overwhelming change in circumstances. The instance most often cited is the one so humorously presented by Shakespeare in "The Taming of the Shrew." Christopher Sly, the tinker, is not at all sure that it is himself whom he finds attired in the rich robes of a noble. "I smell sweet savors and I feel soft things. Upon my life, I am a lord indeed." How often we hear the phrases, "He was not himself at the time," "He is a different man" or "I hardly knew myself." Sudden illness, the loss of family or property or position, or the entrance into any entirely new scenes and conditions of life will call forth such comments. But in all these alterations there is no real loss of personal identity. In spite of the startling changes, one clings perhaps all the more intensely, to memory and consciousness of the same self.

We must look further for instances in normal life of at least a temporary loss of personal identity. Such instances are common enough. We find them in the play of children, the actor, the musician, the author, the prophet and the priest. The little girl playing with her doll is first the mother and then the child. The small boy playing school is first the stern teacher and then the meek pupil. The great actor, too, at least in some stage of his study of a part, finds himself transferred completely to the character he is presenting. Many authors, for example, Thackeray, Dickens and Balzac, at times temporarily merge their own personality in that of some vivid character of their own creation.

A yet more striking class of instances of a temporary loss of personal identity, and one common to most men, is found in dream life. Here almost everyone occasionally becomes someone And it often happens that the "I" of a single, clear and else. coherent dream is one person early in the dream and another person later in the same dream. Identity seems to shift as the center of interest shifts from one character to another. Those who have paid any attention to their own dreams are often astonished by the ways in which they surpass or contradict their own characters in their dreams. A young student of French noticed with surprise that when he dreamed of speaking French in his own person he spoke no more correctly than in his waking hours; but when he dreamed that he had become a Frenchman his accent and language were far superior to those of his waking self. Upon rousing from his dream he jotted down certain phrases that had fallen from the lips of his French self, and found that they were good idiomatic French expressions, although hitherto no part of his own vocabulary. The thoroughly upright man dreams of being a cheat, a thief and a murderer. The fastidious, refined woman dreams of being a swearing seaman, glibly using the coarsest profanity, and so on.

#### DOUBLE AND MULTIPLE IDENTITY.

But the deepest and most fundamental line of cleavage in consciousness is its division into the sub-conscious and the cléarly known self. Psychology recognizes to-day that no consciousness is single; in its very nature consciousness is double or multiple. The self we all think of when the word is first used is but a small part of ourselves. We may compare it with the spot of clearest vision in our field of sight. Just as the eye can focus on only one small spot at a time, so the recognized self is but a small spot in general consciousness. And as the unnoticed background has an immense influence on the objects clearly perceived, so, too. the unnoticed background of consciousness has an immeasureable effect on that which is clearly perceived. As life develops, more and more of the experiences that at first claimed attention, pass over into the unnoticed background. In this unregarded field lies what we call the unobserved tendencies or trends of life, the essence of temperament and tact, blind impulse and instinct, mechanical and automatic acts of every kind.

It would be hard to overestimate the scope and force of this under-consciousness. To take only one or two typical illustrations: Notice that a musician has only to see in what scale a composition is written to let his fingers fall without any further attention upon the notes of that scale. Anyone who speaks in a foreign language, after once having started a sentence in that tongue, pays no further attention, as a rule, to the need for avoiding words in his native tongue. He is in touch with a foreign background and that supplies him with words and phrases of its own order. The greater part, and sometimes the very best of life's work is accomplished through the agency of this background of consciousness.

To what we have figuratively called a "background," psychologists have assigned many names, referring to it as a psychical automatism, a sub-conscious self, a subliminal consciousness, a subjective mind, etc. The last term seems to the writer to be a very objectionable one: for the sub-conscious activity is an integral characteristic of every mind and of all mental action in varying degree, and it is absurd to refer to this phase as if it were a separate mind.

It is true, however, that at times the attentive, reflective, clearly identified self seems to slip away from the scene of action, leaving open space for the sub-conscious activity. Another identity than the one we recognize as our own, seems to take possession of the scene. The artist, seer, or prophet is caught up into a state of ecstacy in which another than himself seems to speak and work through him. The most thorough systems of modern psychology, from Wundt down, emphasize these facts as part of our normal experience and point out, to use Professor Ladd's words, that "it may well be that so-called 'single' consciousness, in its most normal form, always conceals and indeed, as it were, is made up of double (and even multiple) consciousness, in some valid meaning of those words. The explanation of double consciousness, when the facts are in and the explanation is made, will be found in the extension rather than the reversal of principles, already known to apply to the normal activity of body and mind."\*

Now, if the psychologists are right who maintain such a view of ordinary consciousness, how do they account for the fact that mankind have generally ignored their multifold identities under common circumstances, and yet have recognized the multiplicity at once in the insane and the hypnotized? The full answer to this question would be a long story, and we can only briefly indicate its trend. The whole difference turns upon the continuance of memory and the return of self-consciousness.

Notice, first, the importance of a continuance of memory. While we dream we may not remember our waking selves, but when we wake memory holds over and we look back upon ourselves both in the dream and before the dream. Paul is not classed among the insane because he speaks of being "caught up into the third heaven," whether in the body or out of the body. I know not. Upon his return to his common self, memory bridged over the sudden change.

But the objection will at once be raised that sometimes in insanity, and often in hypnosis, an accurate memory of one's past is retained, and yet there is no recognition of the old identity. Now, there are two causes which prevent the retarn of conscious-

\*Ladd, Philosophy of Mind, p. 168.

ness in these instances, one mainly physiological, the other psychological. When the organic sensations are suddenly and violently changed it is difficult for even the strongest mind to retain its equilibrium. We pointed out early in this chapter that sensations from within the body form the early idea of self, and they always retain an important place. If serious disturbances continue, the mind almost surely yields to the strain, and temporary or permanent insanity sets in. The more purely psychological cause for the loss of identity without the loss of memory is especially operative in hypnosis. A vivid suggestion is received either directly from the command of the hypnotizer or indirectly from the subject's preconception that the hypnotizer expects such a change. The strongly-suggested idea is the nucleus for a new system of ideas which displaces or usurps the central group of the normal system. Of course, both in hypnosis and in insanity, physiological disturbances and suggested ideas may work together, each reinforcing the other's influence.

The foregoing discussion of the nature of our consciousness of personal identity, and of the approaches in ordinary experience to the peculiar phases of hypnotism may seem to some an attempt to explain away the wonderful changes observed. Exactly the reverse is true. The conservative standpoint is often misrepresented as one of hidebound prejudice and of obstinate blindness to the marvels of abnormal experience, whereas it is really seeking all the time to open the eyes of the world to the greater marvels inherent in the common everyday consciousness for which the world has small respect or interest. The most impressive teaching of a thoughtful psychology is its insight into the hitherto undreamed of depths of consciousness, out of which arises the commonly recognized self.

In the attempt to suggest a cause or origin for the variations in identity, many theories have been set afloat that cover only a part of the facts. The theories of the automatic functioning of the lower brain centers or of "unconscious cerebration" ignore the fact that we have entirely satisfactory evidence of the presence of consciousness. When, again, the phenomena are all classed as instances of morbid disassociation, the theory fails to do justice to the high degree of constructive work sometimes accomplished by the secondary consciousness. A wider and more inclusive study of the subject has been one of the results of the London Society for Psychical Research, and we bring our own discussion to a close with a very brief reference to the writings of two members of that society, Mr. F. W. H. Meyers and Mr. Podmore.

In his paper on the Subliminal Consciousness, Mr. Meyers has given us his mass of evidence and his own conclusions. His explanatory theories are rather imaginative, and go beyond his facts into mere conjecture, yet they command attention as the speculations of one who has made an elaborate investigation of the facts. Mr. Myers writes, "I accord no primary to my ordinary waking self except that, among many potential selves, this one has shown itself fitted to meet the needs of common life. There is in each of us an abiding psychical entity far more extensive than he knows. This subliminal consciousness may embrace a far wder range of activity, extending on the one side to psychological processes which have long dropped out of human knowledge, on the other to certain supernormal faculties (telepathy, clairvoyance, prevision), of which only stray hints have reached us, in our present stage of evolution."\*

While Mr. Meyers evidently believes that the human mind can transcend time and space and the laws of the physical world. Mr. Podmore is more conservative. In his studies in Psychical. Research, p. 413, seq. he writes, "It is held by some that in the hypnotic state we have a prophecy of the future endowments of the race. But it seems more probable that these abnormal conditions are not a prophecy but a survival. In the hurry and stress of living, it may be suggested, we have had to drop articles of luxury, as the keen scent, the telescopic eye, the unerring sense of direction, which served primeval man. For the pressure upon the area of our working consciousness is great and its capacity limited. Year by year ideas and sensations once vivid grow fainter, and finally pass unregarded. When the nature of the process and the results which attend it are more clearly recognized, we may find it possible to recover something of these waste products and thus enrich our workaday selves. But as yet we

\*Proc. S. P. R. vol. VII. p. 301, seq.

seem to have found in the subliminal consciousness no certain indication of any knowledge or faculties which have not at sometime played a part in the primary field. We come across memories of childhood, and many old forgotten things; we discover what seem to be traces of long lost but serviceable faculties, telepathy, sense of time, of direction, of right,—we acquire partial control over bodily functions—digestion, circulation, and the like,—which civilized man has learned to acquiesce in as beyond his guidance. But in all this we only resume possession of our own. And we have as yet, I submit, no sufficient evidence of anything beyond that."

