

TECHNICAL REPORT (5)(3) HYPNOSIS IN INTELLIGENCE

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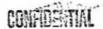
HYPNOSIS IN INTELLIGENCE

Hypnosis is one of the oldest techniques for altering and controlling human behavior. A method that has had its share of mistrust and professional neglect, hypnosis in the past twenty years has been the subject of serious inquiry and sustained interest. During this time, and even before, professional hypnotists have speculated on the possibilities of using hypnosis in warfare and in intelligence work. They have proposed that hypnosis could be used to strengthen the psychological defenses of captives and that it could be the means of gaining compliance from otherwise uncooperative persons. This paper explores some of the operational implications of these proposals.

The Nature of Hypnosis

Hypnotism was once called "mesmerism," after Anton Mesmer, perhaps the most famous of all hypnotists. It was also commonly known as "the sleeping trance," and until recently, professionals in the field continued to regard hypnosis as a sleep-like condition, a state of consciousness somewhere between wakefulness and slumber. (Pavlov, for example, maintained that cortical inhibition, sleep and hypnosis are essentially the same.) But hypnosis as a state resembling sleep is rapidly being discarded in the face of overwhelming experimental evidence to the contrary. Wells (29) and others have demonstrated that all hypnotic phenomena can be produced in a state bearing no resemblance to sleep, suggesting that the sleep-like aspects of hypnosis may be due solely to the hypnotist's suggestion that the subject will go to sleep. Bass (2) has shown that the patellar reflex, which disappears in sleep, is not diminished in hypnosis. EEG patterns of hypnotized subjects do not resemble the patterns of sleeping persons, except when true sleep is hypnotically induced.

There are many theories of hypnosis, but none satisfactorily account for the variety of hypnotic behavior seen in clinics, laboratories and in places of entertainment.



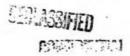
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In most modern theories of hypnosis motivation is a prominent feature, that is, a person enters trance because he wants to enter such a state. Trance is commonly induced in situations where the subject is highly motivated to cooperate with the hypnotist, either to obtain relief from suffering, to contribute to a scientific study, or (as in a stage performance) to become the center of attention. Almost all information currently available about hypnosis comes from these sources, and this must be kept in mind in any attempt to apply hypnosis in situations different from these.

Inducing Trance

In the days of Mesmer and James Braid, trance was induced by asking a person to fix upon some small, bright object -- a candle flame or a small pendulum. But before long, Braid and others concluded that hypnosis was not a matter of fixation, rather it was produced by the concentration that accompanied fixation. Still later, the explanation shifted once more. The key to hypnotic phenomena was not concentration after all, but suggestion. Today, in what is called the Standard Met od, fixation, concentration and suggestion are combined to induce a trance state. There are many variations of the Standard Method, but the ingredients are always the same: the subject focuses on a target object and the hypnotist, by word or gesture, communicates a series of "suggestions" to the subject. The subject need not even understand the language used by the hypnotist; in an extreme case some of the material may be totally irrelevant to the induction process, per se. Estabrooks, for example, once hypnotized a man using a phonograph recording of a Swiss yodeler. He was conducting a group demonstration of hypnosis by recording and accidentally selected the wrong record. As he explained it, the man expected to be hypnotized, was an excellent subject, and his imagination did the rest.

A more advanced technique, which also has its variations, is called Waking Hypnosis. In this method the hypnotist begins with simple waking suggestions and proceeds to





increasingly complex ones until the subject is in trance. Usually the subject is told to assume a relaxed position and to focus on some object. Suggestions about heavy lids, eye closure and the usual references to sleep are avoided.

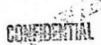
One form of Waking Hypnosis about which very little has been written is called the Sensorimotor Method. It appears to be the least structured of any method of trance induction, a free-form approach with the pattern of suggestions depending on cues from the subject. If, for example, the subject is a patient with a physical complaint, the hypnotist may use the patient's description of his symptoms as the starting point for hypnotic suggestion. The Sensorimotor Method, attributed to the psychiatrist Harold Rosen, demands exceptional skill of the hypnotist, but it appears to be a method that could be adapted to situations outside the clinic or laboratory.

Whatever the technique, the hypnotist's immediate objective is always the same: to place the subject in the deepest possible trance, the state that is commonly called sommambulism. In somnambulism the subject responds positively to a variety of complex suggestions. Catalepsy and rigidities, positive hallucinations (subject sees persons or objects that are not there), negative hallucinations (he fails to see persons or objects actually present), analgesia, anesthesia, and as a general rule, complete ammesia for events in hypnosis--these are the common manifestations of the state known as sommambulism.

Posthypnotic Suggestion

Most of the proposed uses of hypnosis in intelligence work, particularly the defensive applications, involve posthypnotic suggestion. Formerly, posthypnotic suggestion was considered a special characteristic of hypnosis, but hypnotists now operate on the assumption that it is a continuation of hypnotic behavior after an interval of time between training and response. The person receives the suggestion in

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trance and the suggestion takes effect sometime after the trance is terminated. It may be activated on a signal or after a specified period of time. Usually, the hypnotist induces ammesia for the posthypnotic suggestion by telling the person he will not remember the suggestion when he awakens.

