THE INFLUENCE OF HYPNOTIC SUSCEPTIBILITY ON
DEPTH OF TRANCE USING A DIRECT INDUCTION
AND A METAPHORICAL INDUCTION TECHNIQUE

DISSertation

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

James B. Grotts, M.A.

Denton, Texas
August, 1985
Grotts, James B., *The Influence of Hypnotic Susceptibility on Depth of Trance Using a Direct Induction and a Metaphorical Induction Technique*. Doctor of Philosophy (Counseling Psychology), August, 1985, 67 pp., 5 tables, references, 64 titles.

To test the hypothesis that a metaphorical technique would be more effective than a direct technique to induce hypnosis, 60 volunteers from students at North Texas State University were divided into high- and low-susceptible subjects by the Harvard Group Scale of Hypnotic Susceptibility. They were randomly assigned to direct and metaphorical induction groups and to a control group, with 10 high- and 10 low-susceptible subjects in each group. After hypnosis they completed the Field Inventory of Hypnotic Depth, and their mean scores were subjected to an analysis of variance and a Newman-Keuls test. Neither method of hypnotic induction was found more effective than the other, although both were effective when compared to a control group. It was also found that subjects who expected to be able to experience hypnosis were no more likely to be hypnotized than those who expected not to be able to experience hypnosis. Finally, it was found that low-susceptible subjects were as likely to respond to a post-hypnotic suggestion as high-susceptible subjects.
**LIST OF TABLES**

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency Data from the FIHD</td>
<td>26</td>
</tr>
<tr>
<td>2. Analysis of Variance</td>
<td>27</td>
</tr>
<tr>
<td>3. Newman-Keuls Test</td>
<td>28</td>
</tr>
<tr>
<td>4. Data from Expectancy Questionnaire</td>
<td>29</td>
</tr>
<tr>
<td>5. Frequency Data for Post-Hypnotic Suggestion</td>
<td>31</td>
</tr>
</tbody>
</table>
THE INFLUENCE OF HYPNOTIC SUSCEPTIBILITY ON
DEPTH OF TRANCE USING A DIRECT INDUCTION
AND A METAPHORICAL INDUCTION TECHNIQUE

Hypnosis has been traditionally thought of as an altered
state of awareness or consciousness (Crasilneck & Hall, 1975;
Hilgard, Atkinson, & Atkinson, 1975). This altered state is
often referred to as an hypnotic trance (Houston, Bee, & Rimm,
1983). As Bowers (1966) pointed out, "most investigators
interested in hypnosis believe that there is an hypnotic state
which fundamentally differs from the waking state" (p. 42).

This phenomenon known as hypnosis can be traced back, in
one form or another, to the beginning of recorded history
(Korger & Fezler, 1976). Hilgard (1968) noted that "hypnotic-
like states were described by the ancients" (p. 3), and that
"the early origins are shrouded in mystery and magic" (Hilgard
& Hilgard, 1975). Until about two centuries ago, hypnosis
was associated with primitive religious rites (Kroger &
Fezler, 1976).

The modern practice of hypnosis within a medical context
began with Franz Anton Mesmer (1734-1815), an Austrian physi-
cian who was most prominent in Paris (McConnell, 1983).
According to Hilgard & Hilgard (1975), Mesmer was appointed
by the Prince-Elector Max Joseph of Bavaria to discredit a

1
Catholic priest, Father Gassner, who was creating a sensation through rites of exorcism. After some experimentation, Mesmer was able to obtain results similar to those of Father Gassner through "naturalistic" methods. By 1775, the exorcist had been discredited and Mesmer was a sought-after healer.

Unfortunately, however, Mesmer believed that "animal magnetism" was responsible for his power to heal. A dramatic showman, Mesmer would seat his patients in a large tub filled with water and iron filings and have them hold onto an iron rod while he walked around them in an elegant silk robe waving a "magnetic wand" to "equalize energy" (Crasilneck & Hall, 1975; Hilgard & Hilgard, 1975). Mesmer fell into disgrace after a committee of inquiry appointed by the king of France issued an unfavorable report on "mesmerism" in 1784. Hypnosis did not die, however.

John Elliotson, an English surgeon, performed numerous surgical operations in the early 19th century, using "mesmeric sleep" for pain control. In 1846, James Esdaile, a Scottish doctor who practiced in India, reported on 345 major operations which he had conducted using mesmerism as anesthesia. However, ether was introduced in 1846 and chloroform in 1847. Such chemical anesthetics soon replaced hypnosis among surgeons (Miller, 1979).

James Braid, an English physician and surgeon, rescued hypnosis from oblivion in the mid-19th century. It was he who coined the term "hypnosis," taking the name from the
Greek word hypnos, which means "to sleep" (Miller, 1979). Braid divorced himself completely from mesmeric theories of hypnosis, relating it instead to "nervous sleep" (Hilgard & Hilgard, 1975). Braid was not a controversial figure, and he worked within the medical profession, so his views were taken seriously, and the use of hypnosis slowly grew.

By the end of the 19th century hypnosis had once again gained popularity in France. Jean Martin Charcot, a distinguished teacher of neurology at the Salpetriere in Paris, experimented with hypnosis and influenced such prominent persons as Sigmund Freud and Pierre Janet. However, Charcot was convinced that hypnosis was pathological and worked primarily with hysterical personalities. A controversy arose between Charcot and Hippolyte Bernheim, another medical school professor in Nancy, France. Bernheim worked with A. A. Liebault, a medical practitioner who was very successful in the use of hypnotherapy. They asserted that suggestibility was the primary factor underlying hypnosis. The Bernheim-Liebault theory of suggestibility eventually carried the day, and it is the viewpoint held by most practitioners today (Hilgard, 1968).

In the United States, the popularity of hypnotherapy appears to have grown out of investigations of hypnosis by Clark L. Hull during the 1920s. One of Hull's students at the University of Wisconsin was an undergraduate student of psychology named Milton H. Erickson. After observing a
demonstration of hypnosis by Hull in 1923, Erickson began to experiment on his own. He took courses under Hull, and his experiments in hypnosis became the subject of a graduate seminar later taught by Hull. Erickson went on to become a medical doctor who practiced psychiatry. Hypnosis was his first love, however, and in later years he limited himself to the practice of hypnotherapy (Haley, 1967).

Rossi, Ryan, and Sharp asserted that "until Erickson came on the scene, the whole field of clinical hypnosis had been in abeyance. There just weren't that many professionals using it" (1983, p. 38). Erickson is said to have hypnotized more than 30,000 subjects during his lifetime (Lankton & Lankton, 1983). He drew many disciples from the fields of psychology, psychiatry, medicine, and dentistry, and under his influence hypnotherapy moved from obscurity to prominence in the areas of psychology and medicine.

Some of the signs of acceptance of hypnosis within the U.S. include the following: (a) the founding of the Society for Clinical and Experimental Hypnosis in 1949; (b) the establishment of the American Society for Clinical Hypnosis in 1957; (c) the recognition of hypnosis as a legitimate treatment method by the American Medical Association in 1958; and (d) the creation of a division concerned primarily with hypnosis by the American Psychological Association in 1969. According to Kraft and Rodolfa (1982), nearly half of the general membership of the American Psychological
Association have some training in hypnosis. During the past 35 years, hypnosis has become an accepted tool for both medical and psychological use within the United States.