Every student of the depths of self-consciousness finds that the deeper study reveals the superficial and ephemeral character of the view of personal identity with which we start out. More and more clearly we perceive within ourselves the double and multiple selves, potential in the wider scope of mental life. And yet, in our final analysis, we must find that the multiple identities have more to unite than to separate them. Wherever memory and self consciousness hold over or revive, we shall have one self and not many. We see the possibilities open to an intelligence with memory and perception far superior to our own. Such a mind would take up all that seems to us to belong to other personalities into a larger, richer single identity, as clearly one as the crude idea with which we started on our research, but vastly more complex and inclusive.

#### EXTRA PERSONAL CONTROL IN HYPNOSIS.

#### By POWELL DENTON REYNOLDS, D. D., West Va. University.

Psychosis is mental activity. 'Any state of consciousness or mental process is a psychosis. Strictly, the activity is the psychosis. The term is sometimes used to designate the product of the activity.

Hypnotic, or extra-personal, control is the control of the psychoses of the hypnotized subject by the hypnotist. The hypnotist determines the mental activity of the subject, and so determines his states of consciousness and mental processes.

Unless the psychoses of the subject are determined by the hypnotist, there is no true hypnotic control. Reflex action is action without psychosis. That is, it is not originated and directed by psychosis. The actor may be conscious of the action, and even attentive to it. He may even wish and strive to inhibit it. Still it is not intentional—personally controlled—and is, therefore, strictly reflex. The hypnotist may originate and direct the action by applying the necessary stimulus. In this way he controls the action, but the control is not hypnotic control, because it is not accomplished by controlling the psychosis of the subject.

What is the explanation of hypnotic, or extra-personal, control? How does the hypnotist determine the psychosis of the hypnotized subject? The aim of this discussion is to contribute something towards an answer to this question.

Neurosis is nervous excitation or activity produced by stimulus. Normal, or ordinary, neuroses consist of, are produced by, stimulation, excitation, activity, of sensory terminals, or end organs; of conducting fibres, both afferent and efferent, and of nerve centers.

Sub-cerebral neurosis is without psychosis. Cerebral, or cortical, neurosis produces psychosis, or accompanies psychosis, or is produced by psychosis. Investigation and experiment have established the fact, apparently, that there is no psychosis without neurosis—without cerebral neurosis. Every neurosis produces, or tends to produce—in a normal, complete nervous system, will produce—its appropriate psychosis. Conversely, it is almost certain that every psychosis produces, or tends to produce, further neurosis. There is, or is a tendency to, a cycle of neurosis and psychosis, accomplished in a complete nervous system acting normally.

If the relation of neurosis to psychosis, and vice versa, has been correctly stated, the hypnotist, in order to control the psychoses of the subject, must control the neuroses of the subject. He must control the neuroses that control the psychoses determined. At least, he must control that neurosis that controls the primary, or initial, psychosis that will produce other psychoses normally by producing the normal, or necessary neurosis. If the hypnotist can control the neuroses of the subject—can produce the appropriate neuroses—he can control the psychoses—can control them to the exact extent that he can control is by control of neurosis. It is by control of the neurosis that produce the psychoses. Otherwise the result is reflex only, and the control is not hypnotic.

Hypnosis is a state or condition of the nervous system, or of some part of it, which, while it continues, destroys or suspends self-control of the psychoses—and, consequently, of the voluntary action—of the subject, and subjects him to extra-personal control. In hypnosis the neuroses of the subject, or such of them as produce, directly or indirectly, the determined psychoses, are controlled by the hypnotist.

What the nervous state called hypnosis is—how the methods employed by the hypnotist to produce it operate physiologically to produce it—to what extent the nervous system is, or may be, brought into this state—the special and general effects physiologically of hypnosis, etc., etc.—cannot be discussed here. The matter for consideration is the control exercised by the hypnotist over the psychoses of the subject.

The hypnotist induces hypnosis by controlling or directing the attention of the subject. The control and direction of the attention seems to be wholly surrendered to the hypnotist. If the attention is wholly surrendered, the hypnosis is complete. Or, if the hypnosis is complete, the attention is wholly surrendered. The methods and mental processes used by the hypnotist, in inducing hypnosis, are to secure this concentration and surrender of attention.

This "surrender" of attention-control of the attention of the subject by the hypnotist-is the secret of hypnotic control, is the essence of it. It is the key to the explanation of hypnotic control. All extra-personal control of psychosis in hypnosis comes from the control of neurosis made possible by this control of attention. In fact, the attention of the subject is the psychosis controlled by the hypnotist as a hypnotist. All the other neuroses, and, so, psychoses, that occur in hypnosis are normally produced-produced as the subject produces them by self-control. or as they are determined for him out of hypnosis. If there are variations from the normal, or usual, action of the nervous system, they are due to special, or unusual, conditions that result from the unusual nervous condition called hypnosis, or from the effects of the methods used to induce hypnosis. The concentration or "surrender" of attention is the neural, or, what is the same thing, the psychic, condition of susceptibility to suggestion. by which the hypnotist controls as a hypnotist. The truth of this will appear more fully farther along.

Hypnotic, or extra-personal control extends to volition, or voluntary action, feeling, sensation and perception. The hypnotized subject wills to do what the hypnotist commands, or suggests that he do. He can do what the hypnotist suggests that he can do. He cannot do what the hypnotist suggests he cannot do. He feels as the hypnotist suggests that he feels. He perceives what the hypnotist suggests he perceives. In the case of control of action, the hypnotist must control the neuroses that control the nerve centers of action. In the case of the control of feeling, he must control the neurosis that produces the feeling. In the case of control of sensation and perception, he must control the neuroses that determine sensation and perception. If it is true that there is no psychosis without neurosis, and that every psychosis has its appropriate neurosis, the hypnotist can control volition. feeling, sensation and perception only by controlling the neuroses that produce these psychoses.

#### EXTRA PERSONAL CONTROL IN HYPNOSIS.

In all these—action, or, more properly, volition that determines action,—feeling, sensation and perception,—the control exercised by the hypnotist is through the imagination of the subject—through ideas. The hypnotist controls these psychoses of the subject because he determines what ideas the subject shall have. He determines what ideas the subject shall have through control of the attention of the subject. He controls the attention of the subject, and the psychoses occur precisely as if his attention were personally controlled, or were controlled, by circumstances independent of the will or action of the hypnotist.

True hypnotic control is primarily the control of the ideas, or imagination, of the hypnotized subject, through control of his attention. The psychoses of volition, feeling, sensation and perception are controlled in hypnosis by determining the imagination of the hypnotized subject. This is the thesis to be established by this discussion.

Whether or not neurosis produces psychosis depends upon attention. Neurosis may be complete-neural excitation, action and reaction may go on-without consciousness, without real mental activity-without true psychosis. This is because the to the excitation or reaction of the center, or centers, whose excitation or reaction produces consciousness. That there is such a center, or are such centers, and that activity of this center or of these centers, is necessary to-takes place in-consciousness. will not be disputed by those who hold to the necessary relation between neurosis and psychosis. Or, if it is insisted that the activity of cortical centers always and necessarily, of itself, produces consciousness, it is still true that psychosis depends upon attention. It is true, also, that the degree or intensity of consciousness and, what is the same thing, the degree or intensity of the psychosis is in proportion, normally, to the degree or intensity of attention, within limits. Illustrations of this are too numerous and too obvious to need citation.

From the relation of attention to consciousness—to psychosis—it follows that control of attention gives control of consciousness—of psychosis. That is, control of attention determines whether or not neurosis shall produce psychosis or what neurosis shall produce psychosis. That is—and this is what is pertinent in this discussion—control of attention determines the ideas, the imagination, of the person whose attention is controlled. The hypnotist controls the attention of the hypnotized subject, and so controls his psychoses to the extent of determining his imagination, his ideas. In this there is nothing abnormal or unusual, except the abnormal or unusual control of attention, or more correctly, perhaps, the abnormal or unusual means employed by the hypnotist to get control of the attention.

It remains to be shown that the control of the imagination or ideas of the hypnotized subject by the hypnotist is competent to give him the control which he exercises over the action, feelings, sensations and perceptions of the subject.

True hypnotic control is the control of voluntary action. This is only apparently paradoxical or contradictory, as will appear presently, when the real distinction between reflex and voluntary action is considered.

Pure reflex action is without psychosis. It is without consciousness, and so is necessarily without personal control. It may be said to be under sub-personal control. It rises from and depends upon the excitation and reaction of the appropriate nerve centers, as in voluntary action. But the actor has nothing to do consciously with applying the stimulus or with directing or controlling the reaction. He, therefore, does not direct or control the resulting action. The action may be controlled by another by use of the appropriate stimulus, as a piece of machinery is worked by the appropriate manipulation.

Hypnosis may go to the extent of rendering all action of the subject reflex. The hypnotist, in a sense, controls the action of the subject. But the control is not true hypnotic control, because it is not exercised through ideas, through psychosis at all. It is control of the same kind as that exercised by an experimenter when, by applying stimulus to the sensory terminals of the nervous system of a frog deprived of its cerebrum, he determines the action of the frog.