Posthypnotic suggestion has been used therapeutically to help break undesirable habits or patterns of behavior: excessive drinking, excessive smoking, nail biting, overeating, and so on. Experimentally, a secretary taking shorthand was made to change pencils at predetermined (numbered) words by posthypnotic suggestion. Posthypnotic suggestion is also a common feature of hypnosis demonstrations. Typically, the subject is made to perform some comic and mildly embarrassing act some time after he has been dehypnotized.

Exactly what is involved in the execution of a posthypnotic suggestion is not well understood. Professionally, the most acceptable explanation is that the posthypnotic signal reactivates the original trance state for the duration of the behavior prescribed in the suggestion. Some hypnotists believe that the person is re-hypnotized only at the moment of the posthypnotic signal, and though he is fully awake thereafter, he cannot prevent the behavior called for by the hypnotist's suggestion.

How rapidly a posthypnotic suggestion "decays" has been the subject of some experimentation and any number of estimates by professionals in the field. The range of estimates is one month to five years, when the original suggestion is not reinforced. Conservatively, a posthypnotic suggestion is believed to remain effective for several months, and beyond this, for years, if periodically reinforced.

Self-hypnosis and Autosuggestion

Another method of hypnosis potentially useful in intelligence is self-hypnosis, also called autosuggestion. Most

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often, self-hypnoris is brought about by posthypnotic suggestion obtained in the usual "hetero" hypnotic relationship. The hypnotist implants the suggestion that hereafter the subject will be able to hypnotize himself on a signal that the hypnotist provides. The hypnotist is careful not to suggest a signal that could occur at random, thus triggering an unwanted trance state. He may tell the person: "Whenever you say the word 'yoga' three times in rapid succession, you will enter a deep state of hypnosis, even deeper than the one you are in now." This type of self-hypnosis is usually a part of psychotherapy treatment in which hypnosis is being used to correct faulty behavior. The suggestions are "programmed" for the patient and include warnings about excessive or careless use of self-hypnosis and a signal or time limit for ending the session. When the patient improves sufficiently, the posthypnotic suggestion for self-hypnosis is removed.

Because it requires the help of a hypnotist who never truly relinquishes control of his patient, this form of trance induction has been called pseudo self-hypnosis or mediated self-hypnosis. True self-hypnosis, or autosuggestion, dispenses with the need for even an absentee hypnotist. The individual may learn the technique from a professional, but beyond the initial program of instruction and guidance, he is free to devise his own suggestions and to modify them as the need may arise. No other person is necessarily involved in the content or specific use he makes of self-hypnosis.

Autogenic Training

By far, the best known method of autosuggestion is autogenic training, developed by the German psychiatrist, J.H. Schultz. Autogenic training--Schultz also calls it "self-relaxation through concentration"--is a graduated series of seven mental exercises evolved from standard hypnotic procedures. Schultz observed that in hypnosis by standard techniques subjects first feel heaviness in their limbs, followed by sensations of warmth. In autogenic

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training, the first two exercises, therefore, consist of suggestions to induce muscle relaxation (heaviness) and vasorelaxation (warmth); the remaining exercises deal with control of respiration, body functions, and so on. On the average, the seven exercises can be mastered in two or three months by practicing about five minutes at a time, three times a day.

Whether autosuggestion is hypnosis is a matter of some disagreement. Schultz occasionally uses autohypnosis synonymously with autosuggestion, but he does not dwell on the term. Autogenic training, if not actually hypnosis, has the following attributes of the hypnotic state: extreme relaxation, constricted awareness and heightened suggestibility. Schultz and his followers claim results essentially the same as those attributed to hypnosis: relaxation of tension, restoration of energy, improved voluntary performance, analgesia, and so on. Sportsmen, writers, opera singers, pianists and others whose professional activities require a high order of specialized performance are said to have benefited from autogenic training. Performance improves, apparently, while becoming less strenuous and exhausting.

Autogenic training emphasizes "passive concentration," that is, the immediate aim is to improve the functioning of all bodily systems without regard for specific complaints or the improvement of performance in a particular area or in a specific way. After reaching a state of "relaxed receptiveness" the subject then introduces suggestions related to his own requirements. With this preparation individuals have been known to cope with extreme and unexpected pain in a matter of seconds. The first suggestions are aimed at allaying the anxiety that accompanies the sensation of pain. When the suggestion takes effect, the individual knows the pain is still there, but it no longer matters. Within a minute, the sensation of pain is gone.

Until recent years, autosuggestion as a means of inducing hypnosis was largely unknown in this country. Though much has been written about it, particularly in German, the professional literature in English even yet contains little more than passing reference to the technique. In 1959,



Wolfgang Luthe, one of Schultz' disciples, published an English language version of autogenic training (24). Since then, the method has been studied seriously in this country by such authorities on hypnosis as J. G. Watkins, V. E. Faw and W. Wilcox. Their work thus far suggests that the extended training time can be shortened by eliminating some of the exercises and by more intensive training. In one case an individual intent on overcoming fear of swimming in deep water reached the state of relaxed receptiveness after only four days of intensive training.