Two hundred years ago, Mesmer touted hypnosis as a universal panacea for all human ills (Miller, 1979). Since that time, it would appear that virtually every human illness has been treated by hypnosis. Kroger and Fezler (1976) described the treatment of sexual problems, habit problems, neuroses, and psychoses by hypnosis. Psychosomatic illnesses reported to have been successfully treated by hypnosis include migraine headaches (Cedercreutz, 1978; dePiano & Salzberg, 1979), ulcers (Zane, 1966), hypertension (Diabler, Fidel, & Dillenkoffer, 1973), and asthma (Collison, 1978). Ulett and Peterson (1965) stated that "there is almost no surgical procedure that cannot be done under hypnoanesthesia" (p. 80). They also noted the widespread use of hypnosis in dentistry. Sacerdote (1978) reported a 90 percent success rate in the use of hypnosis for the management of chronic pain. Ewin (1978) and Schafer (1978) both reported hypnosis to be effective in treating burn victims. The sheer volume of individual studies and case reports using hypnosis to treat various medical and psychological disorders is overwhelming. The reader is referred to Crasilneck and Hall (1975) for a discussion of the use of hypnosis in treating numerous illnesses. Certainly hypnotherapy has become firmly established as a therapeutic tool to aid in the treatment of many human ills.
One of the problems with using hypnotherapy, however, has been that not all subjects appear to be equally susceptible to hypnotic induction techniques. That was one of the reasons why Freud turned from hypnosis to "free association" in working with his patients (Lankton & Lankton, 1983). The problem of non-susceptible individuals still plagues practitioners today. Clarke and Jackson (1983) have pointed out that "when conventional hypnotic procedures are applied in the standard way, some individuals will respond and others will not" (p. 39). The degree to which individuals respond to hypnotic induction techniques is referred to as "hypnotic susceptibility."

Perry, Gelfand, and Marcovitch (1979) reported that studies have shown that approximately 10 to 15 percent of all individuals are highly susceptible, 10 to 80 percent are somewhat susceptible, and 10 to 15 percent appear not to be susceptible to hypnotic induction techniques.

Several scales have been developed to assist researchers in measuring hypnotic susceptibility. Among the more popular are (a) the Harvard Group Scale of Hypnotic Susceptibility (Shor & Orne, 1962); (b) the Hypnotic Induction Profile (Spiegel & Bridger, 1970); (c) the Stanford Hypnotic Susceptibility Scales: Forms A and B (Weitzenhoffer & Hilgard, 1959) and Form C (Hilgard, 1978); and (d) the Stanford Hypnotic Clinical Scale: Adult (Morgan & Hilgard, 1979).
There are those, however, who dispute the claim that not everyone is susceptible to hypnosis (Barber, 1980; Erickson, 1965). In fact, Milton H. Erickson is reported to have said that "all patients can go into a trance state—anyone can" (Rosen, 1982, p. 63). Those who make such claims assert that hypnotic susceptibility is not a trait of the subject, but rather is a function of the relationship between the therapist, the subject, and the language (Barber, 1980; Reyher & Wilson, 1973).

Clark and Jackson (1983) have described the steps involved in moving from the normal to an altered state of consciousness, i.e., an hypnotic trance:

(1) a reduction in anxiety; (2) a reduction in arousal; (3) a fixed . . . attention leading to a reduction in the patterning of sensory input and a restriction in the number of sharp sensory gradients; (4) the production of behavioral immobility or inertia; (5) a shift in cognitive functioning toward concrete thinking and away from critical reflection; (6) a transfer of perceived control over the person's reactions such that they appear less voluntary and more under the control of the words of the hypnotist (p. 31).

Clarke and Jackson (1983) take the position that "hypnotizability can be modified" (p. 58). If this is true, then, in theory at least, there would seem to be no reason why any cooperative person could not learn to achieve an
hypnotic trance. In fact, even a non-cooperative person could be led, step by step, into an hypnotic trance if a way could be found to meet the criteria listed by Clarke and Jackson.

The premise that hypnotizability can be modified seems to be confirmed by Crasilneck and Hall (1975), who have written that

One of the most important factors in the success of hypnotherapy is the patient's unconscious motivation. . . When the patient's conscious and unconscious motivation are both high, success in hypnotherapy is most likely. . . We have often observed clinically that unconscious motivation and hypnotic susceptibility increase with the severity of the illness and the need for relief (pp. 41-42).

In one of the first empirical studies to test the claim that low-susceptible persons can be hypnotized, Hamilton (1983) used an indirect hypnotic induction technique, the confusion technique, to induct low-susceptible subjects into an hypnotic trance. While the traditional direct induction techniques only worked well with high-susceptible subjects, both high-susceptible and low-susceptible subjects responded well to Hamilton's confusion technique. Hamilton appears to have confirmed that low-susceptibility is not an insurmountable barrier to achieving an hypnotic trance. He appears also to have demonstrated that the hypnotic susceptibility scales may
only measure susceptibility to direct induction techniques and not susceptibility to indirect techniques such as the confusion method. Hamilton's study would appear to provide a mandate for further research into this matter.

The confusion technique utilized by Hamilton, like virtually all of the indirect induction techniques, was developed by Milton H. Erickson (Erickson, Rossi, & Rossi, 1976; Gilligan, 1982). Much of Erickson's work, however, was in the realm of the metaphor (Gordon, 1982), and it is this field of study which appears most ripe for empirical study.

Erickson was a story-teller. He would say to a patient, "Now I am going to give you a story so that you can understand better" (Lankton & Lankton, 1983, p. 70). He would then spin a yarn which was therapeutic for his patient. And he liked to devise different stories for different patients. Margaret Mead is reported to have commented that "Erickson never solved a problem in the same old way if he could think of a new way" (cited by Lankton & Lankton, 1983, p. 15). The number of stories he told appears innumerable. All of Erickson's disciples who wrote about him delighted in relating one or more anecdotes from their mentor (Bandler & Grinder, 1975; Gordon & Myers-Anderson, 1981; Haley, 1973; Lankton & Lankton, 1983; Zeig, 1982). In fact, Sidney Rosen (1982) has edited a collection of stories subtitled The Teaching Tales of Milton H. Erickson. And Rosen's collection does not begin to exhaust Erickson's tales.
Erickson, however, was a clinician and not a researcher (Zeig, 1982). His work, extensive as it was, was reported in anecdotal fashion. According to Hurley and Lopez (1983), there is a "lack of empirical support for the use of metaphor" (p. 4). A computer search of the Psychological Abstracts, Sociological Abstracts, and the Educational Resources Information Center (ERIC) verified the assertion of Hurley and Lopez. Empirical studies of Erickson's metaphorical hypnotic induction techniques are lacking. It was the purpose of this study to investigate the use of metaphor in hypnotic inductions. Specifically, a comparison was made between a traditional direct hypnotic induction technique and an Ericksonian metaphorical hypnotic induction technique.