Action may be with consciousness and much attention and still be reflex, or without personal control. The actor loes not control the stimulation, or direct or inhibit the reaction, although he is fully conscious of, and intensely attentive to, the stimulation, reaction and resulting action.

Hypnosis may go to this extent. The subject is conscious and attentive but passive. The hypnotist controls the action of the subject in the same way in which he controls it in the absence of consciousness—of psychosis. But such control is not hypnotic control. It is not exercised through control of the ideas, or imagination, of the subject.

Habitual action is action originally personally controlled, but has become reflex, or semi-reflex. Originally it was performed from purpose, through the direction and control of the excitation and reaction of appropriate centers. It is semi-reflex in the minimum of attention to the idea which arouses the neurosis that leads to the excitation and activity of the nerve centers producing the action. The connection, or succession, so to speak, of neuroses has been so well established by exercise that, the initial impulse, however slight and brief, being given, the neuroses follow without control—even without attention. There is even a tendency to follow in spite of control. In fact, they often do follow in spite of efforts to control. The acquired facility is so great that it overcomes ordinary inhibition—counteracting neuroses.

In hypnosis the hypnotist controls action of the subject which is habitual, by determining the initial neurosis. This is determined by determining the idea that arouses the initial neurosis. So far as the hypnotist controls the idea that arouses the initial neurosis the control is true hypnotic control—is exercised by determining to this extent the psychosis of the subject.

Impulsive action is with consciousness. It arises from idea. So far as it comes without idea, it is reflex. The idea arousing it is original, or spontaneous. That is, it depends upon the nature of the organism—upon the neuroses that spontaneously or naturally follow stimulation and the psychoses that spontaneously or naturally follow the neuroses, and is without reflection—without the influence of other ideas that might rise upon reflection. The idea is so intense—excites neurosis so prompt and intense that the connected neuroses follow so promptly and vigorously as to leave no time or energy for inhibiting ideas or counteracting neuroses.

In hypnosis the hypnotist controls the impulsive action of the subject by determining the initial neurosis. This is determined by determining the idea that excites the initial neurosis. The action will follow according to the temperament and habits of the subject. The control is hypnotic control so far as it governs the idea that arouses the initial neurosis.

Voluntary action is personally controlled action. It is intentional, or willed, action. This distinguishes action that is truly actively—voluntary from that which is sometimes called voluntary but is only passively voluntary—that is, is permitted, not willed or controlled by the actor.

Voluntary action is determined by idea. The purpose to be accomplished is an idea to be realized, and is the idea that determines the action. According to the idea, the actor governs the neuroses that produce the intended action, by stimulation, direction and inhibition—by exciting the appropriate neuroses.

In hypnosis the hypnotist controls the voluntary action of the subject by determining his idea—his purpose. When he determines this idea, he "touches the button," so to speak, and the actor does the rest, with the usual machinery and in the usual way, as if he had himself determined the idea, or initial neurosis.

Voluntary action includes voluntary psychosis—personally determined or controlled states of consciousness and mental processes. To control psychoses, the neuroses producing these psychoses must be controlled. But there must be an initial, or original, neurosis back of, or under, or preceding, all, such as cannot be controlled, or personally determined. There is no neurosis more original or primary with which to control it. Without such primary neurosis there is no starting point. This original neurosis is according to the nature of the organism—that is, it is determined by the stimulus afforded by the environment. It is, or furnishes, the psychosis constituting the idea that is the controlling factor in all voluntary action and voluntary psychosis. This idea being produced, the rest follows. If the idea is sufficiently "strong" it will control the neuroses. It will be "strong" in proportion to its exclusiveness, and this will be according to the degree of attention it obtains or creates. If it is wholly exclusive—monopolizes the attention—it will control all neuroses absolutely that are, strictly speaking, under control at all—those directly producing psychoses and those that indirectly produce action through psychosis.

In hypnosis the hypnotist has control of the ideas of the subject. The characteristic of hypnosis is that it gives the hypnotist this control, and so gives him control of the psychoses, and so of the voluntary actions, of the subject. Hypnosis gives the hypnotist control of the attention of the subject. Control of atten tion will give control of ideas, with all of the consequences of such domination, as well out of hypnosis as in it, or with it. In hypnotic control, the law of psychosis and action operates as usual. The one characteristic condition is not unnatural but simply unusual.

The fundamental principle of hypnotic, or extra-personal, control, is that attention may be so concentrated that stimulus does not produce neurosis, or neurosis does not produce psychosis. Either cerebral centers are so preoccupied, so to speak, that stimulus cannot find entrance, or energy is so monopolized that neurosis does not occur. Instances, or proofs, of the fact that attention determines psychosis in this way are numerous, but cannot be cited here.

Revery, abstraction, dreaming, somnambulism, certain species of insanity, are all to some extent explained by the law of control of psychosis and action through idea, through attention, and illustrate and confirm the proposition that hypnotic control is control of psychosis through idea, through attention.

The control of the sensations of the subject by the hypnotist in hypnosis, is, as in the case of control of action, through ideas or the imagination. Psychosis produces or modifies neurosis. Ideas, or imagination, determine, to some extent at least, the psychic result of stimulus upon sensory terminals, or end organs. This must be through the effect of the psychosis upon the sensory terminals, or end organs, or upon the neurosis of the cerebral center reacting upon the excitation of sensory terminal, or end organ. Ideas excite hunger, thirst, passion, etc., which shows that psychosis does produce, or affect, neurosis, and is sufficient to account for the arrested or perverted sensations of the subject through the suggestion of the hypnotist.

Perception depends upon—is organized from—sensation. In hypnosis perception is determined by sensation in the normal way. Sensations are interpreted in the usual way, although they have been "perverted" by the idea or imagination. The hypnotist controls the perceptions of the subject by determining the ideas that control his sensations.

Emotions normally arise from ideas. This is true, whether bodily action, or what is the same thing, neurosis, produces the feeling, or the feeling produces the neurosis. In hypnosis the hypnotist controls the emotions of the subject by determining the ideas that excite these emotions. He determines these ideas by determining the perceptions, as explained above, or by suggesting the idea of these perceptions. Indeed, ordinarily, one controls the emotions of another—arouses them, intensifies them, allays them—by influencing or controlling the ideas of the other, either by objects or other ideas. Really, every case of "surrender" of attention sufficient to secure passive reception of ideas is incipient or partial hypnosis. Control of the emotions, and consequent control of the actions, of the subject, is the easiest, most natural work of the hypnotist.

Pain, as is well known, may be induced in organs and tissues by imagination. The principle here is the same. The idea, or psychosis, affects the condition of the tissues through the neurosis excited. The sensation corresponds to the neurosis, and the pain is a real pain, arising from an actual physical condition. This physical condition may be prolonged or repeated, till it becomes permanent, or works the same damage to the tissues that the normal cause of such pain would. Disease, thus, may arise from imagination. Conversely, imagination may prevent or cure disease by determining neurosis and consequent condition of tissues. Susceptibility to, and immunity from, disease may to some extent be produced in the same way. The anaesthetic effects of hypnosis and its therapeutic value may thus be accounted for. So may "faith cure," and such things.

#### CURATIVE HYPNOTISM.

#### By ARTHUR MAC DONALD, Bureau of Education, Washington, D. C.

#### (From the Chautauquan, Sept., 1899.)

In this study we wish to deal with the curative side of hypnotism and more especially with recent experiments and views of French specialists.

If waking is the true expression of the active and free mind, sleep on the contrary is the expression to a variable degree of its non-activity. The complete isolation in which sleep places the sleeper in removing from him all cause of distraction, and the auto-suggestion to put his mind and organism in repose produce a reparative and beneficial effect, which gradually by the distribution of the nervous forces restore the equilibrium disturbed by work while waking. Hypnotic sleep is produced by the same concentration of mind as ordinary sleep, but instead of being due, as in the latter case, to self-suggestion, it is effected by suggestion from without.

Subjects plunged artificially into the most profound sleep, in place of a general and absolute isolation of the senses, may retain a slight connection of thought and sensation with the hypnotist alone. This is because they fall asleep thinking of him, and their active thought continues automatically from them to him. The proof of this is that the subject only performs acts suggested by the hypnotist. If prolonged natural sleep, effected by a habitual and unconscious suggestion, restores poise and nervous energy, all the more has artificial sleep, properly directed, like results, especially if prolonged for some time. Simple affirmations to the waking subject sometimes have the power to produce curative effects, and these affirmations may become much more efficacious if they are made during artificial sleep. In this case, the subject, isolated from the world and retaining but a greatly diminished sensibility, cannot be distracted by impressions previously felt. At the same time, his will has lost its initiative; he accepts and submits to what is imposed on his mind.

#### CUBATIVE HYPNOTISM.

Incitation, which is called suggestion, addressed to the mind of the sleeper whose inert nervous force is centered in the idea of sleep, must without resistance direct this force by turns to any part of the organism; from this results an action on the organs, in proportion to the amount of attention fixed on the idea of sleep. When a suggestion is made to cure the sleeping patient, deprived of initiative power, it causes either a depression or an excitation of an organ or a part of the nervous system; or the brain diminishes its active influence on the tissues according as the nervous force is accumulated in it; or, on the contrary, it augments this influence in the same proportion. The more emphasis there is centered on the idea of sleep, the greater become the curative effects obtained by suggestion; that is, the nearer we bring the subject to a state of profound somnambulism, the more susceptible we render him to a quick and complete cure.