Hypnotizability

Some people enter hypnosis -- or a state of hypersuggestibility -- easily, and others do not. An experienced subject can sometimes be put under by a mere word or gesture, while others cannot be hypnotized even though they consciously try to cooperate with the hypnotist. Operationally, it would be useful to know, both for reasons of defense and for possible offensive applications of hypnosis, who is susceptible to hypnosis and who is not. The professional literature on the subject is copious, but not very enlightening. A variety of physical and psychological measures have been used in the attempt to identify, by one approach or another, the "good" hypnosis subject. The sway test, the bucket test, TAT, Rorschach, intelligence tests, personality inventories, and so on--all have been tried, with generally indifferent results. Deckert and West (7), in trying to make scientific sense out of the accumulated information on the subject, found that the results of experiments were often contradictory, extremely tentative and largely meaningless. One experiment, for example, showed no relationship between hypnotic susceptibility and five personality traits, but did reveal a significant relationship between susceptibility and the social class rating of the occupation of the subject's father.

After reviewing some 200 sources on or closely related to the subject of hypnotizability, Deckert and West conconcluded that no one has demonstrated a significant or



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predictable relationship between susceptibility to hypnosis and age, sex, psychiatric diagnosis, personality factors or any other measure of human makeup. In the end they were forced to agree with hypnotists who say that the only way to determine a person's susceptibility is to try to hypnotize him.

Even so, there are "good" and there are resistant hypnotic subjects. The feeling persists that there is a certain elusive quality or combination of qualities that distinguishes the susceptible person. The "good" hypnosis subject becomes progressively more involved in the suggestion situation, participates more and more completely in it, and eventually becomes submerged in it. Stage hypnotists in particular. are credited with a certain pragmatic or intuitive understanding that helps them select the susceptible person. The scientist-hypnotist also seems to have ways of sizing up his subjects. Glasner (9) tells of Dr. Milton Erikson selecting subjects for a demonstration of hypnosis. "He was watching the people entering the hall and commenting on whether he thought they would be good subjects for the demonstration, judging by their stance, posture, walk, and so forth. And when he actually gave the demonstration, he made a point of calling certain individuals whom he had picked shead of time."

Among methods for determining suggestibility, some success has been claimed for the heat illusion test. The subject holds a heating element in his hand (or it may be attached to his forehead) and is then asked to rotate a calibrated dial until he just barely experiences heat from the contact. In a second try, he repeats the procedure, but unknown to the subject, the device is now disconnected. As he approaches the critical setting, the experimenter calls attention to the dial reading. If the subject again claims to feel heat, he is said to be suggestible and possibly a good candidate for hypnosis.

There are many estimates concerning the percentage of the general population that can be hypnotized. Claims vary between confident assertions that anyone can be hypnotized, to conservative estimates on the order of 25 to 40 per cent.



Wolberg (32) believes that perhaps 80 per cent of the people can be hypnotized but not more than 10 to 20 per cent will reach deep trance. This accords with an estimate by Fisher (12), who in a report on the potential uses of hypnosis in intelligence, says that a hypnotist using the technique most suitable to the situation can expect a batting average of one out of five cases of somnambulism; with actively resistant, suspicious subjects, he adds, the average may well be zero.

Hypnosis as an Operational Aid

The possibility that hypnosis has been used and even now is being used by opposition forces is quite real. There are a number of ways that hypnosis could be extremely valuable, particularly in extracting information and cooperation from an otherwise refractory source. But what seems theoretically possible by the extension of clinical and laboratory experiences with hypnosis can be applied practically in intelligence activities only if certain very real technical obstacles are overcome. Hypnotizing the source, with or without his awareness, is the fundamental and overriding problem. In a hostile setting, trance would have to be induced in a suspicious, even fearful, subject who has no reason to trust the motives of the hypnotist.

The Subject Unaware

Hypnosis has reportedly been effected without the subject's awareness in three situations—in sleep, in patients undergoing psychiatric consultation, and spontaneously in persons observing another subject being hypnotized.

The older literature is replete with references to sommambulistic hypnosis induced by giving suggestions to sleeping subjects in a low but insistent voice. No case records are cited to support these statements, however; and they appear, like many others in hypnosis literature, to have been carried over from one textbook to another

without critical evaluation. In a study by Barber (1) considerable similarity was found between subjects' compliance with suggestions given during sleep and their reactions to ordinary hypnotic techniques. Since Barber asked them for permission to enter their rooms at night and talk to them in their sleep, however, it is reasonable to assume that most if not all of them perceived that trance induction was his purpose. They cannot, therefore, be regarded as truly naive sleeping subjects. Casual experimentation by Orne failed to demonstrate that it is possible to hypnotize naive sleepers. The sample consisted of only four subjects, three of whom awakened to ask belligerently what was going on. The fourth just continued to sleep.

It is frequently possible for a therapist to perform hypnosis with the patient unaware. Advising the patient to relax, suggesting that he would be more comfortable with his eyes closed, and so on, the practitioner may induce a deep level of trance in a relatively brief period of time without ever using the term hypnosis. Even though the subject has not explicitly consented to be hypnotized, the relationship to the hypnotist, here a man of reputation and prestige, is one of trust and confidence, and the subject cooperates with every expectation of being helped.