The primary difference between the traditional direct methods of hypnotic induction and Erickson's indirect methods, such as the metaphorical technique, is the different level of consciousness toward which they are directed. A standard direct induction would be directed toward the conscious mind and would consist of 10 to 20 minutes of repetitive suggestions, usually telling the subject to relax some 40 or 50 times (Gilligan, 1982). If the subject is susceptible to hypnotic suggestions, this will eventually lead to an altered state of consciousness. Erickson, on the other hand, liked to work outside of awareness (Haley, 1981). According to Rossi:
Erickson's approaches to inducing trance and problem solving are usually directed toward circumventing the rigid learned limitations of the patient's conscious and habitual attitudes. To implement this goal of freeing unconscious potentials from the limitations of consciousness, Erickson pioneered the indirect approaches to hypnotic suggestion. These approaches are in marked contrast to most previous work in hypnosis, where direct suggestions were considered the most therapeutic modality (Erickson, Rossi, & Rossi, 1976, p. 18).

Erickson is reported to have defined "deep hypnosis" as that level of hypnosis that "permits the subject to function adequately and directly at an unconscious level of awareness without interference by the conscious mind" (Haley, 1967, p. 13). He viewed the unconscious as "a repository of all learning and experience" containing "information that exceeds what is usually available to awareness" (Beahrs, 1982, p. 65). He believed that hypnosis was merely a tool to aid in unlocking the knowledge contained in the unconscious mind. According to Carter:

Milton's favorite way of stating this idea was, "Your conscious mind is very intelligent, and your unconscious mind is a hell of a lot smarter than you are." The prerequisite of all of his hypnotic techniques, and particularly his dissociation techniques, was his trust that the unconscious knows what is best for a person,
Erickson described the unconscious mind as "a vast reservoir of learning," stating that All of you think that when you work with hypnosis you need to devise it and work with it as a means of communicating this or that idea to the patient. I think you ought to recognize that the unconscious of the human being is a rather comprehending thing. . . I think that when you use hypnosis in the handling of patients and in the treatment of various conditions, you ought to rely upon that vast reservoir of learning that the unconscious mind has (Rossi, Ryan, & Sharp, 1983, pp. 65-67).

In discussing the purpose of hypnosis, Erickson emphasized the following point:

You've got to realize that your purpose in using hypnosis is not to effect magic. Your purpose in using hypnosis is to communicate ideas and understandings and to get the patient to utilize the competencies that exist within him at both a psychological level and a physiological level (Rossi, Ryan, & Sharp, 1983, p. 76).

Erickson did not believe that formal hypnotic induction procedures were necessary to facilitate his patients in utilizing their unconscious knowledge. He said that "therapeutic suggestions may be indirect, interspersed in an
ordinary conversation or in an interesting tale" (Rosen, 1982, p. 27). He considered such procedures to be an art, stating that "the art of offering hypnotic suggestions in such fashion that the subject can accept them and then respond to them is difficult to explain" (Haley, 1967, p. 51). He was especially dubious about standardized techniques of hypnotic induction (Haley, 1967).

According to Gordon (1978), most of Erickson's later hypnotic work was based on the use of metaphor. A metaphor is a figure of speech based on similarity or analogy (Mooij, 1976). It is distinguished from a simile in that a simile uses words such as "like" or "as" to point out a resemblance (Liddell, 1964) whereas in a metaphor the resemblance is implied but unstated (Miles, 1964). As used in Ericksonian hypnosis, a metaphor is a story told to aid patients in solving their problems (Hurley & Lopez, 1983). Adams and Chadbourne (1982) have stated that "a therapeutic metaphor is a use of this figure of speech in a way that lets clients recognize themselves, their problems, and possible new alternatives in a nonconfrontive and nonthreatening way" (p. 510).

Lankton and Lankton (1983) have summarized Ericksonian metaphors in the following passage:

A metaphor is a figure of speech that makes an implicit comparison between two unlike entities. You may recall that the use of "like" and "as" in making comparisons
will create a simile. For the purposes of Ericksonian communication, we do not need to rigorously make distinctions between these figures of speech. Nor are the technical differences between stories, anecdotes, and metaphors of concern to us... We will consolidate these various forms in the category of metaphor. The distinction between simile and metaphor is not qualitatively different (p. 78).

Erickson was the consummate story-teller, but his stories were more than simple analogies. An anecdote would be designed to be isomorphic with the client's problem; that is, it would be similar in structure or shape. For example, a dieter might be told a story about fuel for an automobile. Isomorphism would exist between fuel for the automobile and food for the dieter (Gordon, 1982). However, Erickson believed that the parallel between the client's problem and the isomorphic elements of the metaphor should not be apparent. He would quickly change the subject of what he was saying if he suspected that his client was becoming aware of the parallel (Haley, 1981).

One of Erickson's most famous metaphors, which illustrates the principle just discussed, was his "tomato plant story" told to Joe, a terminally ill cancer patient. Erickson was asked to use hypnosis to assist Joe in finding relief from pain, since narcotics no longer provided such relief. The problem was that Joe hated even the mention of the word
Erickson told Joe an extended metaphor about the growing of tomato plants, embedding within the metaphor many post-hypnotic suggestions about comfort. Joe went into trance while Erickson was telling his tale, and he obtained relief from pain for the three months he lived following Erickson's intervention (Bandler & Grinder, 1975; Erickson, 1966; Gordon, 1982).

Erickson believed that hypnosis, whether induced formally or through metaphor, worked by stimulating an unconscious search for meaning within the mind of the subject (Lankton & Lankton, 1983). Erickson described his goals thusly:

I prefer a psychological startle technique wherein the patient wonders, "What is he driving at?" Here the mind is wide open for new understandings. . . . The startle technique is simply a matter of asking patients to think about something or to do something that leaves their minds wide open. What is the idea? You've got them searching for an understanding, which is precisely what psychotherapy is about--accepting new ideas and new understandings (Rossi, Ryan, & Sharp, 1983, pp. 213-214).

According to Rosen (1982), "in helping the patient to enter a trance the therapist captures the patient's attention and directs it inward, leading him to an inner search" (p. 27). Bandler and Grinder (1975) refer to this inner search as "transderivational search" in which "the client generates the
meaning which is maximally relevant for his ongoing experience" (p. 222). In this transderivational search the client "makes meaning for himself" (p. 230).

In summary, then, traditional hypnotic induction techniques typically consist of repeated suggestions to the client to relax. If the client is susceptible to the power of suggestion, then he or she will eventually be lulled into an hypnotic trance in which suggestibility is heightened even more. While the subject is in the trance suggestions can be given which should alter his or her patterns of behavior. The difficulty results from the fact that different people are susceptible to hypnotic suggestions in different degrees, and some appear not to be susceptible to direct induction techniques at all.