Whatever method may be employed to obtain the cure of the sick submitted to suggestion, whether simple affirmations of suggestive force are made to them when awake, or whether favorable emotions are produced, we induce in the diseased organs effects either sedative or exciting according to the curative idea which we express. These actions could not be produced if the mental and physical faculties were not transformable, if the mind was not closely allied to the matter. Suggestion cannot cure all morbid affections, but it has at least, and especially in sleep, a beneficial influence over them, even those which are incurable.

With the aid of Professors Bernheim, Beaunis and Liegeios, Liebault was enabled to produce on a hysterical somnambulist, the apparitions of reddening spots on the skin, blisters and stigmata, by the single action of the idea they had suggested. On other subjects they obtained separately like results. If emotion is added to the power of suggestion to reinforce it, the results are still more decided. In two somnambulists they were able by simple suggestion to produce the slightest modifications in the skin. As a result of strong emotion added to suggestion they caused a redness in the form of a double cross to appear on the hand of one, and blisters of the epidermis on the hand of the other, which took several days entirely to pass away.

The suggestion during natural sleep must be made without the consent of the patient and not at his instigation. Suppose the consciousness of the sleeping subject to have been previously freed from all imaginative representation and a receptivity created similar to that of the ordinary hypnotic subject and conformable to the laws of the diminution of consciousness. The intervention itself must convey suggestions, distinctly articulated, in such a manner that there is synchronism between the emissions of the voice of the therapeutical psychologist and the respiratory movements of the subject. It would be well to suspend the intervention whenever the patient gave evidence of waking up, or his respiration quickened. The suggestion should never be brusque or sudden and the beginning and the end should be thus: the one gradually increased, the other progressively diminished, but both enunciated in a purposely drawling and monotonous voice. When the suggestion is finished the subject must continue to sleep, to dream of the things suggested, and not to waken until the hour determined upon.

Suggestion during natural sleep has right to a prominent place in the treatment of mental diseases. It also finds place in the diverse branches of the psycho-therapeutic domain. In this way we may learn more as to the psychology of sleep.

Mesmerism, hypnotism, and suggestion are perhaps effects of the same cause, but these effects are certainly produced under different conditions and according to different laws. Boirac agrees with Durand de Gros that suggestion and mesmerism are two distinct agents equally real and independent one from the other, which can counterfeit each other as they can also combine for the production of common effects. Thus there may be suggestion without mesmerism and mesmerism without suggestion. There may be a pseudo-mesmerism, which is but suggestion, and a pseudo-suggestion which is only mesmerism; finally, there may be inseparable mesmerism and suggestion; suggestive mesmerism or mesmeric suggestion. That suggestion exists without mesmerism is continually proved. "When," says Boirac, "without looking at or touching a subject, I say, 'Close your eyes, now you cannot open them,' and he vainly tries to do so; when I add, 'They will open of themselves when I have counted seven,' and the effect announced is produced, it is evident that mesmerism has nothing to do with the phenomena and they must be explained by suggestion alone."

But suggestion is not only independent of mesmerism, it can in many cases take its place or rather simulate all its effects. Here, for example, is an experiment often tried with certain subiects. I place my open hand above the hand of the subject; after several seconds he declares that he feels a very strong impression of heat; presently this heat becomes intolerable and he begs me to take my hand away. I reply that I do not hinder him from withdrawing his, but after unsuccessful effort he declares it impossible, and in fact the hand seems to be paralyzed. Nevertheless, it moves, rises or falls as soon as I make these movements, as if an invisible thread attached them. Would one not believe one's self to be in the presence of a veritable magnetic phenomenon? Yet there is nothing but the counterfeit of magnetism by suggestion. To convince one's self it is only necessary to change one condition of the experiment, that which permits operator and subject to suggest unknown to each other. Example: I say to the subject, "Close your eyes, now you cannot open them," and the subject makes vain efforts to unseal the lids. If then I begin by holding my hand above his to make it rise or fall, as he is not apprised by sight he feels nothing and does not move. My hand, a moment before so efficacious, no longer exercises any influence. But there are cases where, suggestion being eliminated, the magnetic effects remain just as distinct and complete, the subject being truly magnetic and pseudo-magnetic or purely suggestible.

It is evident that suggestible subjects with whom we can obtain the counterfeit of magnetism are more common than the true magnetic subjects, therefore, Bernheim and all pure suggestionists are of good faith when they claim to have victoriously refuted mesmerism.

Boirac cites two out of five cases of persons who possessed this remarkable element. The one, G. P., a young electrician; the other L. V., a student of law and philosophy. In experimenting with them, precaution was always taken to bandage the eyes; then they were told to tell as soon as they felt anything. Under these conditions the most varied and precise effects were obtained in all parts of the body, corresponding to positions and movements of the operator.

In the case of G. P., Boirac once placed mesmerism and suggestion in opposition; he says, "I told him I wished to experiment on the time necessary to produce the magnetic effect and asked him to tell me the instant he began to feel it. I said I would act exclusively by attraction in his right hand and asked him to cencentrate all his attention on that side. After this preparatory suggestion I said, 'I begin,' making a movement with the right hand, but without placing it opposite that of my subject. At the end of two or three minutes the subject, who was very attentive, murmured: 'It is strange, but I feel absolutely nothing,' then suddenly, 'Oh, I do feel something, only it is in the left hand and it is not an attraction but a tingling or pricking.'" Boirac had in fact silently placed his left hand (which always produced tingling, while the right produced attraction) close to the left knee of G. P.

This proves, in this case at least, that suggestion is powerless to simulate the effect of magnetism. When the subject is eminently suggestible, he may be advised to fix all his attention on one of his hands, being told that he will feel attracted by an irresistible force. As soon as the operator says, "I begin," the subject's hand rises, although the operator has made no movement. In this instance suggestion simulates magnetic action perfectly, but if at the same time without saying anything the operator places his right hand vis-a-vis to his other one it will be attracted, the two effects being simultaneous. Identical in appearance, they are in reality produced by two distinct causes; the one by magnetism, the other by suggestion.

Again, the subject being still in the charmed or credulous condition, it is suggested that, in order to act exclusively on one side of his body, the operator will render the other inert, and he ascertains that there is in fact paralysis and anaesthesia of that side. Here again the operator has obtained by suggestion a phenomenon of attraction in the members where sensibility and motility remained intact, but if he place his right hand near the knee or foot paralyzed by suggestion, he finds that in spite of the suggestion there are movements of attraction.

Thus not only can mesmerism produce its effects independent of suggestion, but it can in certain cases annul the effects of suggestion. There is consequently, besides pseudo-suggestive mesmerism, a pseudo-mesmeric suggestion. If it is scientifically proven that magnetism exists, it becomes necessary to have regard to its possible intervention in the *ensemble* of phenomena attributed to hypnotism and especially to suggestion.

The Nancy school said with justice that the old magnetizers did not cease to make suggestions unwittingly and suggestionists should expect to have it said that they have unwittingly employed magnetism. It is possible that the gaze, the contact, the passes, and the personality of the operator do not act on certain subjects except through purely suggestive influence, but it is also possible that with certain other subjects a magnetic influence is added to or takes the place of suggestion. As long as these two agents, each as real as the other, are always liable to enter into play and combine their actions, neither has a right *a priori* to the effects produced by one to the exclusion of the other.

It is then permissible to suppose that if certain operators, such as Liebault, Bernheim, succeed so easily in suggesting so large a number of persons, it is not alone because of their great skill, their long experience, and consummate knowledge of suggestive technic, but that they unwittingly possess an exceptional magnetic power. This, too, would explain the great inequality in the operations of different suggestionists.

## PSYCHOLOGIC BASIS OF HYPNOTISM—NON-VOLUNTARY AND VOLUNTARY POWERS.

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In order to apprehend clearly the nature of hypnosis it is essential that we study the salient facts of the mental life, which lie at the foundation. We must find the data or principles, by which we distinguish our own self from what is not the self.

I. Discrimination of the Self and the World.

Evidently the primal characteristic of genuine knowledge is the ability to separate the total field of intelligence into two components, our own personality and its environment. Such discrimination, when defective, may be a peculiarity of accredited science as well as of the hypnotic state.

In setting off the environment from our own personal self we need to distinguish at once, the without and within (the external and internal) of our thinking; for what we commonly term the external world may be largely one's own internal, fanciful construction, and here even science at its best may be in need of new corrections.

Things as they exist independently of our fancy or of our thinking, we call objective. They are the actual existences in the external world. From such real objects we must distinguish the creations of our own minds. The latter are subject, of course, to the laws of our mental life, having reality only as mental phenomena and are accordingly called subjective. One of the earliest indications of mental aberration is an incompetency to differentiate the objective from the subjective.