Observers of hypnotic demonstrations may spontaneously enter trance. A psychotherapy patient went into trance while watching her therapist demonstrate hypnosis on television. This spontaneous hypnosis occurred in spite of the fact that the patient was in the company of friends and the occurrence was a source of embarrassment to her. But here again we are dealing with a subject in sympathy with the hypnotist who feels quite safe in the situation. Clinically, it has been observed that persons with negative attitudes about hypnosis are not susceptible to spontaneous trance.

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The Resistant Subject

In experiments by Wells (30), Bremman (6), and Watkins (25), subjects tried to prevent trance induction but were unable to fight it off. In each case, the subject was instructed to resist hypnosis, but always in the context of participating in an experiment to test this issue. In all three experiments, the subject had had previous trance experiences with the hypnotist and it is therefore reasonable to assume that a positive relationship existed between subject and hypnotist. Although it seems that a person cannot resist hypnosis -- at least experimentally where a positive relationship exists -- there is some question whether behavior in these experiments was the result of hypnosis, per se, or whether it was the result of what Orne has called "the demand characteristics of the experimental situation." It is clear that at some level any cooperative subject wishes an experi-ment to "work out," that is, he wishes to help fulfill the experimenter's expectations. If he grasps the purpose of the experiment or the bias of the experimenter, he is disposed to respond in a way that will confirm the experimenter's hypothesis. As Orne (20) has demonstrated, this is particularly true in a hypnotic relationship. He found that he could virtually predict the behavior of his subjects by deciding in advance to communicate, consciously but subtly, whether or not he expected them to comply with his instructions.

The many apparent cases of hypnosis without the person's awareness or consent all seem to have depended upon a positive relationship between subject and hypnotist. The most favorable situation is one in which the subject expects to benefit from his association with the hypnotist and trusts in the hypnotist and his ability to help. This situation is not likely to exist in an unfriendly setting. The possibility of using hypnosis would therefore seem to depend upon success in the slow process of murturing a positive relationship, or of resorting to specialized indirect techniques of trance induction that are not presently known to exist.







As long as an individual can remain suspicious and on guard, he probably could prevent hypnosis by simply diverting his attention from the hypnotist's activities.

Control of Behavior in Trance

There are cases on record, particularly among the German-speaking people, claiming hypnotically induced criminal behavior, mostly sex offenses. Frequently, the charges were brought not by the victim but by relatives of the victim. Since most of these cases occurred before the turn of the century, there is no longer any possibility of evaluating them scientifically. Within recent years, however, three documented cases in which hypnosis is said to have played a role in criminal behavior have been reported. These three cases have a common element: in each a dissatisfied person found gratification through the individual who later became his seducing hypnotist. It will be sufficient to examine one of them.

In the case reported by Kroener (18), a young and sensitive unmarried male schoolteacher came under the hypnotic influence of a neighbor. Beginning with neighborly hospitality, the neighbor built up the relationship to the point where he was able, by hypnotic suggestion, to get the schoolteacher to give or lend him small sums of money and goods. As a test of his power he then implanted the posthypnotic suggestion that the schoolteacher would shoot himself in the left hand. The schoolteacher actually did shoot himself in the left elbow and was convinced the shooting was an accident. Finally, the hypnotist caused his victim to confess to crimes that he himself had committed. Throughout the affair, lasting five years, the schoolteacher had no recollection of the hypnotic sessions. He was convicted on the basis of his posthypnotically induced confession, but through a chance remark began to suspect the nature of his relationship with his neighbor. After many appeals, he was recommended for examination by Kroener, who eventually uncovered the true course of events by rehypnotizing him and causing him to remember the hypnotic experiences with his neighbor.





It is evident that a case like this offers little encouragement for the extraction of sensitive material or gaining behavioral compliance under hostile conditions. An intense emotional relationship with the source finding gratification in obeying whatever requests are made of him is at best a remote possibility operationally.

Experimental

Most of the experimental work on this problem has focused on the more specific question of whether a person in hypnosis can be induced to commit some antisocial or self-destructive act. Here, again, the experimental evidence is highly contradictory. Young (35), for example, reports that subjects resist specific hypnotic suggestions if they have decided to do so in advance, while Wells (30) reports that none of his subjects were able to resist a prearranged unacceptable command or indeed any other.

By posthypnotic suggestion, Wells caused a subject to steal a dollar bill from the hypnotist's coat. The subject was unaware of his action and vigorously denied he had stolen the money. Wells argues that failure to compel such acts does not disprove the possibility of doing it, whereas even one success demonstrates that it can be done. Schneck and Watkins produced behavior through hypnosis that ordinarily would be regarded as criminal. Schneck (23) inadvertently caused a soldier to desert his duty in order to carry out a suggestion for posthypnotic action. Watkins (26) induced a soldier to strike a superior officer by suggesting that the officer was a Japanese soldier, and he obtained from a hypnotized WAC information classified Secret that she had previously told him she would not reveal

Two studies are frequently cited as evidence that hypnosis can be used to provoke behavior that is harmful to others or to the person himself. Rowland (22) asked two deeply hypnotized subjects to pick up a large, active diamondback rattlesnake. He told them the snake was a





coil of rope. One subject complied immediately, but was prevented from handling the snake by a pane of invisible glass. The other subject came out of hypnosis and refused to continue the experiment. The next two subjects attempted to grab the snake even when they were told what it was. Similarly, two subjects who were told to throw sulfuric acid at a laboratory assistant (protected by invisible glass) complied with the hypnotist's commands. By way of control, Rowland asked 42 persons to come to the laboratory and pick up the snake. With only one exception, all were frightened and refused to come near the box.