Ericksonian hypnotic induction techniques take a different approach, however. Rather than give direct suggestions to the subject, Ericksonian methods are designed to work indirectly. Suggestions are embedded within metaphors or other verbalizations in such a way that no resistance is encountered. While the subject is searching for the meaning of the hypnotist's remarks, he or she is led into an hypnotic trance. While in the trance, he or she is given further disguised suggestions to effect a change in behavior. Such indirect methods as Erickson used do not depend on the subject's susceptibility to suggestion in order to be effective.
While there is much clinical evidence of the effectiveness of Ericksonian methods, little empirical evidence has been produced. Therefore, a research project was undertaken to test an Ericksonian-style metaphorical hypnotic induction technique to determine if it would produce greater depth of trance than a traditional direct hypnotic induction technique when both were applied to low-susceptible subjects.

The hypothesis of this study was that both direct and metaphorical hypnotic induction techniques would work similarly well in producing an hypnotic trance in high-susceptible subjects, but that a metaphorical technique would be significantly more effective than a direct technique in producing an hypnotic trance in low-susceptible subjects.

The rationale for believing that both direct and metaphorical hypnotic induction techniques would work similarly well in producing a measurable trance in high-susceptible subjects was based on the intuitively-evident belief that the more susceptible a person is to the power of suggestion, the less important it is how that suggestion is offered. However, the less susceptible a person is to the power of suggestion, the more important it would appear to be that suggestions be offered in such a way as not to arouse resistance to those suggestions. Suggestions which are embedded in a metaphor in disguised form should arouse less resistance and should be more effective in producing an hypnotic trance. In order to demonstrate that the subjects of this study did in fact
experience an hypnotic trance, both high- and low-susceptible subjects in both direct and metaphorical induction groups were compared to control groups.

A second purpose of the study was to explore the effect of expectancy on trance depth to determine if subjects expecting to be hypnotized would achieve measurably deeper trances than those subjects expecting not to be hypnotized. A final purpose was to examine the effect of hypnotic technique on post-hypnotic suggestion behavior to determine if either method of induction was more likely to produce a response to post-hypnotic suggestions.

Method

Subjects

The subjects of this study were sixty volunteers from among the student body of North Texas State University (NTSU). They were recruited through announcements made in undergraduate psychology classes and in the NTSU student newspaper. Those who responded from the psychology classes received extra class credit for participating. Those who responded to the newspaper advertisement presumably did so out of curiosity and out of a desire to experience hypnosis. In an attempt to provide similar incentives to those who responded to the classroom and the newspaper advertisements, all participants were told that they would be given an opportunity to learn a self-hypnosis technique at the conclusion of the study.
The study included 28 male and 32 female volunteers. Ages ranged from 19 to 69 years ($M = 27.25, SD = 8.01$). Both males and females were divided equally into high- and low-susceptibles on the basis of their scores on the Harvard Group Scale of Hypnotic Susceptibility.

Instruments

The Harvard Group Scale of Hypnotic Susceptibility: Form A (HGSHS:A; Shor & Orne, 1962) was used as the premeasure of hypnotic susceptibility. This instrument is an adaptation of the Stanford Hypnotic Susceptibility Scale: Form A (SHSS:A). It is assumed to share the validity and reliability of its parent instrument. Bentler and Roberts (1963) found a correlation of .74 between the HGSHS:A and the SHSS:A. Bowers (1962) also found a high correlation (.71) between the HGSHS:A and the SHSS:A. McConkey, Sheehan, and Law (1980) assert that the HGSHS:A is the standard group measure of hypnotic susceptibility. Hilgard (1977) reported that the HGSHS:A is a reliable instrument for obtaining initial ratings of hypnotic susceptibility. All of this would suggest that the HGSHS:A is both a valid and reliable measure of hypnotic susceptibility.

The procedure followed in measuring hypnotic susceptibility with the HGSHS:A is as follows. First, the subjects are read a standard direct hypnotic induction script. Then, while they are under the influence of the induction procedure, they are instructed to experience a number of hypnotic phenomena such
as arm rigidity, eye catalepsy, finger lock, etc. Then they are awakened and instructed to complete a questionnaire about their experience. Depending on their answers, subjects can score from zero to 12 points with zero representing the lowest measure of hypnotic susceptibility and 12 representing the highest measure of hypnotic susceptibility.

Hypnotic susceptibility is conceptualized as the ability of an individual to respond positively to hypnotic suggestions. One who rapidly enters an altered state of consciousness and responds positively to suggestions given while he or she is in trance is considered to be high in hypnotic susceptibility. Conversely, one who does not rapidly enter the trance state and who does not often respond to hypnotic suggestions is considered to be low in susceptibility.

The Field Inventory of Hypnotic Depth (FIHD; Field, 1965) was utilized as the dependent measure of trance depth achieved by subjects in the various experimental conditions. This measure, consisting of 38 true-false questions, was developed to allow subjects to report the depth of trance obtained during hypnotic inductions. Split-half reliability was reported at .92 while test-retest reliability was reported at .87 for this instrument (Field, 1965). Validity was determined by comparing the items in the FIHD with the HGSHS:A. Field reported a correlation of .75 between the two instruments, while Tellegen (1978) found a correlation of .83. The FIHD appears to be both valid and reliable as a measure of hypnotic depth.
The 38 items in the FIHD consist of 31 which should be answered true and seven which should be answered false to indicate maximum depth of trance. In this study, two points were scored for items answered correctly and one point for items answered incorrectly according to Field's scoring procedure. Thus, the scores could range from 38 to 76.

A questionnaire was developed to determine whether high- and low-susceptible subjects entered the hypnotic induction sessions with different expectations. The questionnaire consisted of three true-false questions: (1) "I believe that hypnosis is a useful tool for doctors, dentists, therapists, and others." (2) "I believe that I will be able to experience hypnosis." (3) "I can foresee a time when hypnosis will be helpful to me." These questions were only intended to obtain subjective self-reports from the subjects, so no validity or reliability data were obtained, although the questions did have face validity. Answers to the three questions were compared to scores on the FIHD to determine if a subject's expressed belief regarding the efficacy of hypnosis would affect his or her score on the FIHD.

Finally, a task was devised to measure possible differences in susceptibility to post-hypnotic suggestions. Each subject was instructed during the hypnotic procedure to draw either a "happy face" or a "sad face" on his or her FIHD questionnaire, depending on whether or not he or she enjoyed the hypnotic procedure.
Experimenters

Most experienced hypnotists develop a preference for a particular method of hypnotic induction and they are usually more proficient in that method. To avoid the possibility of experimenter bias, it was decided to use naive experimenters in this study. Seven graduate-level psychology students at NTSU who wanted to learn how to use hypnosis were trained to administer the hypnotic induction procedures used in this experiment. None of the experimenters had any prior training or experience in hypnosis. None was familiar with the literature regarding the various methods of hypnotic induction. Two of the experimenters were male and five were female.

The training consisted of a group demonstration of each of the procedures by this experimenter. Afterward, each experimenter was given a copy of the scripts to be used for the direct induction, the metaphorical induction, and the control group. They were also given tape recordings of this experimenter reading each of the scripts. They were instructed to listen to the tape recordings and to read the scripts until they felt comfortable reading them aloud. They were then instructed to practice reading each script to a volunteer of their choosing as practice until they felt proficient enough to administer the procedures to the subjects of this study. Copies of the scripts are in Appendices A, B, and C.

