

# **Are There Hypnotic Hallucinations?**

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When we first formed our acquaintance with hypnotic phenomena, we had many reports of the wonderful feats possible in the hypnotic state. Among the many marvels hypnotic and post-hypnotic hallucinations induced by suggestion occupied a prominent place. A good many of such hypnotic studies have been the result of amusement and at best of wonder. If it be true as Plato and Aristotle tell us that the origin of science is in wonder, all that is well and good as a beginning. When however we find that the beginning persists, when we find that the apparently precocious baby does not reach its adolescence and manhood, we begin to wonder what the trouble may possibly be, and whether it is not a case of mental defectiveness. When we find that as the literature of the subject grows the same state of blank wonder still persists; when we find that hallucinations induced by suggestion are described in

all their minutiae without the least critical psychological analysis of the phenomena, it is time to ask whether the preliminary stage of hypnotic marvels and mysteries has not lasted too long. It is well to pause and ask the question: "Are there any hallucinations hypnotically suggested? Does the subject really experience the hallucinations?" We rarely find in the whole literature of the subject that any of the writers should even as much as refer to the question the validity of the hypnotic hallucinations. The hypnotic subject accepts the experimenter's suggestion and the experimenter takes the subject's honest word on faith. The trust is mutual. He however who has devoted time and reflection to latter realizes that the introspective account of the hypnotic subject must be taken *cum grano salis*. First, because one rarely finds a subject who is able and trustworthy to give an introspective account; and second, one must always remember the training and extreme suggestibility of the subject, a suggestibility which makes the subject insist on what the experimenter suggests to him, no matter whether he really experiences it or not. This is the dangerous pitfall of hypnosis, into which many an investigator in this field has fallen. We cannot possibly base our scientific generalizations on the insight and 'psychologizing' of one hypnotic case, nor can we accept universally the statements of the subject on the ground that the latter is of an exemplary conscientious character. One must be constantly on his guard, have many cases

and keep on constantly sifting his material and that with a good deal of scepticism. One must watch his subjects or patients very closely, always have his suspicions, compare their statements with one another and especially with those of the same patient in various states.

In my experience of many years with hypnotic subjects, some of whom went into a deep somnambulistic state, a doubt gradually began to arise in my mind as to the validity of the hypnotic hallucination. When I came to devote my time to studies of cases afflicted with hallucinations, the doubt grew stronger and almost became a certainty. I could not help reach the conclusion that the hallucinations hypnotically suggested are not genuine. In other words, facts lead me to think that there is no hypnotic hallucination in the strict sense of that word.

Before we proceed with our discussion it may be well to give an analysis, however brief, of the percept of hallucination, and then compare the latter with experiments and observations of hypnotic and post-hypnotic hallucinations.

We may begin with the percept and its elements. In looking at the vase before me I see its beautiful tints, its rounded shape, its heavy pedestal with its rough curves, its solidity, weight, brittleness and other experiences which go to make up the perception

of the vase. Now, the visual elements are given directly by the visual perceptive experience; but whence come the seemingly direct experiences of weight, heaviness, roughness, smoothness, and others of the like kind? They are evidently derived from other senses. The whole perceptive experience is of a visual character. We take in the whole with our eye. In the organic structure of the percept then, besides the experiences directly given by the stimulated sense-organ, there are other experiences, sensory in character, indirectly given, and coming from other sense organs which are not directly stimulated.

The percept is a complicated dynamic product, and its elementary processes are never derived from one isolated domain of sensory experience. The activity of all the sensory domains coöperates in the total result of an apparently simple percept. Along with sensory processes directly stimulated, a mass of other sensory processes become organized and help to contribute to the total result. The direct sensory elements are termed by me *primary sensory elements*, the indirectly given experiences are termed *secondary sensory elements*. The secondary sensory elements may be figuratively said to cluster round the primary sensory elements as their nucleus.