In keeping the self distinct from the not-self, we encounter the further fact that the processes of the mental life do not all rise into consciousness. Of a large portion of the mind's operations we are entirely unconscious. The sub-conscious springs of action are found to be better organized and more powerful than the conscious. Hypnotic control accordingly depends upon access to these sub-conscious agencies. The most radical and chief distinction, however, to be noted in separating our own personal self from our environment, is that between the voluntary and the non-voluntary, namely, between what originates from the self and what has its source in environing conditions. For hypnosis is preeminently a controlling of the voluntary or will power by means of that which in ordinary life is controlled by the will. In order to comprehend the modus operandi here we must observe carefully the

II. General Factors of the Mental Life.

The human mind is a wonderful aggregate of variety in unity, mental culture tending more and more to unify the processes. Our interpretation, however, as it approaches perfection, discloses to us increasingly the sum of our mental powers, as a triunity, a threefold capacity, namely, to know, to feel, and to will. While we may differentiate these processes for purposes of interpretation, they never actually exist independently. Our knowing or intellectual action never develops, even in specific instances, without some resulting feeling or emotion. This development of the emotive life may be simply sub-conscious; it is still none the less really existent, and tends constantly to become, indeed to some extent is, executive.

The distinctively executive function of the mind is what we term will, or volition; and this always operates in terms less or more of the feeling which has preceded it. Very careful analysis is required in order to assure ourselves that this feeling, which uniformly goes before, is not properly speaking, the cause of our choice. Should it be proved that the desire involved in each case has a causal relation to our choosing, then our choice is thereby determined and not free. Here clearly we reach the question, is man simply the creature of this emotive process, or may he make subordinate the executive possibilities of his desires? We are brought then to inquire as to the

III. Structure of the Will.

In the will we find a complete affiliation of the voluntary and non-voluntary processes.

1. Non-Voluntary Side.

#### NON-VOLUNTARY AND VOLUNTARY POWERS.

The non-voluntary activities, as a rule, do not rise into consciousness, that is, we become conscious of their existence subsequent to their development, and only after they have reached a certain intensity. For instance, our desire for food only becomes conscious when it has attained such power that we apprehend it as hunger. In what is named instinct man has a definite appetency which may, as in the case of the animal, secure its object without becoming part and parcel of the conscious life. Instinct involves an executive efficiency which must select in order to There accordingly exists a capacity to choose which is secure. entirely sub-conscious, a non-voluntary choosing. It is this instinctive agency which makes all feeling more or less executive. Before we are conscious of the chill of a falling temperature, the surface of the body has been adjusted to the changed This non-voluntary effort or tendency is sometimes conditions. called conation.

When we decide that all feeling is executive, we imply that whatever produces feeling develops innervation by exciting the motor nerve system which tends regularly to definitize itself, namely, to develop movement in some definite direction. Considering now that a man's desires are at the foundation of his preferences we conclude correctly that his preferences, as they rise into consciousness, involve selection and choice, which precede any conscious intention, and which are outcome of that organization of energies which is characteristic of our sub-conscious selves.

#### 2. Voluntary Side.

Man as a spiritual being possesses, and is conscious of, a causal capacity. We need not construe this originative or causal capacity as a beginning of action. The activities exist. The subconscious side being powerfully energetic, the free choice, as a rule, is merely the decision as to what energy is commissioned to take the field. Free choice is first self-command, and then selfdirection. Our definite preferences which spring from our subconscious organization may all be checked, or one may be set free and allowed to dominate. 3. The Motive.

The interplay of these antithetic sides of the will is by means of an intermediary or motive. Free choice is always in the light of intelligence. It is man's philosophy that enables the development of his freedom. His motives are the outcome of his logic. In other words man in his responsible capacity is scientific as well as philosophical. His motives are the ground of his choosing, still no more the cause of his choosing than is the ground upon which he walks, the cause of his walking. Inasmuch as a man's science (knowledge) is always limited to a greater or less extent, his motives, even were he perfectly rational, would never acquire an absolute validity or sovereignty. In a normal state of mind the motive (based as it is on our want) may alwavs be controlled. In dipsomania or kleptomania, the motive becomes regnant or sovereign; but this is an abnormal condition.

One motive may hold an indefinite number of others logically subordinated. This we call an intention. When intention has become a working process, we call it purpose. We shall understand better in what way motives break with our rationality and become regnant by considering our relation to

IV. Adaptation, Imitation and Ideo-Motor Action.

Man develops in terms of his environment. He is largely what his surroundings make him. His survival is a matter of adaptation. This law of his development appears not alone in his relation to general physical conditions, but especially as responsive to his personal or spiritual environings. The power of personalities is most imperious—often unlimitedly so. We surrender unconsciously. This applies eminently to effects visible and audible. We unconsciously memorize and repeat. Adaptation develops into imitation. Attractive personalities are sure to fashion our movements and tones, and give them fixity. "I am part of all that I have met." Our ideals thus become working forces in ourselves.

Reference has already been made to the executive tendency of feeling and to the fact that knowledge is uniformly the precursor of emotion. There is no better way to classify the emotions than

#### NON-VOLUNTABY AND VOLUNTABY POWERS.

under the characteristic of our intellection which is the occasion, not to say the cause. Here has arisen the technical expression, "ideo-motor action." The motor effect, the action which results from our ideas, may not appear externally, it nevertheless exists. Ideas that enrage us prepare us for battle. How far they become executive depends upon our will. Let the will with its balance wheel of rationality be in abeyance, and ideas (as we have seen in case of the motive) will dominate; it may be with the surpassing potency of our sub-conscious organism.

#### V. Hypnotic Control.

From these general facts we rightly judge that, in our normal life, attention is freely directed. Whatever overcomes this free balance of power impairs our self-consciousness, and widens ave--nues of approach in which dynamic instead of genuinely rational influences become regnant. Insurrection takes the place of unitary government; passion dethrones judgment. We should bear in mind, however, that this insurrection of the sub-conscious is thoroughly organized. There is, moreover, on account of the withdrawal of the efficiency (the soporific condition) of the upper centers of the brain, an abnormal concentration in the lower centers. Ideo-motor action may now be developed without the wonted restraints of deliberation. Instead of checking money out of the bank in the regular way the thief gains access to the safe. The self-moving energies which result from habituation are stored in the sub-conscious, and become available. The imitative instinct operates without restraint. Under the law of adaptation what is heard is believed-what is commanded becomes Ideo-Similarly what is seen (an act of a personality) is exemotor. cuted.

The hypnotic subject may be more or less conscious that he is performing, still he is unable to arouse his voluntary attention sufficiently to break with environing conditions. A command to immoral action may perhaps awaken, and cause a refusal. The extent to which the delusion, the converse may be carried may depend also upon physiological rather that psychological peculiarities of the individual. The same may be said of cataleptic effects produced in the muscular system. At the same time the power of the fancy or imagination, where the subjective replaces the objective, may be such as to checkmate the senses and produce radical modifications of the physique.

As the stores of the memory are sub-consciously adjusted the development of memorial images may be greater than is possible under the rule of the voluntary; effects may be produced which will assert themselves in the future. Ordinarily, however, when the memory, which has thus like a stream overflowed its banks, returns to its proper channel, there is no recollection of the fields that were flooded during the supremacy of the sub-conscious self.

Indeed, while we may scientifically differentiate the sub-conscious self from the normal conscious self, recognizing a double consciousness, there is no definite sub-conscious personality, the recognition of the self in hypnosis depending quite indefinitely upon the centralization of the moment.

# THE SCIENTIFIC VALUE OF HYPNOSIS

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The firm establishing of the facts covered by the term hypnosis, and the discovery of the methods duly under control for the manipulation of the state, make it possible to give a more or less judicial opinion as to the permanent value of it for psychological and medical sciences. In the opinion of the present writer, it is still too early to state conclusions as to its use for education, moral, social reform, etc. Since the facts upon which such conclusions should rest are still too meagre to afford more than conjectural opinions.

Admitting the truth of the "suggestion" theory of hypnosis. the theory originally suggested, but in an extreme form by the Nancy School and contributed to in its present form by men of all shades of opinion, we find that in psychology proper, certain principles are supported by it which are of very great generality and importance. The suggestion theory applies the term suggestion in a very wide sense. Any more or less abrupt injection of an idea or thought into the patient's mind in a way to hold his attention fixed and thus to narrow his consciousness by withdrawal from other ideas,-this is called suggestion. This is an old fact,-the possibility of doing this. But the possibility of controlling the patient's thought through a series of such suggestions and furthermore of controlling the effects of such suggestion upon his action both during and after his hypnosis,these are new and quite remarkable discoveries and from these certain consequences I shall state what I conceive to be the most important results to date of these investigations.

(1) They show that there is a quasi-mechanism of attention which can be made stationary or self-repeating. A single idea is made to hold the attention in a state of paralysis or static contraction and while the attention is thus held, locked as it were, a series of images or ideas is made to pass in succession through the focus of consciousness. Besides being theoretically of great importance, this gives us a method of experimenting with consciousness and finding out how ideas behave in the mind when the processes of selective and voluntary attention are held in abeyance.

(2) What is called the sensory-motor character of consciousness is demonstrated with great force in the hypnotic state. Ideas work themselves out in action, in a way quite remarkable for its precision and regularity. There are limits to this automatism of the hypnotized subject. Some suggestions of action are refused, probably as in many cases of criminal suggestion, because they come in conflict with the more deep-seated habits and disposition of the individual. But still the regular case is, that a suggestion to action is taken and carried out. This means a certain dynamic circuit through the brain which may work quite independently of the higher centers of attention and control,—a result which goes in well with the more remarkable results of so-called automatism to be mentioned below.