Procedure

Six group meetings were held over a three-month period during the 1984 summer session at NTSU. It was explained to
those who attended the meetings that they would experience a
group hypnotic induction procedure and that they would be
asked to complete a questionnaire after the procedure. They
were told that all of the procedures used in the study had
been approved by the Human Subject Research Committee. They
were then given the opportunity to leave or to remain and
experience the procedure. Those who chose to remain were
required to complete a "human subject consent form." The
HGSBHSA was then administered. Afterward, an opportunity
was given for the volunteers to ask questions about the
experiment, although they were not given any information that
would bias them about the experiment. They were given a
phone number to call in case they had problems or needed more
information. They were told that they might be given an
opportunity to experience a private hypnotic induction
procedure at a later date.

The procedures used in this study were standard procedures
which have been utilized for many years without difficulty to
subjects. There was no known reason for believing that using
a standard hypnotic induction procedure and afterward asking
the subjects to complete a standard questionnaire would be
dangerous for the subjects. The Human Subject Research
Committee at NTSU approved the experiment. Therefore, it was
assumed that the experiment was both ethical and safe for
the subjects.

On the basis of their scores on the HGSBHSA, which the
volunteers completed at the group meetings, 30 high-susceptible
and 30 low-susceptible subjects were selected. Low-susceptible subjects were those who scored 1-5 and high-susceptible subjects were those who scored 8-12 on the HGSHS:A. In order to make the distinction between high- and low-susceptible subjects more evident, those who scored 6-7 on the HGSHS:A were not selected for this study.

Ten high- and ten low-susceptible subjects were assigned to each of three categories: a direct induction group, a metaphorical induction group, and a control group. Subjects were assigned at random until a group was filled. Remaining subjects were assigned at random to the remaining groups until another group was filled. This method was followed until only one group remained and all remaining subjects were assigned to that group.

Experimenters were not told whether a given subject was high- or low-susceptible. Experimenters were given a card containing a subject's name and telephone number with instructions to use the direct, metaphorical, or control group script with that subject. Each experimenter saw approximately the same number of high- and low-susceptible subjects in each of the experimental conditions. All of the experimenters saw approximately the same number of subjects.

The experimenters met with the subjects in the therapy rooms of the Psychology Clinic at NTSU. Those rooms were approximately 10 X 12 feet, with an entrance door and a window on the wall opposite the door. Each room was furnished with two cushioned, upright chairs positioned at approximately
45 degree angles toward each other, with a lamp table and lamp between and to the side of the chairs. The lamp was turned on and the overhead light was turned off. The chair occupied by the subject faced away from the window. All of the rooms used were quite similar, and each was painted a neutral color. No distracting pictures or other decorations were in the subjects' line of sight.

Experimenters met with individual subjects for one session lasting about one hour. When the subjects arrived, they were instructed to complete the expectancy form. They were then read the script which had been assigned. Subjects in the direct induction group heard a script similar to one described by Kroger and Fezler (1976, pp. 30-32). Subjects in the metaphorical induction group heard a script similar to Erickson's "I had a patient once" technique (Bandler & Grinder, 1975, p. 219). This was a method whereby Erickson would hypnotize a person by telling him or her a story about someone else whom he had hypnotized. The control group was read an article about the history of hypnosis (Goleman, 1977). After the subjects heard their assigned script they were instructed to complete the FIHD as a measure of their depth of trance. They were then thanked for their participation. Any questions they had were answered, and they were given this experimenter's phone number to call in the event they had any problems or questions.
After all 60 of the subjects had participated in the experiment and all of the data were collected, two group meetings were held. Subjects were again given an opportunity to ask questions about the experiment. None reported any problems of any sort resulting from their participation in the experiment. They were instructed in a standard, relaxation-type, self-hypnosis technique as a reward for participating in this study.

Results

The scores for the 60 subjects ranged from 38 to 73 ($M = 53.37$, $SD = 9.16$) on the FIHD. Table 1 contains a summary of the frequency data from the FIHD. A $2 \times 3$ analysis of variance was computed for the data from the FIHD (see Table 2). Main effects were found for both degree of susceptibility and experimental methods, but no interaction effect was found. When the high- and low-susceptible subjects were compared, a significant difference was found ($F(1, 60) = 24.58$, $p < .01$). The high-susceptible subjects obtained

<table>
<thead>
<tr>
<th>Hypnotic Susceptibility</th>
<th>Direct Induction</th>
<th>Metaphorical Induction</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>$M = 60.70$</td>
<td>$M = 62.60$</td>
<td>$M = 49.60$</td>
</tr>
<tr>
<td>Susceptible</td>
<td>$SD = 6.77$</td>
<td>$SD = 5.38$</td>
<td>$SD = 7.00$</td>
</tr>
<tr>
<td>Low</td>
<td>$M = 52.90$</td>
<td>$M = 50.80$</td>
<td>$M = 43.60$</td>
</tr>
<tr>
<td>Susceptible</td>
<td>$SD = 8.67$</td>
<td>$SD = 7.60$</td>
<td>$SD = 3.17$</td>
</tr>
</tbody>
</table>

Table 1

Frequency Data from the FIHD
Table 2

Analysis of Variance

<table>
<thead>
<tr>
<th>Source of variation</th>
<th>Sum of squares</th>
<th>DF</th>
<th>Mean square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main effects</td>
<td>2466.000</td>
<td>3</td>
<td>822.000</td>
<td>18.497*</td>
</tr>
<tr>
<td>Susceptibility</td>
<td>1092.267</td>
<td>1</td>
<td>1092.267</td>
<td>24.578*</td>
</tr>
<tr>
<td>Induction</td>
<td>1373.733</td>
<td>2</td>
<td>686.866</td>
<td>15.456*</td>
</tr>
<tr>
<td>Interaction</td>
<td>88.133</td>
<td>2</td>
<td>44.967</td>
<td>0.992</td>
</tr>
<tr>
<td>Explained</td>
<td>2554.133</td>
<td>5</td>
<td>510.826</td>
<td>11.495</td>
</tr>
<tr>
<td>Residual</td>
<td>2399.785</td>
<td>54</td>
<td>44.440</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4953.918</td>
<td>59</td>
<td>83.865</td>
<td></td>
</tr>
</tbody>
</table>

*p < .001

significantly higher scores on the FIHD than did the low-susceptible subjects, signifying greater depth of trance.

When the two experimental groups and the control group were compared, a significant difference was found ($F(2, 60) = 15.46, p < .01$). No interaction effect was found ($F(2, 60) = 0.99, p < .05$); therefore it was not demonstrated that either induction method was more effective than the other in producing an hypnotic trance in either high- or low-susceptible subjects.

Since no interaction effect was found, the high- and low-susceptible subjects scores on the FIHD were combined within each of the three experimental groups. A Newman-Keuls test was conducted on the data to determine how the three groups differed. It was found that both the direct and the
metaphorical induction groups produced scores significantly higher than the control group, but not significantly different from each other. When the metaphorical induction group was compared with the control group, significance was found at the .01 level ($q = 6.78$). When the direct induction group was compared with the control group, significance was found at the .01 level ($q = 6.85$). When the metaphorical and direct induction groups were compared, no significance was found ($q = 0.07, p < .05$). These results are presented in Table 3.