The whole perceptual experience is tinged by the character of the primary elements which constitute the guiding nucleus, so to say. Thus, where the

primary sensory elements are visual, the whole mass, no matter from what domain the sensory experiences are derived, appears under the form of the visual sense, and the percept is a visual percept. While the primary sensory elements form, so to say, the dynamic center of the total perceptual experience, the secondary sensory elements mainly constitute its content. Both primary and secondary elements are sensory and are induced peripherally; the primary directly, the secondary indirectly. The percept then is sensory and is constituted by primary sensory elements, or primary sensations, and by secondary sensory elements, or secondary sensations.

The character of the secondary sensory elements stands out clear and independent in the phenomena of synæsthesia, of secondary sensations. In synæsthesia we have a sensation of one sense organ followed, without an intermediary direct stimulation, by a sensation coming from another sense organ. Thus, when a sensation of light instead of giving rise to a subsequent idea gives rise to a sensation of sound for instance, we have the phenomenon of secondary sensation. Here the secondary sensations stand out free and distinct, but they are really always present in our ordinary perceptive experiences as bound up secondary sensory elements, as secondary sensations grouped around primary sensations.

When the phenomena of synæsthesia were first brought to the notice of the scientific world, they were

regarded as abnormal and exceptional, and only present in special pathological cases. Soon however their field became widened, and they were found not only in the insane and degenerate, but in many persons otherwise perfectly normal. We find now that we must further widen the field of secondary sensory elements and, instead of regarding them as a freak of nature existing under highly artificial conditions, we must put them at the very foundation of the process of perception.

Secondary sensations are at the basis of perception. We have become so accustomed to them that we simply disregard them. When, however, the conditions change, when the secondary sensations stand out by themselves, isolated from the primal nuclear elements with which they are usually organically synthetized into a whole, into a percept, when they become dissociated, it is only then that we become conscious of them directly and declare them as abnormal. Secondary sensations are always present in every act of perception; in fact they form the main content of our perceptual activity, only we are not conscious of them and it requires a special analysis to reveal them. Secondary sensations *per se* are not something abnormal—just as hydrogen present in the water we drink or the oxygen present in the air we breathe are not newly created elements,—it only requires an analysis to discover them. If there be any abnormality about secondary sensations, it is not in the elements themselves, but rather in the fact of

their dissociation from the primary nuclear elements.

Now when the secondary sensory elements come to the foreground and stand out clearly in consciousness, a full-fledge hallucination arises. In the phenomena of synæsthesia we have hallucinations in the simplest form, inasmuch as only isolated secondary sensory elements dissociated from their active primary central elements stand out in the foreground of consciousness. This very simplification however of hallucinations reveals their inner character. The most complex hallucinations are only complex compounds, so to say, of secondary sensory elements. Hallucinations are not anything mysterious, different from what we find in the normal ordinary processes of perception; they are of the same character and have the same elements in their constitution as those of perception. Both hallucinations and percepts have the same secondary as well as primary elements. The difference between hallucinations and percepts is only one of relationship, of rearrangement of elements, primary and secondary. When *secondary sensory elements become under conditions of dissociation dynamically active in the focus of consciousness we have hallucinations.*<sup>1</sup>

From this standpoint we can well understand why a hallucination, like a percept has all the attributes of external reality. A hallucination is not any more mysterious and wonderful than a percept is.

We do not recognize the humdrum percept, when it appears in the guise of a hallucination, and we regard it as some strange visitant coming from a central, from some supersensory universe. Hallucinations, like percepts, are constituted of primary and especially of secondary sensory elements, and like percepts, hallucinations too are induced peripherally.

Now how is it with suggested<sup>2</sup> or hypnotic hallucinations? Do we find in hypnotic or suggested hallucinations, as in the case of hallucinations in general, the requisite primary and secondary sensory elements directly and indirectly induced? Binet makes an attempt to establish a peripheral stimulus in the case of hypnotic hallucinations, claiming that there is a *point de repère*, a kind of a peg, on which the hypnotic hallucination is hung. It is questionable whether Binet himself still maintains this position. However the case may be, this position is hardly tenable when confronted with facts. Hypnotic hallucination may develop without any peg and prop. Furthermore, granted even that now and then such a peg could be discovered, and that the alleged hypnotic hallucination develops more easily when such a peg is furnished, still the fact remains that even in such cases the peg is altogether insignificant, that it is altogether out of proportion and relation to the suggested hallucination, and that on the same peg all kinds of hallucinations can be hung, and that finally it can be fully dispensed with. All this would go to show that the peg, as such, is of no consequence, and

is really more of the nature of an emphatic suggestion for the development of the alleged hypnotic or post-hypnotic hallucinations.