(3) With the preceding, go the physical effects which may 'be wrought by hypnotic suggestion. These effects are still obscure enough but they are real. They show an extraordinary responsiveness to the whole organism on the functional side, to the condition of the brain as this is set or manipulated through consciousness. There are no miracles here. No doubt, mental states are also, at the same time, brain states; and to say that physical generally are modified by suggestion is only to say that brain and nervous conditions dominate the entire organism. But never has this domination been so clearly shown nor its possibilities so opened up before. Here lies the reality of cures of functional troubles, rheumatism, nervousness of all sorts, etc., and in a measure, no doubt, also mental and moral complaints. It should be said, however, regarding these latter that they raise certain further questions. The ills of mind and morals involve the higher adjustments of life,---the adaptation to a social environment and the habits of conduct which result from long educative processes or from repeated indulgence and so have become, in a most intimate sense, elements of character. While suggestion, therefore, may work physical cures and in a measure effect the moral tendencies of the patient, the cure of these things would seem to involve just those higher efforts of attention and volition which hypnosis temporarily inhibits. Nevertheless, cases of personal indulgence, alcoholism, sexual excesses, etc., together with tendencies which spring from abnormal or fixed ideas, may well be found amenable to suggestive treatment. In fact, many cases of cures of both of these sorts are recorded, notably those of the second class. Ideas, which persist to torment, dominate and at times craze the patient, have been successfully removed by suggestion, and the nervous ills, such as hysteria, springing from them, cured.

(4) Light has been thrown on the operations of memory. Memory as a mental function has been definitely thrown on the side of automatism. It is found that the lower circuit, the form of consciousness which is not voluntary, has its own memory not only for one period of the hypnotic state, but for several successive periods which become united in memory across the intervening normal periods, leaving no breaks. This shows that when the ordinary supporting and controlling influence of the brain hemispheres, or those parts of them which selective attention involves, is removed, the lower centers may still suffice to support a consciousness having a fairly adequate memory of its own. Yet, and this is the more remarkable, when the normal relations are reestablished, the memory series thus formed does not become part of the higher memory of the voluntary consciousness, but all the events of the successive hypnotic state are forgotten.

(5) The last point leads us to the general question as to the nature of this lower consciousness which has its own memory, and performs so many acts of a seemingly purposeful sort. Here we reach the topic of most interest of all, in this obscure region. This lower consciousness has been naturally discovered, but investigated and much is now known about it. It goes by the name of the "unconscious" or the "secondary self." It seems that the materials of experience which come into consciousness are, in a measure, united and form a quasi-personality, as the facts of memory testify. It is a crude, low, sort of thing, this sub-consciousness, and most of its performances can be accounted for, in my opinion, by the principles of suggestion, habit and memory. It is demonstrated by what Janet has called psychological auto-

# THE SCIENTIFIC VALUE OF HYPNOSIS.

matism-i. e.,-the carrying out automatically of the normal results of association, habit, etc., in a very refined and personal-like way. It can count, can answer simple questions appropriately and do other things, which are ordinarily ascribed to intelligence. Yet, when we remember what animals of low, mental endowment are capable of doing under the simple training of rewards and punishment, with association of ideas, we become cautious in ascribing to the sub-conscious the attributes of a highly developed self. The theories, which find in the sub-conscious, the gifts of genius, the attributes of self-consciousness and the refined powers. of aesthetic and moral appreciation and production, are quite mistaken. For patients never do such things when they are only sub-conscious, the genius must have his higher centers and his mental powers of attention and will, in full operation in order to do his work and it is no argument for a sub-conscious genius to say that the genius may not be conscious of the methods of his thought. These are, in the mind of the writer, the main results so far established by hypnotic research. Certainly they are striking and valuable enough and it is only to bring them and the method into disrepute to make extravagant claims which go bevond the facts.

By PROFESSOR JAMES H. LEUBA, Ph. D., Bryn Mawr College.

We must take for granted that the reader of this paper is sequainted with the meaning of the words hypnotism and suggestion; that he knows the efficacy of ideas to be dependent upon the multitude of circumstances which determine the psychic attitude of the giver and of the receiver of the suggestion. We assume also that he knows that suggestion need not, to be effective, be practiced during hypnotic sleep. Hypnosis is a state of heightened suggestibility; outside of it suggestion may also have very powerful results.\* Between the lower degree of suggestibility,—the wide awake, all around alertness which characterizes some of our moods,—and somnambulism, there stretches a scale of psycho-physiological states along which we are all incessantly in motion.

Our task in the following paper is to point out, within the much too narrow space at our disposal, how far trance and suggestion may account for some of the phenomena of religious life. Our attention will be given entirely to the two most important manifestations of the Christian religion: Union with God and Conversion.

Union or Communion with God has all possible degrees, the highest of them is called mystical ecstasy. Mysticism has been, and still is, a very powerful factor in Christianity, for Union with God is the highest and best condition of the Christian, according to that large portion of the Church to which the name mystic may be applied if used in its largest and exclusively religious sense. +

What is this exalted state and how is it induced? We will let the great mystics themselves, many of whom were subtle intro-

<sup>\*</sup>Bee "Suggestive Therapeutics," by Bernheim and "Suggestion without Hypnotism," by Ch. Barrows, Proc. Sec. of Psy. Research, Part XXX., Vol. XII.

<sup>†</sup>Inges in his excellent book, defines religious mysticism as "The attempt to realize the presence of the living God in the soul and in nature."—Christian Mysticism, p. 5.

spectors, answer these questions for us. The Doctor Ecstaticus, John of Ruysbrock, is one of those who have carefully noted the several steps of the scala perfectionis or ladder of love. In "Ordo Spiritualium Nuptiarum" three stages are described. The third and highest he calls the Contemplative Life: "In this simple and intent contemplation, we are one life and one spirit with God. In this highest state the soul is united to God without means; it sinks into the vast darkness of the Godhead." Notice the words "v st darkness;" in another place he uses the expression "nudity of mind" to describe the condition of the soul in God.

The treatise of the delicately naive Franceis de Sales on "The Love of God," is an extensive and minute guide to ecstasy. As the mystics agree on the chief points upon which our inquiry bears, we may draw our information altogether from this book.\*

The journey of the soul begins with Meditation; from it, it passes to Contemplation which, becoming deeper and deeper, ascends through Amorous Contemplation, Rest of the Soul in the Beloved, Liquefaction of the Soul in God, Amorous Languor, the Sovereign Degree of Union in Suspension [of the senses and of the will] and finally reaches Ecstasy.<sup>†</sup> Let us take up successively the most important of these steps.

"Meditation considers in detail the objects proper to move us, but contemplation views the object of love in a lump, and as a whole. It takes place without effort and with pleasure. . . . and in this it differs from meditation which requires almost always an effort, work and speech." The author insists upon the *passivity* of the soul when once she has left meditation behind: "It is God who produces contemplation in ourselves according to His good pleasure, by the efficacy of His Holy Grace." A certain "sweet sweetness" diffuses itself imperceptibly in the heart. The soul is so "quietly attentive to the kindness of the beloved (bien aimé,) that she seems hardly attentive at all. This peace may go so far that all the powers of the soul stir no more, they are as asleen: the will itself does nothing more than receive the delight afforded by the presence of the beloved."

\*Traite' de l' Amour de Dicu, by St. Francois de Sales. See the heads of the Chapters of Books VI. and VII.

The psychologist will note that the contemplative state, as we find it described here, is, on the intellectual side, essentially one of the stages through which the hypnotist tries to lead his subject. He finds him actively thinking about whatever may be of interest to him at the time; he asks him to be seated, to remain peacefully quiet, to be passive, merely receptive. "Do not make any effort to think of anything in particular; let your mind become a blank, and you will presently pass into a quiet, pleasant sleep"—thus speaks the hypnotist. He may, as is well known, help the production of the necessary mental abeyance by other means, the fixation of a brilliant point, for instance, but, whatever the means, the result aimed at is to get the subject into a state of mental passivity and blankness such as St. Francois describes.

But contemplation is only one of the lower rounds of the ladder of love. The "Sacred Amorous Quietude" goes at times so far that although the soul feels the Savior speaking to her, she cannot speak to Him; "her heaviness is so great that she is like one who is beginning to fall asleep. But finally, she can sometimes neither hear nor speak to the beloved, she does not even feel any sign of his presence . . . It is then that the soul on awakening may rightly say: "truly have I slept with my God, held within the arms of His divine presence, and I knew it not." The trance has become complete, consciousness has altogether ceased. This sovereign state is, as far as intellect and will are concerned, identical with the non-religious trance. To give to it the large, vague sense of unequaled delight characteristic of the so-called liquefaction of the soul in God, the hypnotist need only awaken in his subject ideas pleasant in a high degree; let him be shown the beloved woman in a halo of dazzling light and he will sink in an abyss of "divine raptures." His trance will then be suffused with the glow of the tender passion and thus become equal to the Nirvana of the Christian mystic.

It has become customary to look askance at the great ecstasies of the old mystics; we have come to feel that there is nothing particularly sacred, or religiously exalted, about the God-Intoxication, even though it be brought about by the concentration of attention upon God viewed as a huge, nebulous blank, exuding the "honey of devotion." Most of us are ready to listen to science when it explains these obsolete, voluptuous, wonders s the natural effect,—normal or abnormal, but in any case, independent of any intervention on the part of the Divinity—of particular ideas and of a definite psychic attitude, an attitude sufficiently well described in the preceding pages.