An examination of the data from the expectancy questionnaire revealed an interesting phenomenon. There were significant differences in expectancy between the high- and low-susceptible groups, but the differences in expectancy were not reflected in their scores on the FIHD. These data are presented in Table 4. It will be noted that all 60 subjects

Table 3
Newman-Keuls Test

<table>
<thead>
<tr>
<th>Group</th>
<th>a = Control group</th>
<th>b = metaphorical induction group</th>
<th>c = direct induction group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score on FIHD</td>
<td>46.60</td>
<td>56.70</td>
<td>56.80</td>
</tr>
<tr>
<td></td>
<td>a</td>
<td>6.78*</td>
<td>6.85*</td>
</tr>
<tr>
<td></td>
<td>b</td>
<td></td>
<td>0.007</td>
</tr>
<tr>
<td></td>
<td>c</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .01
Table 4
Data from Expectancy Questionnaire

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T</td>
<td>F</td>
<td>T</td>
</tr>
<tr>
<td>High susceptible</td>
<td>20</td>
<td>0</td>
<td>19</td>
</tr>
<tr>
<td>Low susceptible</td>
<td>20</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>0</td>
<td>31</td>
</tr>
<tr>
<td>Chi-square (df = 1)</td>
<td>14.92*</td>
<td>13.72*</td>
<td></td>
</tr>
</tbody>
</table>

Note. Qn. 1 = T-F "I believe that hypnosis is a useful tool for doctors, dentists, therapists and others."
Qn. 2 = T-F "I believe that I will be able to experience hypnosis."
Qn. 3 = T-F "I can foresee a time when hypnosis will be helpful to me."

*p < .01

believed hypnosis to be a useful tool for doctors, etc. Since all 60 subjects gave identical answers to the first question, it was dropped from further consideration. Of the 60 subjects, 48 expressed the belief that they would be able to experience hypnosis, while 12 expressed the belief that they would not be able to experience hypnosis. Similarly, 48 expressed the belief that they might benefit from hypnosis in the future, while 12 expressed the belief that they would not benefit from hypnosis in the future.
The high- and low-susceptible groups differed significantly ($\chi^2 = 14.92, p < .01$) in their answers to the second question on the expectancy questionnaire ("I believe that I will be able to experience hypnosis"). However, no significant difference was found between their scores on the FIHD ($M = 52.17$ and $51.38$ for high- and low-susceptible subjects respectively, $t = 0.01, p < .05$). Thus, the expectancies stated by the subjects regarding whether they would be able to experience hypnosis were not significantly related to whether they actually did experience hypnosis.

The high- and low-susceptible groups also differed significantly ($\chi^2 = 13.72, p < .01$) in their answers to the third question on the expectancy questionnaire ("I can foresee a time when hypnosis will be helpful to me"). Again, however, there was no significant difference between their scores on the FIHD ($M = 59.5$ and $56.0$, $t = 1.40, p < .05$). Thus, the expectancies stated by the subjects regarding future usefulness of hypnosis was not significantly related to whether they experienced hypnosis.

A post-hypnotic suggestion to draw either a happy face or a sad face on the FIHD form was given to the 40 subjects in the experimental groups. Sixteen responded by drawing faces on their forms. Fifteen drew happy faces and one drew a sad face. One subject, who did not draw a face, wrote on her form: "The relaxation suggestions were so relaxing that I felt very sleepy. Just off the top of my head, every time I
circled T or F above, I wanted to make a face out of the circle. I suspect a post-hypnotic suggestion."

When the scores on the FIHD were compared for those subjects who did and did not draw faces, no significant differences were found ($t = .718, p < .05$). The high-susceptible subjects who drew faces had FIHD scores similar to those who did not draw faces, and the low-susceptible subjects who drew faces had FIHD scores similar to those who did not draw faces. These data are presented in Table 5.

Table 5
Frequency Data for Post-Hypnotic Suggestion

<table>
<thead>
<tr>
<th>Method</th>
<th>Direct</th>
<th>Metaphor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>High-susceptible</td>
<td>$n = 4$</td>
<td>$n = 6$</td>
</tr>
<tr>
<td></td>
<td>$M = 63$</td>
<td>$M = 59$</td>
</tr>
<tr>
<td>Low-susceptible</td>
<td>$n = 5$</td>
<td>$n = 5$</td>
</tr>
<tr>
<td></td>
<td>$M = 53$</td>
<td>$M = 53$</td>
</tr>
</tbody>
</table>

Note. Yes = number of subjects drawing a happy face or a sad face on the FIHD form.

No = number of subjects not drawing a face on the FIHD form.

$M$ = mean score on FIHD for subjects in each category.
Discussion

It was hypothesized that a direct hypnotic induction technique and a metaphorical hypnotic induction technique would be similarly successful in producing an hypnotic trance in high-susceptible subjects, but that a metaphorical hypnotic induction technique would be significantly more effective than a direct hypnotic induction technique in producing an hypnotic trance in low-susceptible subjects. This hypothesis was based on the rationale that the more susceptible one is to the power of hypnotic suggestions, the less important the method of offering those suggestions should be while the less susceptible one is to the power of hypnotic suggestions, the more important the method of offering those suggestions should be. When hypnotic suggestions are embedded in a metaphor in such a fashion that they are not easily recognized, less resistance should be aroused within the low-susceptible subject, and the easier it should be for that subject to respond to the suggestions.

The hypothesis was only partially supported by the data. Both hypnotic induction techniques were similarly successful in producing an hypnotic trance in high-susceptible subjects, but the metaphorical induction technique was not significantly more effective in producing an hypnotic trance in low-susceptible subjects. Rather, it was found that both techniques were similarly successful in producing hypnotic trances in both high- and low-susceptible subjects. No
significant difference in effectiveness was found for either of the two hypnotic induction techniques. This study demonstrated that an Ericksonian metaphorical hypnotic induction technique was as good as, but no better than, a traditional direct hypnotic induction technique. This finding was contrary to clinical results reported by Milton H. Erickson and his disciples.

One reason why the metaphorical hypnotic induction technique used in this study was not as successful as the metaphors used by Milton H. Erickson to produce hypnosis in low-susceptible subjects may have been that the metaphor used in this study was too obvious. Perhaps one important factor in Erickson's success was his ability to disguise his suggestions and intersperse them throughout his metaphors in such a way that the subjects were not consciously aware that suggestions were being given, so no resistance was aroused.

As pointed out by Haley (1981), Erickson would change the subject of his discussion if he suspected that his client was becoming aware that suggestions were being given. In this study, however, the metaphor used was fairly transparent. While the subjects were never directly told to relax, they may have recognized that they were being given such suggestions indirectly. Perhaps this awareness aspect prevented the metaphor used in this study from being more effective in producing a trance state in low-susceptible subjects.
A second possibility why the metaphor used in this study was not more successful may have been that it was presented by naive experimenters reading a script. While the direct hypnotic induction techniques can be presented fairly well by reading a script, the metaphorical technique may require the hypnotist to pay more attention to the subject than is possible while reading a script.