The arbitrariness of the hypnotic hallucinations, showing that the whole thing is simply a matter of representations, or of what the patient happens to think at that particular moment well brought out in the following experiments: Mr. F. is put into a hypnotic state and a post-hypnotic suggestion is given to him that he shall see a watch. On awakening he claims he sees a watch. The eyeball is then displaced, the watch is also displaced; now when the eyeball returns to its normal condition we should expect that the hallucinatory watch would return to its former place; but no, the watch is not perceived in its previous place,—it appears in a displaced position. The hallucinatory watch could thus be displaced any distance from its original position. The patient evidently did not see anything, but simply supplied from his stock of knowledge as to how a seen watch would appear under such conditions, and he omitted to notice the fact that with the normal posit of the eye the watch should once more return to its former position. Such inconsistencies are often found in hypnosis. More intelligent and better informed patients would reason out the matter differently and would give different results. If the subject knows of contrast colors and if a color is suggested to him he will without fail see such contrast colors. If his eyes have been fixed on some hallucinatory color, such as

red, for instance, he will even give you a detailed account of the green he sees, but if he does not know anything of the effects of contrast colors no amount of fixation on hallucinatory colors will bring out the least contrast effects. The reason is the patient does not know anything about it and cannot think of it. We tried to mix by suggestion different hallucinatory colors, and as long as he knew nothing of the real results his replies were uniformly wrong; no sooner did he find out what the right mixture *should* be than he gave correct results. The hypnotic subject really does not perceive anything; he simply tells to the best of his abilities what he believes he ought to see under the given conditions.

It is extremely interesting to make one experiment which gives an insight into the alleged suggested hallucination and shows its fictitious character. The experiment succeeds best when the subject is unprepared and is taken off his guard. I have tried it in various cases and have had uniform results. A suggestion is given to the subject to see a watch, say, on awakening. When he awakens, the watch of course is claimed to be seen in a kind of perfunctory manner. If now another watch is put near the hallucinatory watch, the real watch is not taken notice of; it is absolutely ignored as if it did not exist. If his attention is drawn to the real watch the subject still continues to treat the real watch as unreal, and the suggested hallucination watch as the only real one. It is evident that in his honest to carry out the

suggestion he overdoes the matter and clearly reveals the fictitious character of his alleged hallucination, which he in fact does not experience. If now we give him the benefit of the doubt and tell the subject, when in the hypnotic condition, that when he wakes he will see two watches, thus calling his attention by suggestion equally to both watches, one as much as the other, on awakening he still ignores the real watch and his whole attention is occupied with the hallucinatory watch. The subject simply overacts. He is so anxious to carry out your suggestion and oblige you. If we now try to test the matter by choice and ask him which of the two watches he prefers to have, he unhesitatingly points to the hallucinatory watch. When asked the reason, he replies almost anything that may at that moment occur to him; such for instance as that the hallucinatory watch is newer or bigger, or any old thing he may happen to think of, no matter how absurd the reason is. In his eagerness to carry out the suggestion and to show the reality of the hallucinatory watch he will choose the hallucinatory in preference to the real watch. The subject in short does everything in his power to convince us of the reality of his alleged hallucination, and in his eagerness he overdoes things, thus clearly revealing the fact that he really does not perceive the hallucinatory object. The so-called hypnotic or post-hypnotic hallucination is really not a hallucination and should not be taken as such; *the suggested hallucination is more of the character of a delusion.*

To take a couple more of my experiments with case!; of hypnotic subjects: H. R. goes into a deep somnambulistic state. I carried out on H. R. a series of experiments in color hallucinations. The results were far from being uniform. To take an example: He was given a suggestion to see red; he saw it, of course. He was then told to look at it and tell me what he saw. At first he answered at random; he saw the chair, the table, the books, and so on. When he found out that color was wanted he obliged me with that. All kinds of contrast colors, white, blue, yellow, orange and brown were given. No sooner did he find out the approved color than he saw it and stuck to it afterwards. Similar results I had in the case of mixture of hallucinatory colors. Red and green, for instance, gave all kinds of results but the right one. No sooner was the right color hit and felt by the subject that the experimenter approved of the guess, than he kept on 'seeing' it without any further modification.