Young (35) replicated Rowland's study, asking eight deeply hypnotized subjects to carry out similar tasks. Seven out of eight subjects entered into situations that unhypnotized subjects shrank from, that is, they attempted to handle snakes and hurled acid under conditions from which they themselves recoiled in the waking state.

Most of the claims that people under hypnosis can be compelled to commit antisocial, repugnant or dangerous acts are based on this evidence. These cases are commonly cited in the press and in magazine articles, in books on hypnosis and in psychology texts, when they are concerned with hypnotic behavior.

While the results of these studies appear convincing, they have been challenged professionally by such hypnotists of note as the psychiatrist M. T. Orne. The first objection is that the situations are experimental, and hence contrived; that is, the acts are not truly antisocial or destructive in the real life meaning of these terms. The subjects know that the experimenters are responsible professional people, that they will not be asked to carry out tasks that have no meaning, and that no matter what the request may be, they will not suffer harm, either physical or social. This applies to the "real life" experiments of Schneck and Watkins as much as it does to the laboratory studies of Rowland and Young.

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Since both Schmeck and Watkins were Army officers, the offenses committed could not possibly result in any serious damage. At some level, the subjects must have been aware of this. This same reasoning applies in experiments requiring a person to steal, throw acid, or pick up a poisonous snake. The simple fact is, the experimental situation legitimizes a broad range of behavior that might otherwise be considered antisocial.

Orne (20) replicated the studies of Rowland and Young, using hypnotized subjects, subjects who faked hypnosis, and awake control subjects. To ensure that both hypnotized subjects and simulators received the same treatment and the same cues, these groups were run "blind," that is, the hypnotist in charge did not know who was hypnotized and who was faking hypnosis. Both groups complied with the commands of the hypnotist.

Orne carried his experiment a step further. Both Rowland and Young put strong pressure on their hypnotized subjects to comply with the requested antisocial acts, but did not exert similar pressure on either the control subjects or the hypnotized subjects when they were asked to perform the same acts in the waking state. When Orne put his group of waking control subjects under pressure to comply, they, too, performed the antisocial acts.

As an informal control group, faculty members were called in and treated as Rowland had treated his controls. The faculty members invariably refused to carry out even the least objectionable of the tasks. For the hypnotized subjects, the simulators, and the awake control subjects, the requests were reasonable and legitimate within the context of a scientific experiment. For the faculty members, who were not involved in the experiment and who had a different relationship with the experimenter, the requests were unreasonable.

Weitzenhoffer (27), in an evaluation of experimental evidence on this subject, cites six hypnotists of repute



who claim that antisocial behavior can be induced in hypnosis, and six others, equally reputable, who say it cannot. He found that success or failure to induce harmful behavior in the various studies seemed to depend upon whether the subject had been led to misperceive the situation. In short, a person who is told the rattlesnake is only a rope is likely to try to pick it up; if he is told it is a snake, he won't. Or, to take an operational example, a source might divulge information against his own best interests if he is tricked into believing that the interrogator is his case officer. Weitzenhoffer says that it is unlikely that a hypnotized subject can be compelled to commit acts harmful to himself or others by any intrinsic compulsive power hypnosis may possess, but it appears entirely feasible to do this by distorting his awareness in various ways. Be that as it may, Orne's work seems to demonstrate that misperception has no significance as long as the degree of control in hypnosis can be shown not to exceed the social and behavioral control that already exists in the experimental situation. The proposition, with or without deception, has yet to be tested under conditions where genuine harm could result.

In experiments not concerned with anti-social or selfdestructive behavior, subjects have at times demonstrated considerable independence. Beck (3) says that hypnotic subjects participate and discriminate selectively to the point of trickery and that most subjects show a high degree of volition in carrying out suggestions. Pattie (21), whose experiments concerned uniocular blindness induced through hypnosis, was fooled for months by a subject who easily and regularly achieved the deep trance known as somnambulism. "I had the naive idea that subjects under hypnosis carry out all instructions given unless the instructions are contrary to their moral principles or well-established tendencies. I thought that, since heightened suggestibility is characteristic of hypnosis, the subject would naturally be highly suggestible and therefore perfectly obedient . . In other words, she (the subject) lied and stuck to it."

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Accuracy of Recall in Hypnosis

A great deal has been written, especially in the press, about the perfect memory and unfailing accuracy of recall displayed in hypnosis. Statements have frequently been made about a person's ability to recall anything that has happened to him even as an infant, and according to some, even prior to birth. People who left their country of birth at an early age and were reared in another country often can speak, read and write the native tongue under hypnosis, although they have long ago "forgotten" it in the normal waking state.