Bandler and Grinder (1975) have discussed the importance of "pacing" the subject in Ericksonian hypnotic induction techniques. By pacing they mean observing the subject closely enough to describe that the subject is doing and matching comments with observations. For example, the hypnotist might say, "Breathing in," just as the subject inhales; then, "Breathing out," just as the subject exhales. Gradually the Ericksonian hypnotist moves from pacing to leading the subject. For the naive experimenter who must keep his or her eyes on a script, it is almost impossible to know exactly when to make a disguised suggestion in such a way that it will have maximum value. Perhaps more skill is required to use metaphorical hypnotic induction techniques, and the experimenters used in this study were not experienced enough to use such a technique effectively.

It is also possible that the results were confounded by the use of too many experimenters. Seven experimenters were used because they were busy graduate students, and no two or three could spare enough time to see all 60 subjects within a
reasonable period of time. However, it might have been better to secure the services of one or two experimenters on a full-time basis to avoid the possibility of confounding the results by using too many experimenters. The data did not indicate that any of the experimenters were significantly more or less effective than the others, but there is a possibility that one or two experimenters might have obtained better results than seven did.

Still another reason why the metaphor used in this study was not more successful in producing hypnosis in low-susceptible subjects may have been the result of differences between clinical and experimental subjects. It has been noted that motivation is a key factor in the success of any hypnotic induction technique. Erickson's patients were largely individuals who came to him to seek help in dealing with physical, psychological, or social problems. Since they wanted help, and since Erickson was a noted hypnotist, they came to Erickson in hopes that his hypnotherapy could help them. It may be that whatever method of inducing hypnosis Erickson chose would have worked equally well, since his subjects were highly motivated. Although he preferred to use metaphorical techniques, especially with those whom he considered to be low-susceptible, Erickson might have been equally successful with a direct induction technique when working with highly motivated patients who were seeking relief from some distress.
The subjects of this study, however, had no real incentive to yield to the experimenters' suggestions to relax. They came out of curiosity or to earn credit in a psychology class. It can be assumed that the subjects of this study differed in motivation from the patients whom Erickson saw in clinical practice. For low-susceptible subjects, especially, the motivational differences may have been an important factor in the different results obtained by Erickson and in this study. The extra incentive of being offered training in self-hypnosis may have caused more of the subjects to participate in the study, but it would not cause them to go into trance more readily.

Finally, it may be that metaphorical hypnotic induction techniques are not inherently better than direct techniques for inducing hypnosis in low-susceptible subjects. Many hypnotists, including Erickson, have noted that the relationship between the hypnotist and the subject is more important than the method used to induce hypnosis. Erickson's preference for metaphorical techniques may have resulted more from his love for variety than from any superiority of such methods. It has already been noted that Erickson liked to find new ways to solve old problems (Lankton & Lankton, 1983). One drawback of most direct hypnotic induction techniques is that they are painfully boring for hypnotists who use them often. Erickson may have preferred metaphorical techniques, not because they worked better, but because they were more
interesting to him. He is reported to have said, "I don't like to waste time in a formal technique" (Rossi & Ryan, 1985, p. 39). The findings of this study, that metaphorical and direct techniques work about equally well with both high- and low-susceptible subjects, may be accurate.

The findings of this study would suggest that the choice between metaphorical and direct induction methods should be based on factors other than the level of susceptibility of the person to be hypnotized. Rather than using a metaphorical induction simply because the person to be hypnotized is low in susceptibility, the hypnotherapist would likely fare better if he or she took into consideration the overall personality of the subject, the relationship existing between therapist and client, the personal preference of the hypnotherapist, and all of the other factors usually considered in selecting any treatment of choice in any therapeutic situation.

A second focus of this study was to determine whether high- and low-susceptible subjects entered the hypnotic induction sessions with different expectancies, and whether their expectancies influenced their scores on the measure of depth of trance. Significant differences in expectancy were expressed by the subjects. Almost all of the high-susceptible subjects expressed the belief that they would be able to experience hypnosis, while only 60 percent of the low-susceptible subjects expressed such a belief. Interestingly, however, the expectancies expressed by the subjects were not
predictive of success in experiencing hypnosis. The mean scores on the FIHD were almost identical for those who expressed the belief that they would be able to experience hypnosis and for those who expressed the belief that they would not be able to experience hypnosis. This finding would suggest that expectancy regarding the ability to be hypnotized was not a factor in determining whether a subject actually was hypnotized in this study.

This interesting finding merits further study. One would intuitively expect expectancy and susceptibility to be related. Since expectancy and susceptibility were not found to be related in this study, then hypnotic susceptibility would appear to be the result of other factors than expectancy. Some of those factors might be (a) the ability to surrender ego control, (b) trust in the hypnotist, (c) more vivid imagination, (d) more ability to focus the attention, and (e) less fear of the unknown.

The finding of this study that expectancy and susceptibility were not related should be replicated under different conditions than those of this study. In retrospect, it appears that the subjects may have been biased in answering the question about whether they thought they would be able to experience hypnosis. The expectancy questionnaire was not completed by the subjects until after they had experienced the HGSHS:A group induction procedure; therefore, the subjects had some idea of how well they had already responded to at
least one induction procedure. They may have been reporting the results of their experience in the preliminary meeting, rather than their true expectancies. Since the expectancy questionnaire was not completed before the first induction, the results must be suspect until they are replicated. Further research could address that question.

A final focus of this study was to determine whether high- or low-susceptible subjects were more likely to respond to a post-hypnotic suggestion. Interestingly, no significant differences were found between high- and low-susceptible subjects on the post-hypnotic measure. The low-susceptible subjects responded to the suggestion to draw a happy or a sad face slightly more often than did the high-susceptible subjects. This finding would appear to merit further study. The literature on post-hypnotic suggestions has not reported that low-susceptible subjects are as likely, or more likely, to respond to post-hypnotic suggestions than high-susceptible subjects. Intuitively, one would not expect to find this result. Perhaps that finding in this study was an artifact of the methodology used. An attempt to replicate the finding would determine whether further study of this phenomenon is merited.

Regarding further research on the primary hypothesis of this study--i.e., that metaphorical hypnotic induction techniques are more effective than direct techniques with low-susceptible subjects--certain suggestions appear to be in order. First, it is recommended that the possibility of
experimenter bias be avoided in some way other than by using naive experimenters. Newly trained hypnotists who must read a script while attempting to induce hypnosis would appear not to be able to provide a fair estimate of the efficacy of such a subtle technique as the metaphorical hypnotic induction procedure.

Perhaps it would be better to use fewer and better trained hypnotists who are equally proficient in both techniques and who have no preference for either. Or perhaps it would be better to use one or two hypnotists who are expert in the direct method to present the direct method to subjects, and one or two hypnotists who are expert in the metaphorical method to present the metaphorical method to subjects. Either procedure would appear to be preferable to using naive experimenters to compare the different methods.