We add without commentary a few lines concerning an ecstatic woman recently seen at La Salpétriére. Her trances are induced or accompanied by religious imagery, generally the vision of the Savior. During her ecstasies she stands up in the position of the crucifixion. She is then unconscious of what goes on about her, but on awakening she remembers in part her ecstasies and takes pleasure in describing them in writing. It would often be difficult to say whether one is reading St. Theresa or an inmate of La Salpétriére. "I felt an ineffable sweetness upon my lips; soon they became as glued together; my limbs grew numb, but it is a numbness full of delight, a 'volupté suave' which overspreads the whole body. I saw the Holy Sacrament in a blaze of light such as one never sees."

Her feet, even during her waking state, are contracted; she walks on tiptoe. Twice she presented stigmata. When she returns to her normal mental condition, she frequently complains of dryness of heart; the contractures disappear and her appetite increases considerably. The trances can easily be brought about by suggestion made during her waking state. She is a pious soul and looks upon hypnotism as the work of the devil. Pierre Janet has, therefore, taken the habit of using the idea of God to cause the trance; he asks her to pray God to grant her the favor of an ecstasy.\* So much for the complete degree of Union with God, as understood and practiced by F. de Sales, Meister Eckhard, Ruysbrock, St. Theresa, Miquel de Molinos, Loyola, Mme. Guyon and the host of their followers.

It need hardly be remarked that if the higher degrees of Divine Union may be produced by powers inherent in human nature, so much more is it possible for its less complete degrees, i. e., for the "spiritual" states familiar to most devout Christians under

<sup>\*</sup>See, for a preliminary report, Névroses Idées fixes, pp. 98 and 99.

the name "Communion with God." From the practical religious point of view, their superiority to the mystic trance depends upon the degree of fullness of the consciousness retained and the quality of its contents. The sense of fellowship with God is, to many, a priceless source of ennobling strength while mystic ecstasy is a debauching indulgence.

Christian Conversion is, according to theology, the process by which the "natural" man is "reborn" and becomes a "spiritual" and a "saved" man. It is, therefore, the most momentous work of the Grace of God in His Dealings with man, the pre-eminently excellent testimony of God's power and of His love for man, and it is also the most characteristic of all the manifestations of Christianity.

Conversion may take place more or less suddenly and tragically, or it may be a slow growth without any startling crisis. There are souls born, as it were, in the inheritance of the salvation obtained by their parents. Let it not be imagined that it is simply a change of conviction touching religious doctrines, a mere intellectual turn about. Were it nothing more than that, it would not deserve the place made for it in Christian theology; but true Christian conversion is much more. McClintock and Strong Biblical Cyclopedia defines it, "that change in the thoughts, desires, dispositions and life of a sinner which is brought about when the Holy Ghost enters the heart as the result of the exercise of a saving faith in the atonement by which the sinner is justified."

There are a number of historical conversions known to most people as St. Paul's, St. Augustin's, Ch. Wesley's, etc. It is less well known that they can be matched by numberless noteworthy ethico-religious transformations of our humblest contemporaries. The following recent instance taken from the appendix to the author's paper, "Studies in the Psychology of Religion, Amer. Jr. of Psy. Vol. VII., will add definiteness to the experience under consideration.

G., age 40, converted twenty months ago. Now Superintendent of a Mission:

Until the age of twenty-one he lived in a Christian home. He took his first glass of whiskey at that age and gradually became a drunkard. Three years ago, after the ruin, through dissipation, of his business establishment, he went to Canada, where no one knew his antecedents, with the intention of beginning life anew. But soon he fell a prey to his old enemy. He had signed enough abstinence pledges to "cover the wall of a room." They were never kept more than a month, generally only a few days, and sometimes but a few hours, in spite of hard struggles to be true to his promise. In Montreal he lost a very good position (\$70 a fortnight) and was thrown into prison for disorderly conduct. Disgusted and tired of life, he left Canada to go to W., where he arrived intoxicated. He secured a position, but was soon dismissed for drunkenness, and then found himself once more without money, without friend and without home. Gladly would he have welcomed death. As he was in this wretched situation, a lady showed him sympathy and invited him to a Mission. Her kindness made him look within. For years no one had ever cared about him; this unwonted kindly interest went to his heart. At the meeting a pressing invitation was given to all persons present to give themselves to the Lord Jesus Christ with the assurance that He would save them. A bed was given him in the While his room-mate lay drunk, he sat up or Mission-house. paced the room all night long in a sullen, despairing mood. Some one lent him a Bible; he tried to read it, but his thoughts were too disturbing. That which he had heard in the meeting had brought to his mind recollections of youth, the thought of the young wife he had left in England, of his family, etc. He realized that there was no hope, that if he died then he would go to hell. He prayed, asking God to take him as he was, saying that. if He was willing to save him he would let Him. "I said, here I am." At about 6 A. M. he felt that God had pardoned him. The anguish of the night had passed, and he found himself calm and peaceful. That very morning he told a companion that he was converted, that he had given his heart to God. Terrible were the temptations that day, as he passed before the saloon doors; but he was kep They recurred day after day for more

than a week. The lady's continued sympathy was a great comfort to him.

Three months after his conversion, he opened a Mission, which progressed rapidly, and is now doing very good work among the outcasts. (Written from detailed notes taken while he was relating his conversion to me.)

As our purpose in this paper is to investigate the nature of the forces at play in conversion, it would be advantageous to choose for our observation material, sudden and well marked instances, for the psycho-physiological machinery ,if we may be allowed the expression, appears much more clearly in these than in the slower and less complete cases. But it will be better still if we consider the conditions and circumstances under which large numbers of striking conversions take place, i. e., "Revival" meetings. The limited space at our disposal will not make it possible for us to do much more than hint at facts which would need elucidation to gain their full weight in the mind of the reader. Before we proceed, however, two points should be agreed upon:

(1) Sudden transformations in the intellectual, affective, and even in the moral life are by no means limited to religious influences, as it is sometimes believed. The student of insanity and of the disorders of the nervous system in general, is familiar with character-transformations which, in point of depth and extent, leaving out the question of direction, do not yield to the most astonishing examples of Christian conversion. We recall, for instance, the numerous cases of multiple personalities carefully reported in scientific publications during the last few decades. There is a class of mental disorders called Circular Insanity, because the patient passes periodically through a cycle including melancholia, comparative equilibrium and mania. Instances of this disorder may be found in almost every insane hospital. Similar, but less intense changes, will be a familiar experience with nearly all normal persons in the habit of taking notice of their moods.

(2) Transformations similar to those just mentioned may be .artificially induced especially, but not exclusively, by suggestion

practiced during hypnosis. We mention only the remarkable case of Lucie in whom Pierre Janet brought to light, by means of hypnotic suggestion, three distinct personalities.\*

That the physiological activities can be powerfully altered by means of suggestion either during hypnotic sleep, or outside of it, is to-day a universally acknowledged fact. Of particular interest to us are the remarkable results obtained in the treatment of dypsomaniacs and drunkards. We quote from the tabulated report of Dr. Ch. Llovd Tuckey (London), to the third Congress of Psychology. "Out of 65 cases treated (39 men, 26 women), cured, 15; relapsed after apparent cure of two years, 2; died six months after apparent cure, 1; much benefited permanently, 7; relapsed after three to six months, 30; no effect, 10. At the same congress, Dr. Bramwell (London) reported a case of seventeen years' duration which has remained cured now for seven years. Family history very bad, a brother died from drink, a cousin drank to excess and committed suicide. Forel, in his book, "der Hypnotismus," relates the beautiful cure of a confirmed drunkard, 70 years old, who had twice attempted suicide.

Not one of the Missions opened in the dark portions of our large cities meet with an equal degree of success in their effort to save drunkards.

It is only very recently that the students of "suggestion" have turned their attention to its moral therapeutic value. In the Revue d'Hypnotisme and the Zeitschrift für Hypnotismus, Liebaux Voisin, Berillon, Ladame, and many others, have reported many cures of ethical defects and vices, wrathfulness, jealousy, deceitfulness, laziness, timorousness, stubbornness, etc. Dr. Berillon has even opened a clinic to which children of the public schools of Paris are regularly sent for treatment.<sup>1</sup> That the improvement does not bear merely on some specific evil habit, but may be a re-forming, a re-casting of the character will be made evident by the following instance reported by Aug. Voisin:<sup>2</sup>

<sup>) \*</sup>L'Automatism Psychologique.

<sup>1.</sup> See his pamphlet, "L' Orthopélie Mentale," Rueff & Co., Paris, in which are gathered the best results of his own practice.

<sup>2.</sup> Revue de l'Hypnotisme, 1899, p. 130-132.

A boy 16 years of age was brought to Dr. Voisin to be cured of bad instincts. "Since the age of 13, when he suffered from tetanus, he had nystagmus and a pronounced lisp, but before that disease, and already from the age of 6 or 7, he had an insufferable disposition. He was deceitful, disobedient, cruel and, moreover, a thief. Year by year his bad instincts grew worse. He was sent back home from several institutions.

"During the two last years, his thieving propensities have much increased and he gave himself up to debauchery. He steals from his mother to indulge his sexual vice. Onanism has moreover become a passion to which he yields even before his mother. He prides himself upon his wickedness.