All through these experiments a good deal of fishing was done by the subject, and this fishing was probably the most instructive part of the experiment. On the whole, I must say that the statements of the hypnotic subject should be treated with extreme circumspection. I often wondered which of the two is the greater dupe, the subject or the hypnotizer.

On one occasion I suggested to H. R. to see a hallucinatory pencil; he saw it, of course. He was given the suggestion to insert the pencil in water; he

did so. 'What happened to the pencil?' I asked. 'It turned red,' he replied. When, however, he found out that the experimenter had in mind the refraction of the pencil, then his pencil behaved accordingly. The subject, especially the good one, the one who is capable of good training, is eagerly on the lookout for the slightest wish and caprice of his manager, and is always fishing for the best way of doing it, of carrying out those wishes to the delight of the hypnotizer.

In cases of primary dementia or dementia præcox and katatonia under my observation and experimentation, now being carried on and soon to be published, I found hallucinatory states strikingly like those of hypnosis. Thus in one of my cases of katatonia, Q. M., the patient could readily be made to see all kinds of hallucinations, no matter how inconsequent. The patient could see a 'four-horned chicken with toes on its tail'; 'a cat with two legs and wings'; 'a tree with feet, eyes and wings,' and other visions of like kind. To demonstrate their reality the patient actually drew these visions. (Similar experiments were carried out by me on hypnotic subjects.) The patient could be made to see lions, wolves, elephants and tigers, and was no more afraid of them than the hypnotic subjects are in similar conditions. The fact is that neither the demented nor the hypnotic subjects actually experience the suggested hallucinations.

Experiments, therefore, point to the fact that

suggested hallucinations, hypnotic and post-hypnotic, are purely ideational and closely conform to the course of associative, ideational or representative activity. In other words, the subject does not wholly perceive the suggested hallucinatory object. He simply talks of it. The subject to whom I gave the suggestion of seeing the watch no more saw the hallucinatory watch than I saw it. He thought of the watch, and he claimed he saw it and acted as if he did see it. Furthermore, he was anxious to carry out fully my suggestion to the best of his abilities, and persuade me that he really did see an actual watch more real than a real watch. The alleged hypnotic or post-hypnotic hallucination is not at all of the nature of a hallucination, it is a delusion. All we do by such a suggestion is to act on the subject's belief. The subject believes that he perceives, and he, in his turn, as one under a delusion, tries to convince us of the reality of his belief; and I must say that he is quite successful in imparting this delusional belief to the experimenter himself thus unconsciously, but ironically none the less, repaying his deluder in the same coin.

One of the special characteristics of hallucinations, as of percepts in general, is that of *reality* or of *externality*. The hallucination, like the percept, during the time it is experienced, is clothed in the full garb of external reality. The hallucination is regarded by the percipient as an external object of perception. Hence he who suffers from hallucinations experiences them as he does any normal sensory

percept, and, unless he learns in other ways the hallucinatory character of his perception, he reacts to it as he would to any of his normal percepts of external reality. Now if we closely watch the subject possessed by the alleged hypnotic or post-hypnotic hallucination, we find that the inmost character of externality is sadly lacking. The sensory-motor reaction is by no means the one produced by the corresponding sensory percept. After all, the best criterion of an experienced percept, especially if it be that of another organic living being, is the total motor reaction. The proof of the pudding is in the eating. The subject does not react to the suggested pudding as if it were worth the eating, The reaction is by no means the one called out by the perception of an external object regarded for the time being by the percipient as actually present, no matter whether that presence be right or wrong, whether it be hallucinatory or not. The suggested hallucination calls forth a reaction, if there is any at all, of a very weak character and disproportionate to the suppose stimulating presence of the hallucinatory object. The motor reaction is such a one as is called out by a representation, by a thought of the object, but not by an actual perceptive experience of an external object, as it is in the case of an actual hallucination. In hallucinations of ghosts or of tigers, for instance, the patient actually perceives, sees the ghosts, the tigers, the serpents; but in suggested hallucinations the subject sees the suggested objects no more than we