Much of the experimental work in this area has concerned the recall of remote memories, and hypnotic ageregression is the mechanism most frequently used. The subject is "taken back" to, say, the age of six. He begins to act, talk, and to some extent, think in the manner of a six-year-old. He hallucinates the appropriate environment and gives details about people sitting next to him in school, his teacher's name, the color of the walls, and so on. His actions are exceedingly convincing, and it has frequently been assumed that an actual regression in many psychologic and physiologic age components to the suggested year takes place.

Even though there have been many studies of this type, there is little evidence for the genuineness of hypnotic age-regression. Young (33) demonstrated that performance on intelligence tests was not appropriate to the suggested age. Unhypnotized control subjects were more successful than subjects under deep hypnosis in simulating their age. Using the Rorschach test and drawings in a study of age-regression in ten subjects, Orne (16) demonstrated that while some regressive changes appeared, non-regressive elements were also present, and changes toward regression showed no consistency from subject to subject. The drawings did not resemble the work of six-year-olds, and as a leading authority on the picture drawing test stated, they amounted to "sophisticated oversimplification." Drawings actually





done at the age of six by one subject were available for comparison and there was not even a superficial resemblance. Subjects often gave with great conviction the name of the wrong teacher, one they had had at a later age.

In tests concerning physiological components of ageregression, electroencephalograms have failed to indicate any change in the direction of childhood EEG. Increased heart rate characteristic of infants or other changes, were not evident in electrocardiograph tracings. This kind of evidence has prompted some hypnotists to say that hypnotic age-regression is nothing more than role-playing with a will.

Experience in clinics has shown that hypnotic recall is by no means a straightforward process. What the patient reports is frequently a selection of several happenings rather than the intact recall of a single event. The patient will report phantasy as fact. He will distort. He will forget what he previously remembered and will avoid the emotional aspects of a memory. Therapists have found that there is a "telescopic" character to the memory of a hypnotized patient. Eventually, over a period of several sessions, the therapist pieces together the past in a series of reconstructions that finally result in recall.

Young (34) and Gebhard (13) in separate reviews of the literature nearly a quarter of a century apart, both concluded that nothing in the data confirms that specific remote memory patterns can be unfolded with precision through hypnosis.

Hypnosis does appear to offer some advantage in the recovery of recent memories. Gebhard, in summarizing psychological work on the recovery of recent memories, says it is clear that meaningful and emotionally stressed material is more readily available under hypnosis than in the waking state. Indifferent material (the learning of nonsense syllables, for example) is not. However, in either case recovery is not complete—there is always some loss, just as there is in normal recall processes.





It may be possible to increase the debriefing "take" by hypnotizing a cooperative source, but there would always be a risk of contamination by distortion and inaccuracies. Rather than open new vistas of recall, hypnosis may well provide the release that allows a cooperative source to fabricate the type of information he knows his interrogator wants to hear.

Hypnotic Veracity

Considerable less data are available on the veracity of information furnished in trance. Only one author, Beigel (4), (5), appears to have dealt with prevarication under hypnosis. Beigel insists that a person may lie, refuse to answer, or wake up when asked direct questions on sensitive matters. Orne (18) is convinced from long clinical experience that hypnotized subjects are capable of lying when they have reason to do so.

There are other hypnotists who agree that with present techniques of hypnotic induction, it is doubtful that a subject who does not wish to reveal information can be made to do so in hypnosis. Fisher claims that a "sixth sense of reality" continually operates in the hypnotic subject, and it is this special fringe contact that would very likely keep a hostile subject from submitting completely to his interrogators. Furthermore, he maintains, there is the possibility that the hypnotic state would enhance the subject's deftness in fabricating plausible but factually untrue material in response to the interrogator's pressures. The hypnotic subject is notoriously facile in inventing "memories" that may be acceptable to the hypnotist (10), (11).

All in all, it seems quite likely that information obtained through hypnosis could be deliberate prevarication or an unintentional confusion of fantasy and reality. The accuracy of information so obtained would need to be established by independent means.



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Defensive Uses of Hypnosis

Professional hypnotists have from time to time proposed that hypnosis could be used to strengthen the defenses of personnel captured or detained by hostile forces. They have proposed that hypnosis might be used to make personnel hypnosis-proof in event of capture, to induce ammesia for sensitive information, or to help them resist stress, particularly pain, in captivity. Success of these proposals would rely mainly on the astute use of posthypnotic suggestion.

It is common knowledge that a person can be trained in hypnosis to reject any subsequent attempt to induce trance. and he can be taught to simulate trance or to respond inappropriately whenever he is being used by another hypnotist. This type of training might be justifiable operationally if there were good evidence that a truly resistant person in a hostile setting can be hypnotized. The fact remains, there are no cases -- at least in the open literature -- of resistant subjects hypnotized in unfriendly circumstances. Hypnotic reinforcement might be an advantage in certain cases, as for example, where there is reason to believe that hypnosis will be used and the subject is not confident he can resist it successfully. This type of conditioning might help offset the psychological effects of drugs, where drugs and hypnosis are combined. One risk is that the very process of "proofing" a person against hypnosis may actually lower his resistance to trance induction. It is an accepted fact that a person once hypnotized is more prone to trance induction thereafter.