"After three seances, he fell into hypnosis. From the very first following seance, the young man ceased to steal and his character improved. He was hypnotized every three days; the suggestions were made to bear successively upon his bad character and upon his several vicious instincts. On the 6th of July, the young man was completely transformed. The desire to do evil had disappeared and was replaced by the wish to do good. He had now the earnest intention to obey and otherwise please his mother. He was in a way no more the same youth. As soon as he had entered my office, he would tell me of the happiness he felt at his change."

On the 20th of October, after an interruption of six weeks in the treatment, he had not fallen back, and on the 13th of July last, 1899, a student of the "Ecole Normale Supérieure" who had taken an interest in the young man, wrote to Dr. Voisin: "I have again seen intimately, the young man of whom we spoke together, and my first impressions have been confirmed. The transformation appears to me to be now complete; he wants to do right and strives for success. He speaks with horror of his past life. Moreover, he is fully awake to the beauty and desirableness of the new life opening before him ,and he desires it with all his heart. It seems even that he is no more tempted."

This is a transformation "of the heart" as complete as a revivalist could desire it, and in a particularly unpromising subject. These two preliminary points established, we can turn to

the peculiar psychic atmosphere of Revivals and to the nature of the influences which create it. We shall, of course, be able to take notice of the more powerful factors only; a minute study would fill a volume. The theses which we maintain and intend to prove in the following pages are (1) that the effect of the ethico-religious commotion called a "Revival" is to produce in many a state of increased suggestibility which would make possible more or less sudden and comprehensive alterations of character, provided sufficiently powerful and frequent suggestions to that effect be made to those under the influence. (2) That the suggestions are in fact made, reiterated and effectively supported by a formidable mass of facts and circumstances.

Our task will be much shortened and made easier by the unusually intelligent account given of the Northampton revival by its promoter, Jonathan Edwards, the distinguished theologian and metaphysician.\*

Northampton was at the time a town of 200 families. At the death of Edward's grandfather, Stoddard, whose successor he was, the youth of the town had fallen below the New England average of public morality. Under Edward's ministry, they amended In 1734 two young people died suddenly and little by little. that event, together with the sermon preached on the occasion, influenced greatly the small community,---it must not be forgotten that the ground had been prepared by Edward's early activity. "Young people began to meet for religious edification in several parts of the town. Shortly after, a young woman, one of the greatest company keepers in the whole town, was next converted, The news of it seemed to be almost a flash of lightning upon the hearts of the young people all over town. Presently upon this, a great and earnest concern about the great things of religion and the eternal world, became universal in all parts of the town,-all other talk but about spiritual and eternal things was soon thrown by.

"It then was a dreadful thing amongst us to lie out of Christ, in danger every day of dropping into hell; and what persons'

<sup>&</sup>quot;"A narrative of surprising Conversions in Northampton" and another pamphlet by the same author on "The Revival of Religion in New Engiand."

minds were intent upon was to escape for their lives and to fly from the wrath to come. Souls did, as it were, come by flocks to Jesus Christ.

"Our young people when they met were wont to spend the time in talking of the excellency and undying love of Jesus Christ. And even at weddings, which were formerly merely occasions of mirth and jollity, there was now no discourse of anything but the things of religion, and no appearance of any but spiritual mirth." The contagion spread to neighboring villages and cities; all were affected, young and old, rich and poor, sober and vicious. 'I hope that more than 300 souls were savingly brought home to Christ in this town, in the space of half a year, and about the same number of males as females. Many elderly persons; upwards of 50 above 40 years of age.'

The little Northampton town was subjugated and maintained for six months under one poignant fear or one inexpressible joy. Would you know more definitely what ideas filled the minds of the people? Edwards numbers them as follows: An extraordinary sense of the awful majesty and greatness of God, so as often times to take away the bodily strength; a sense of the holiness of God, as of a flame infinitely pure and bright, so as some times to overwhelm soul and body; a sense of the piercing all seeing eye of God, so as sometimes to take away the bodily strength and an extraordinary view of the infinite terribleness of the wrath of God which has very frequently been strongly impressed on the mind together with a sense of the ineffable misery of sinners that are exposed to His wrath, that has been overbearing." No wonder that persons fainted, that their flesh waxed cold and benumbed, that their bodies were set into convulsions, "being overpowered with a strong sense of the astonishing, great and excellent things of God and the eternal world."

Before putting down his pen, Edwards, as if to convince the blindest and place our first thesis absolutely out of doubt, narrates the following event: "Six months from the beginning of the awakening, in the latter part of May, it began to be very sensible that the spirit of God was gradually withdrawing from us. The first instance wherein it appeared was a person putting an end to

his own life, by cutting his throat. He was of a good, intelligent family, but prone to the disease of melancholy and had been extraordinarily concerned from the beginning of the awakening. He was kept awake nights, meditating terror, so that he had scarce any sleep at all, for a long time.

"After this [suicide] multitudes in this and other towns seemed to have it strongly suggested to them and pressed upon them to do as this person had done. And many that seemed to be under no melancholy, some pious persons, that had no special darkness or doubts about the goodness of their state, nor were under any special trouble or concern of mind about anything spiritual or temporal, yet had it urged upon them, as if somebody had spoken to them: 'Cut your throat, now is a good opportunity. Now! Now!' So that they were obliged to fight with all their might to resist it and yet no reason suggested to them why they should do it. About the same time, there were two remarkable instances of persons led away with strange, enthusiastic delusions."

We have before us a whole community for whom hell and heaven were kept gaping day and night during six months by a skillful, persistent and terribly earnest man. Every day the sombre dread and the glowing delight were intensified by new convulsions and new conversions. That the population could not be otherwise than in one of those abnormal conditions in which the force of alien ideas is indefinitely multiplied, will be evident to all.

We have described the Northampton revival under Jon. Edwards, but Whitefield, Tannant, Davenport, Nettleton, Hallock, Wesley, Finney, Moody, Pearşall, Smith, General Booth, etc., obtained similar results by similar means. Their methods differed as to details of procedure and as to the prominence given to this or that emotion. The results are of a finer or coarser grain according to the degree of perfection attained by the revivalist himself. The finished graces of the Christian gentleman cannot be expected to blossom under the ministry of the southern evangelist, now stumping the country escorted and supported by responsible clergymen, who uses the following simile: "Some of

you people-ministers included-can't get down and pray any higher than you can spit."

Means of the same kind have been used and are being used in the Roman Catholic Church.<sup>\*</sup> They have been systematized in the institution called "Retreats." A Retreat lasts a certain number of days with no less than three and sometimes five daily services. In France it is usually conducted by three priests, one chosen for his unction,—he officiates in the early morning; another with a turn for the diverting,—he speaks at noon; and one able to stir the awful and fearful emotions,—he preaches in the evening. The themes of the sermons are, during the first half of the Retreat, death, judgment, hell; it is the "Purgative Life." Then follows the "Illuminative Life"; it treats of the love of God, the work of the Holy Ghost, etc.

The children's Retreats last usually six days. Some priests have made a reputation by their successes with children. One of them, a curate of Notre-Dame-du-Mont, had from 300 to 400 children yearly. The last day of a retreat he would lock the doors of the church and forbid even the sexton to walk about. The church was darkened; a pall stretched out before the sanctuary bore a crucifix and two holy candles. In this artfully prepared temple he would preach a sixty minutes' discourse on Christ's Passion, describing with minute realism every detail of the crucifixion, the thorns penetrating into the skin, the blood trickling down the face, the moral anguish of the loving Savior. etc. Before he was half through his sermon, sobs would break out and spread among the terrified children.-the day was won. When in this state, they were sent to confession. One of these professional convert-makers refused his subordinate permission to limit a Retreat to three days. "Do you not know, said he, that it is only on the 5th or the 6th day, when the children begin to be enervated, that we obtain results?"

Although extremely incomplete, the preceding comparative study warrants, in our opinion, the conclusion that the religious experiences we have considered, instead of being looked upon as

<sup>&</sup>quot;The "Spiritual Exercises" of Loyola and its adaptation to popular needs under the title "Fleurs et Fruits de Manrèze" are admirable applications of the finer points of the psychology of suggestion to the art of conduct.

sufficient evidence for the existence of superhuman, personal agents operating upon man, should be regarded as due to the potency obtained by appropriate ideas when communicated to persons in a peculiarly favorable psycho-physiological condition. i. e., a condition of "increased suggestibility."

The grace of God becomes, according to this view, a power inherent in human nature instead of an alien force. Thus psychological science finds itself in agreement with what seems the only interpretation that can be put upon the central idea of the theology in process of formation: the Immanence of God.

"Suggestion u. Hypnotismus in der Völkerpsychologie," Otto Stoll (1894).

"L'Hypnotisme dans la Genese des Miracles." Felix Regnault (1894).

"The Spiritual Life," by Geo. A. Coe (1900). "La Foule Criminelle," Scipio Sighele (1892).

- "La Psychologie des Foules," Le Bon.
- "Epidemics in the Middle Ages," Heeker.

That the forces at play in religious life, among Christians as well as among barbarians are properly classified as suggestive forces, has long been believed by many. It is the prevalent opinion among professional psy-chologists. But the scientific work, which will scrutinize the phenomena of the higher religious life, and bring to bear upon the thesis here maintained all the weight of the facts now accessible, has not yet appeared. The fol-lowing works contain valuable information:

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