do when we talk about ghosts, tigers and serpents, or when we suggest them to the subject. The subject thinks of the suggested hallucinations and acts as if he perceived them. In fact, the most we can do is to create in him a belief in the supposed presence of the suggested hallucinatory object. *The subject is not in the psychic condition characteristic of hallucination, but he is in the mental state characteristic of delusion.*

The most we can say of hypnotic, post-hypnotic, or suggested hallucinations is that they are saturated, so to say, with the belief in the supposed presence or existence of the object suggested, somewhat in the same way as the child believes in Santa Claus, or as the school boy believes in Washington, or as we believe in the existence of Julius Cæsar. The belief, however, is not of the vital over-bubbling stimulating effect given by a direct perception of an external object, true or hallucinatory, but is one essentially representative in character. And that is all that we can claim for the potency of the hypnotic state and efficacy of suggestion.

Hypnosis with its allied states can modify, undermine, create belief, and important modifications can be induced in the total mass of representative life activity. Associations and dissociations can be brought about in the dynamic process of representations or ideas, but we cannot create objective sensory miracles. If faith and ideas move the world, as they most certainly do, we have in our

hands a powerful instrument, which if intelligently used may prove of the greatest benefit to civilization and humanity. We should not, however, delude ourselves and ascribe to it mysterious magic virtues. The hypnotic state with its abnormally increased suggestibility can give rise to belief, to new associations and dissociations of ideas, but by no legerdemain can it produce, without the intermediacy of peripheral physiological processes, the faintest sensory element. Faith may move mountains, but it cannot create the minutest particle of dust, nor can suggestion create the most insignificant sensation.

We should not delude ourselves as to the power of suggestion, even if it be in the hypnotic state. A suggestion even in a hypnotic state, however deep, can do no more than a very vivid persistent idea can do in the waking state. An ideational process can give rise to motor and possibly to some glandular changes but no mental magic will ever make of it an external stimulus capable of giving rise to peripheral physiological processes resulting in a sensation with the cumulative effects ending perception. Suggestion cannot cause an amputated leg to grow, nor is suggestion a reliable antitoxin in infectious diseases, nor is it regarded as an efficacious antiseptic; it can hardly be credited with the power of destruction of the minutest bacterium, nor is suggestion regarded as possessing the medicinal virtues of regenerating a single destroyed neuron. Why then should we be so credulous as to endow suggestion with the wonderful

and mysterious qualities of producing sensations and percepts without their adequate complex peripheral physiological processes?

As far as our present knowledge of facts goes we are only justified in saying that the efficacy of the hypnotic state with its greatly increased suggestibility is limited entirely to ideational processes, to their integration and disintegration and that it can do no more than can be effected by a very vivid idea under the most favorable conditions. But are we justified in claiming that ideas however vivid can become sensations and perceptions? No more than our ideas of vapor can become the power of steam. We may as well claim that our idea, say of red, provided it is 'strong' enough, may give rise not only to the peripheral, physiological, sensory processes, but also to the requisite physical processes, to ether vibrations of color red, and thus influence by a backward 'reverse current,' so to say, the sense organs and mind of other persons.

We may arrive at that 'scientific' speculation of telepathy power possessed by our minds to impress the 'Universal Ether,' and imprint on it our thoughts and wishes and sensations and it simply remains for other men or 'sensitive mediums' to breathe in or take in the impressions that flood the ethereal universe.