Providing by hypnotic suggestion for ammesia upon capture is an intriguing idea, but here again there are technical problems. It is well known that the effectiveness and permanence of hypnotic suggestion is directly related to the concrete definition of a specific task. General suggestions such as blanket ammesia have unpredictable effects even on very good subjects. Moreover, even if it would work to suggest that the person remember only



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certain unsensitive items of information, there is serious question whether this might deprive him of information vital to him during detention. It would artificially induce a state of severe psychopathology that could be extremely disturbing. The restriction on his ability to remember and to retain complete control of his faculties might lead to a quasi-therapeutic relationship in which the person turns to the interrogator for "treatment" to relieve his distress.

This method has other serious drawbacks. The person's ability to plan an escape, to cover himself, or to maneuver in general would be severely restricted. It would seem far safer to allow the individual to decide for himself what he should not reveal and how best to prevent disclosure.

Conditioning individuals not to feel stress, particularly pain, would seem to hold promise of protecting them when detained by hostile forces. Laboratory experiments have shown that, although subjects under hypnotic analgesia continue to respond physiologically much as they do in the waking state, they do not report experiencing pain. It appears that hypnosis works best in situations of high anxiety and probably has its major effect on the anxiety component of pain.

Such a procedure might be undertaken in particular instances, but probably is not feasible as a general practice. Only a relatively small number of individuals will enter a sufficiently deep somnambulistic state to produce profound analgesia. There are on record no instances of major surgery undertaken during posthypnotically induced analgesia. Thus while analgesia for pain quite possibly can be induced posthypnotically, there is nothing in the history of hypnosis to indicate how reliably this can be done.

Even if it could be done, what type of suggestion should be given? The posthypnotic suppression of all pain might be

This "analgesic" effect has been demonstrated in studies where anxiety was removed by means other than hypnosis.

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dangerous to the individual, since pain serves as a physiological warning signal; and it is doubtful that such a blanket suggestion would be effective anyway. It would be better to suggest that no pain will be felt at the hands of captors. Even this suggestion, however, would rapidly break down if the captured subject felt any pain at all, as is likely in all but a very few instances. A person taught to rely on hypnosis as an analgesic and who finds it ineffectual in certain situations might be considerably worse off than if he had not trusted this device in the first place.

Defense by Autosuggestion

The defensive possibilities of autosuggestion are fairly apparent. It probably could be tried in any situation that lends itself to defense by posthypnotic suggestion, with the added advantage that the individual does not surrender personal control of his behavior. With training in autosuggestion, personnel should be able to postpone and temporarily alleviate the disabling effects of hunger, thirst or fatigue, as well as the devastating effects of long isolation. Some stress might be avoided by inducing long periods of sleep, or by using the technique of time distortion, "telescoping" long periods of detention into subjectively experienced shorter periods. A kind of social interaction could be sustained in solitary confinement by creating a phantasy world of people and things through autosuggestion. There is on record the case of a prisoner of war who effectively retained his hold on reality by constructing a phantasied house, board by board, nail by nail.

Neither posthypnotic suggestion nor the technique of autosuggestion has been tried under conditions of true jeopardy. The professional hypnotist, in rare instances when he discusses the possible applications of hypnosis in situations outside the clinic or laboratory, favors posthypnotic suggestion, quite possibly because it is a mechanism with which he has had some experience. He has no way of knowing whether his suggestions would be nullified

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by fear and unrestrained coercion. Autosuggestion, like posthypnotic suggestion, is untested, and not as well understood. It offers the advantage of allowing the person to adapt his defenses in response to real rather than predicted situations. It may not strengthen the defense posture, but it is also less likely to weaken it.

Hypnosis and Drugs

Drugs have been administered in the clinic to reduce patient resistance to hypnosis, and to some extent, they have been tested experimentally to determine their effects on suggestibility. Almost invariably the drugs used have been depressants, mainly the barbiturates. Depressant drugs induce relaxation and relaxation is generally believed to enhance suggestibility. Weitzenhoffer (27) claims that subanesthetic doses of various anesthetic drugs make subjects more suggestible, provided the subject possesses initially a modicum of suggestibility. In other words, these agents do not create suggestibility where there is none to begin with.

Wolberg (32) reports good results with sodium anytal administered slowly, intraveneously in sub-anesthetic doses. The drug, he says, brings on feelings of helplessness in the patient while arousing "archaic dependency feelings toward the operator." He claims that a resistant patient, placed under the influence of drugs and given specific and detailed instructions about every aspect of trance induction, would thereafter be susceptible to hypnosis. But in the context that Wolberg refers to, "resistant" means a patient who wants to cooperate with the hypnotist but is emotionally unable to do so. He is careful to point out that the technique would not succeed if the patient is in a state of hostile resistance.

Hypnosis with the aid of drugs is said to create a "more directed relationship," which suggests that the usual high rapport between subject and hypnotist may not be as critically important where hypnosis procedures are combined with drugs. While drugs might be an effective

means of dissolving true resistance in a truly hostile situation, no professional is on record saying that they will. Significantly, hypnotists who have proposed the use of hypnosis in warfare and in intelligence, never mention the possible use of drugs.

Dangers of Hypnosis

There are two types of dangers commonly associated with hypnosis. The first is the very legitimate concern of the medical profession that an unskillful hypnotist may produce or aggravate anxieties or other emotional disturbances.