There is not a particle of evidence that ideas, however vivid, may become 'centrally' transformed

into sensations. The idea of musk does not smell; the idea of white does not shine, and the idea of sound does not ring. The suggested hypnotic and post-hypnotic hallucinations, along with the alleged central hallucinations and other notions of like kind belong to the general category of psychological and psychopathological fallacies. It savors somewhat of the mediæval alchemists' belief that gold could be refined out of any old rubbish. Suggestion reminds one of the magic powers of the philosopher's stone,—its touch can convert the base metal of fictitious ideas into the pure gold of sensory experience. The wonder is that the world is not one large asylum for ideas to play gambols in, and raise havoc with all our sensory experience, and make us suffer from all kinds and forms of hallucinations, inasmuch as a high-pitched ideational activity would give rise to the same sensory elements and consequent perceptions as do peripheral stimuli and physiological processes. Our ideas would be regarded as realities and our great expectations as actualities. It is agreed on all hands that no sensation can be transformed into another even if they both belong to the same domain—the sensation of yellow cannot become orange much less that of sound, for instance, because they are qualitatively different. How then can we maintain the untenable position that ideas, no matter how intense and vivid, can ever become sensations, percepts, can ever form sensory and perceptive experiences, even if they be hallucinatory

in character.

The validity of hypnotic hallucinations has passed unchallenged, because of the dubious assumption of the central origin of hallucinations, an assumption still current among psychologists and especially among psychiatrists who still pin their faith to 'images and idols' and accept uncritically the introspective lucubrations of insane and demented. Although the introspective account of the hypnotic subject is far more trustworthy and valid than that of the insane and demented, it should be taken with the utmost caution and should not be too credulously accepted on its face value.

If we eliminate then the psychopathological fallacy of central transformation of ideas into sensations and percepts, we clearly realize the flimsiness, the spurious character of suggested, or hypnotic hallucinations. *We have first of all to prove that the subject actually experiences the suggested hallucinations.* We should not be blinded by a too devout worship of 'central images,' but should pay more attention to facts, to the actual mental condition of the hypnotic subject. The fact that the introspective account given by the subject confirms most emphatically the presence of an actual hallucination does not count in this case. The introspective account is just the one that is the *least reliable* in such cases because of the untrustworthy suggestible nature of the whole state, and as such should if possible be

avoided, especially in cases of long standing in which suggestibility has been trained to its utmost. We must always keep in mind the highly suggestible character of the hypnotic subject, and that from the very nature of his state of suggestibility he will stick to the apparently objective description of a pure ideational experience. We must remember that the suggested hallucination is given in terms of objective perceptual experience and that the more effective the suggestion is, the more suggestible the patient is, the more will he insist in his introspective account an objective description of his experience given to him in the suggestion by the experimenter. The so-called *hypnotic hallucination is an artifact elaborated by both parties in the experiment*,—it is a kind of unconscious collusion formed between the experimenter and the subject.

In order to find out the delusional nature of the suggested hallucination it is well to begin with an intelligent trustworthy subject who has no knowledge of the marvels and mysteries of the hypnotic state and no training has yet been permitted to effect by means of the cumulative effect of suggestion the highly artificial results which destroy the value of many a valuable case. Now if we take a fresh case with no mystical humbug about it we meet with results far different from those which a usually described and reported. Of the various cases under my observation and experimentation I may take the case of a patient who went into a deep hypnotic state. To quote from

my notes: "Mr. N. goes into deep trance. While Mr. N. is in the hypnotic trance I suggest to him that as soon as he wakes he shall go to a jar full of water and look into it and see a series of scenes from his former life. On awakening and hearing the signal he goes to the jar, looks into it, and begins to recite the scenes or the events of his former life. I suddenly stopped him and asked him: Do you see all that in the jar? No, he replied, I see it my mind; I have it all in my mind." The subject did not really see it; he simply thought of it. The subject is hypnotized again; the suggestion of hallucination is enforced. On being wakened, when the signal is given he goes to the jar, looks into it, and begins once more to recite his supposed visions. Do you see them in the jar? I ask again. I do not know, he answers, whether I see them in the jar or in my mind; it is hard to tell. Evidently my succeeding suggestion has brought about some hesitation in his belief or attitude as to the pure ideational character of his supposed visions. He would not have hesitated in his statement as to the whereabouts of the alleged hallucinatory objects had he perceived the actual external objects as is the case in actual hallucinations. The hesitation is also instructive from another standpoint, namely, the training which the subject gets by the form and insistence of the suggestions given to him. The patient was just on the point of giving way to the suggestion of objectivity of pure ideational experiences; a few more experiments and suggestions and he would have given a full

description of a suggested hallucination in its full perceptual objective glory, so delightful to the heart of most experimenters. The simple truth of the whole matter is that the patient had not the least perceptual experience of the objects suggested by the alleged hallucination; he did not see anything, he did not see the scenes anywhere, he only thought of them, he simply remembered them, possibly very vividly, but still they were only thoughts, memories, and not perceptions, not actual visions.

I could similarly bring from records a number of other cases under my observation, cases in which the suggested hallucinations were at first regarded as unsuccessful and only after some repetition have the hallucinations apparently become fully developed. Thus in some of the cases put into hypnosis for the first time the subjects declared on awakening that they did not see anything, but that the thought of the suggested object came to their minds. What really happened was that the subjects not as yet trained by a whole course of 'suggestive treatment' gave me a real account of what was actually taking place in their minds. Such results are usually regarded as unsuccessful suggestions, As a matter of fact, it is such failures that are really successful and that give the actual state of mind, while the *successful suggested hallucinations are artifacts*.

Dr. R. D., with whom I carry on extensive series of experiments, goes into a very deep somnambulistic

state. He is an excellent visualizer and takes readily visual hallucinations. Being a trained physician and psychiatrist the subject's account is all the more valuable.<sup>3</sup> Now R. D. describes his hallucinations as 'mental pictures,' as 'auditory memories,' which 'lack exteriority, are not located in space.' He aptly characterizes his hallucinations visual, auditory, and others, as '*fixed ideas.*'

Mr. M. goes into deep hypnosis. When in one of the deep trance-states a suggestion is given to him that on awakening he shall see a watch. When awake he claimed he saw a watch. He was asked: 'Do you really see it?' He replied 'Yes.' The interesting point here was the fact that the subject did not even look in the direction, where the suggested hallucinatory watch was supposed to be placed and where he himself claimed that the watch was located. When tested by automatic writing the hand wrote: 'Yes, I see the watch.' The subconscious then was also under the influence of the suggested hallucination. This point it is well to bear in mind.

Rehypnotized, and suggested that on awakening he would see two watches. One was a real silver watch and the other was hallucinatory. The subject claimed he saw both, but he handled the hallucinatory one, and when asked which of the two he would prefer he pointed to the hallucinatory watch. When asked why, he replied that the suggested watch was bigger. He was really indifferent to the chosen

watch and paid no further attention to it as if it did not exist for him.

He was again put into the hypnotic state and was suggested to see a flower. On awakening he claimed he saw a flower and smelled it in an indifferent, perfunctory fashion. The subconscious was then tested by automatic writing and the writing was to the effect that he saw it: 'I see a flower.' The subconscious then had also the same hallucination. A series of similar experiments was carried out with the same results. *The subconscious claimed in automatic writing that the suggested hallucination was real.*

The subject was again put into hypnosis and was given the suggestion that he would see a watch on awakening, but here I made some modification. 'When you wake up you will be sure to see a watch,' I said, emphatically. 'Look here; I want you to write what you really see and not what you do not see.' When awake he saw a watch, but he immediately wrote: 'I do not see anything.' *Here the subconscious disclaimed the suggested hallucinations which it had claimed and insisted on before.*

Rehypnotized, and was given the suggestion that on awakening he would see three watches. He was awakened and a real silver watch was put before him; the other two were hallucinatory. He claimed he saw all three. Meanwhile, in automatic writing he wrote: 'One silver watch, real, the other golden, not real;

nothing there.' A series of similar experiments was made and with the same results. *The automatic writing disclaimed the hallucinations, although before, under the same conditions, most emphatically insisted on their reality.*

The subject was put into hypnosis and a post-hypnotic suggestion was given to him that he would see his wife and child. When awake he began to smile, and when asked why he smiled he said: 'I see my wife and child'; but he wrote: 'I see nobody.' When put again in hypnosis he still continued to smile and said: 'I see my wife and child'; but he wrote (in hypnotic state): 'I do not see them really; I see nothing; I see my child, but I really see nothing.' "What do you mean," asked, "by 'I see my child, but I really see nothing'?" To which he replied: 'I mean that I see my child in my mind only, but 'in honest' I don't see anything.'