The second type of danger seems more a source of concern to laymen than to the professional. This is the notion that a hypnotist may not be able to bring his subject out of trance. The general professional belief is that the subject will always awaken. Even in cases where the subject refuses to obey the command to awaken, a skillful hypnotist can easily learn why the subject is refusing and then work around the person's resistance. Where a trance persists for an extraordinarily long time, say for days, it is likely that the hypnotist has used suggestions specifically intended to prolong the trance.

In an experiment to test how long subjects would remain hypnotized, a group of persons in trance was deliberately abandoned by their hypnotist. Within three or four hours, all subjects were out of trance, most of them within the first hour. Actually, though no satisfactory data are available on it, the general belief is that hypnosis cannot be prolonged for great lengths of time without periodic additional suggestions for prolonging the trance.





CONCLUSIONS

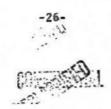
The use of hypnosis in intelligence would present certain technical problems not encountered in the clinic or laboratory. To obtain compliance from a resistant source, for example, it would be necessary to hypnotize the source under essentially hostile circumstances. There is no good evidence, clinical or experimental, that this can be done. Clinically, the resistant subject is someone who is willing to be hypnotized but for psychological reasons is unable to enter trance; in the laboratory, he is a subject who is instructed to resist trance and who suffers neither guilt nor penalty if he fails to do so. In no case is he guarded, suspicious or fearful. Hypnotists who have proposed that hypnosis could be used in intelligence agree that indirect methods of trance induction would be needed. They fail to say what methods could be used operationally. The usual indirect methods would strike a suspicious subject as transparent subterfuge. They include suggestions about relaxation and easing of tension, or the subject is asked to witness trance induction in someone else, or he is asked to role play or pretend hypnosis until he can actually enter trance. These methods seem to have little application operationally. Hypnotists who have evaluated proposals for the use of hypnosis in intelligence have been frank to say there are no known methods for inducing trance in the hostile but unaware subject and that it seems unlikely that an antagonistic subject can be hypnotized against his will.

Disregarding the difficulties of inducing trance, there is still little assurance that a source can be made to act against his own best interests. A hypnotized subject, even when motivated to be cooperative, often distorts, invents memories, fabricates and otherwise contaminates his output. The more anxious he is about the information, the more likely he is to distort, as a means of defending. He is apt to tell the hypnotist what he wants to hear, whether or not it is related to fact.

Hypnosis as a defensive measure presents no insurmountable technical problem, but neither is there assurance that posthypnotic suggestion or self-induced suggestion would be effective. In posthypnotic suggestion, whether or not it breaks down under coercion, there is a definite risk of disabling the individual and increasing his vulnerability. With self-induced suggestions, because the individual retains control of his behavior, there would seem to be less chance of jeopardizing the defense posture, if the suggestions should prove ineffective.

Apart from such technical problems as producing trance under hostile conditions, the potential application of hypnosis to intelligence is hampered by the absence of hard facts. It would be difficult to find an area of scientific interest more beset by divided professional opinion and contradictory experimental evidence. Professional views are divided on virtually every fundamental issue pertaining to hypnosis. No one can say whether hypnosis is a qualitatively unique state with some physiological and conditioned response components or only a form of suggestion induced by high motivation and a positive relationship between hypnotist and subject. With high motivation and a positive relationship, T. X. Barber has produced "hypnotic deafness," "hypnotic blindness," analgesia and other responses seen in hypnosis -- all without hypnotizing anyone. He asked well motivated subjects simply to disregard certain types of stimuli. Orne (19) has shown that unhypnotized persons can be motivated to equal and surpass the supposed superhuman physical feats seen in hypnosis, and he has caused unhypnotized experimental control subjects to persist in an action longer than subjects performing the same acts under posthypnotic suggestion.

Hypnotic trance, an increasingly elusive term, is no longer considered requisite for inducing hypnotic behavior. Subjects can pass from the waking state into hypnosis without feeling any different and without signs of change discernible to an observer. Weitzenhoffer (27), trying to



explain how one knows he has been hypnotized, says that there is no completely satisfactory or unique answer, since different people experience hypnosis in different ways. Even the expert cannot always tell that what he is witnessing is actually hypnosis. Experienced hypnotists have been fooled by simulators, even so-called "naive" simulators who have never been hypnotized nor had training in faking hypnosis.

As for obedience in trance, hypnosis seems not to be the instrument of absolute control that is so often depicted by the press, in popular periodicals and in fiction. Apart from instances of apparent "sixth sense" volition already mentioned, one can cull from professional writing on hypnosis such statements as: hypnotized persons are anything but blind automatons; they are capable of considerable independence of judgment; and they are neither defenseless nor passive. On the basis of the kinds of evidence that Barber, Beck, Orne, Pattie and others present, it seems that a determined and informed person could resist willful manipulation by an adversary, before and during hypnosis.

In the absence of tests under operational conditions, it is difficult to evaluate the potential of hypnosis in intelligence work. Proposals for the use of this technique are immensely appealing, but they are untried and therefore highly speculative. The bridge between clinical-experimental hypnosis and possible operational uses is yet to be built. It is probably significant that in the long history of hypnosis, where the potential application to intelligence has always been known, there are no reliable accounts of its effective use by an intelligence service.



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