I then gave him a posthypnotic suggestion to see a snake. He claimed on awaking that he saw a snake. He manifested little fear. He certainly did not behave as if he really saw a snake and instead wrote "I see a snake. I see it in my mind." A great number of similar experiments were carried out by me varying the suggestions and all with the same results. I shall not burden the reader with a detailed account as they all gave identical results.

At first the automatic writing claimed emphatically the presence of the hallucinatory object

and when the truth of the automatic writing was insisted on, the writing disclaimed fully the perception of the hallucinatory object. Finally we came on the real character of the suggested hallucination; I see my child but *honestly*, I do not see anything; I see my child in my mind only; I don't see anything.' In other words, if we take the facts plainly and do not play hide and seek with the subconscious, we come to the conclusion that in the suggested hallucinations the subject does not perceive anything as is the case in an actual hallucination but that he simply represents, vividly perhaps, what is suggested to him; in short he does not perceive but he simply *thinks* of the suggested hallucinatory object.

Another interesting point may be brought out here. The automatic writing, as is usually the case, is not taken cognizance of by the patient, and, although this same writing at first claimed the actuality and genuineness of the suggested hallucinations it gave in the second series of experiments the real insight into the whole matter: 'I see the child; I see nothing; I see it in my mind'; or 'I see the snake; I really see nothing; I see it in my mind.' When the subject was made fully conscious of his automatic writing and became fully aware that he was being entrapped he once more began to claim in automatic writing the actuality of the suggested hallucination. As long then as the automatic writing was regarded by the subject as independent for which he was not responsible and as long as the suggestion of the hallucination was

not taken as directly addressed to it, the subject himself frankly acknowledged the fact that he did not see anything. The cat was thus let out of the bag. No sooner, however, was this truth of the automatic writing brought home to the subject so that he should be confronted with it directly and squarely, than he was bound by the fact of the given suggestion to claim that he actually saw the suggested hallucinatory object, although he really did not see anything at all. This is most instructive. For it shows clearly that the hypnotic consciousness, from the very nature of its heightened suggestibility, clings most anxiously to the given suggestion and insists on the reality of its fulfilment. We must, therefore, be on our guard and not trust the subject's introspective account, unless it is well sifted by good circumstantial evidence. It is because such precautions have not been taken in the close interrogation of the subject's actual state of mind, and because the deep-rooted psychological fallacy as to the relation of ideational and perceptual activities that the prevalent belief in the validity of suggested hallucinations has passed unchallenged. If not for those factors, it seems to me, it would have been quite evident that *hypnotic and post-hypnotic suggested hallucinations are not genuine, but are essentially spurious; that hypnotic hallucinations, unlike actual hallucinations, are really not experienced; that hypnotically suggested hallucinations are only forms of delusions.*

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<sup>1</sup> For a full account see my paper '*An Inquiry into the Nature of Hallucinations*,' THE PSYCHOLOGICAL REVIEW for January and March, 1904; also the excellent paper on '*Hallucinations*' published by my friend and former associate, Dr. Wm. A. White, superintendent of the Government Hospital for the Insane, Washington, D. C., in *The Journal of Nervous and Mental Diseases* for November, 1904.

<sup>2</sup> Throughout this paper I use the term 'suggested hallucination' to indicate the character and origin of the latter. The term seems to me convenient and may prove acceptable.

<sup>3</sup> The experiments will be published in full.

<sup>4</sup> The MS. of this article was received March 11, 1906.—ED. [On a Sunday?]

**Boris Menu**