Second, individually tailored metaphors matched to the interests of the subjects might be more effective than the metaphor selected for this study. The "I had a patient once" metaphor was selected because it appeared easier for the naive experimenters to use. However, with more experienced experimenters it should be possible to use metaphors which are more subtle and better designed to fit individual subjects. It might be possible to obtain from each subject advance information which would make it possible to design individualized metaphors for subjects. That might strengthen the power of the metaphorical hypnotic induction technique.
In summary, this study found no significant differences between a direct and a metaphorical hypnotic induction technique with either high- or low-susceptible subjects. It found that subjects who expected to be able to experience hypnosis were no more likely to do so than subjects who expected not to be able to experience hypnosis. And it found that low-susceptible subjects were as likely as high-susceptible subjects to respond to post-hypnotic suggestion. Implications for treatment and recommendations for future research were discussed.
Appendix A

Direct Hypnotic Induction

Please make yourself comfortable in the chair. It is best to place both feet on the floor and both arms on the arms of the chair. That's right.

First, I want you to look at a fixed spot. Choose one on the wall / or the ceiling / and keep staring at it. / As you keep staring at it / the first sensation / that you will learn to control / is that of HEAVINESS. / Your eyelids are getting VERY / VERY / HEAVY. / Getting HEAVIER / and HEAVIER. / Your eyes want to blink / and perhaps you want to SWALLOW / and that's a good sign / that you are going deeper / and DEEPER / RELAXED. / And now, at the count of 3 / if you REALLY wish / to gain skill with HYPNOSIS / you will gently control / the closing of your eyelids. / At this point / you will notice / that you want / to close your lids / because they are getting / very, very TIRED.

Promptly, precisely, and exactly / at the count of 3 / you will CLOSE your eyelids / not because you have to / but because you really WANT TO. / Now don't close them too rapidly / but close them gently / at the count of 3. / One, your eyes are CLOSING / Two, lids are closing TIGHTER / and TIGHTER. / And three, let your lids CLOSE now. / And I want you to feel that TIGHTNESS. / Good. / This is just one sensation / that you are gaining control over.
Now, without opening the eyes / let your eyeballs roll up / into the top of your head. / In a moment / when they return to their normal position / you will notice / that your eyelids are stuck / TIGHTER and TIGHTER together. / Now, let the eyeballs roll back down / into their normal position.

Now, I'd like for you to imagine / that your entire body / from your head / to your toes / is becoming very, VERY RELAXED. / However, your body / will not relax / just because you tell it to. / Rather, it will only relax / if you pair this suggestion / with the memory / which once produced / the desired response. / Perhaps it would be nice / if you would imagine yourself / RELAXING / on a beach/ and listening to the waves roll in / one after another. / You are RELAXING / deeper and DEEPER. / And the more vividly / that you can SEE / all the typical sights / and hear the waves / of your beach / the deeper RELAXED / you will go. / And the more vividly / that you can see yourself / on that pleasant / relaxing / beach / the deeper RELAXED / you will go. / And the more vividly / that you can hear / the peaceful / and relaxing / waves / down at the shore / the deeper relaxed / you will go. / You are doing FINE / just fine. / Your breathing / is getting slower / deeper / more regular / slower / deeper/ more regular.

Now, if you REALLY wish / to go DEEPER / and gain more mastery / over yourself / so that you / can gain other skills / that you wish to enjoy / you will first / learn how to raise your arm / in a controlled fashion. / Listen very carefully /
to the following instructions. / And carry them out / to the 
best of your ability. / The better you control / the raising 
of your arm / the better you will be / able to control / other 
areas of your life. / Raise your nondominant arm / in the 
following fashion. / Here are the instructions / for the 
raising of your arm. / Listen carefully for the instructions. 
/ Raise your nondominant arm / about two or three inches / 
from the arm / of your chair. / Raise the arm / NOW / and 
pause for a few seconds. / During this pause / you might be 
willing to suggest / that as your arm moves higher / it will 
get lighter / and LIGHTER.

Another sensation / that YOU are controlling. / And the 
higher your arm rises / the lighter it will get / and the 
deeper RELAXED / you will go. / You will raise your arm / 
at the count of three / not because you have to / but because 
you REALLY want to. / Now, do not raise it too rapidly / one, 
raise the arm slowly / two, slowly the arm is lifting / 
lifting / LIFTING / and as it gets higher / it gets lighter. / 
Higher and LIGHTER. / HIGHER and lighter. / Three, as the arm 
points up / your state of RELAXATION / is getting deeper / and 
DEEPER. / You are doing fine.

Your breathing is getting slower / deeper / more regular. / 
Arm getting LIGHTER / and lighter. / That's right. / Pointing 
upward. / And as your arm points upward / you will notice / 
that you can develop / another sensation / that of STIFFNESS. 
/ Your arm points upward / toward the ceiling / and your arm
grows stiff / from the elbow / to the hand / to the fingers. /
Your arm is very stiff / from the elbow to the fingertips /
like a bar of steel / pointing upward. / Notice the stiffness. /
That's right. / You are doing fine.

Now, if you wish / to gain control / over other sensations /
and gain more mastery / over your life / listen very, very
carefully / to the following instructions. / At the count of
3 / you will ever so slowly / about an inch or two at a time /
allow your arm / to begin to sink / back toward your side. /
And with every inch / that it sinks / your arm will become /
limp / LIMP / as a wet noodle. It will become limper / and
limper / as it sinks / to your side. / Isn't it remarkable / how many sensations / you are gaining control over? / And
isn't it remarkable / how many sensations / are built / into
your body?

One, the arm is beginning to sink / down toward your
side / ever so slowly / not too rapidly / Two, dropping very,
very SLOWLY / toward your side / and with each motion downward /
as your arm descends / perhaps you would suggest / to yourself /
that when your arm relaxes / on the arm of the chair / that
will be a signal / for your entire body / to become completely
RELAXED. / Three, NOW, let your arm return / to the arm of
the chair / and let your arm / become very, very relaxed /
and let your entire body / from head / to toe / become very,
very RELAXED. / Every muscle / and every fiber / of your body /
becoming very, very RELAXED.
Now I want you to IMAGINE that you are standing at the top step of a beautiful spiral staircase. Picture this staircase in your mind. Just like one you might see in a movie of a castle or a mansion and you are standing on the very top step. In a moment I am going to be quiet and at that time I want you to imagine walking slowly SLOWLY DOWN the staircase. And as you go DOWN down the staircase you will sink deeper and DEEPER into a relaxed HYPNOTIZED state. Now let yourself descend going down one step at a time DOWN the staircase and drift deeper and DEEPER into hypnosis. Walk slowly down the stairs sinking deeper and DEEPER into a relaxed state of hypnosis. And you will sink deeper and deeper with each step DOWN.

Now you are in a very DEEP state of relaxation and it is so pleasant SOOO PLEASANT. To be so relaxed and at peace with the world.

In a few moments after you awaken you will be asked to answer some questions about your experience. At the bottom of the page you may draw a HAPPY FACE if you ENJOY the experience or a sad face if you do not enjoy it. Remember a happy face or a sad face.

Now in a few moments I am going to count from 1 to 5. And as I count you will begin to awaken and when I say the number 5 you will awaken feeling refreshed and alert and wide awake. One, take a deep breath. Two,
becoming aware of the environment / around you. / Three, feeling the circulation / return to your hands / and your feet / and arms and legs. / Four, almost awake / feeling refreshed / and alive. / Five, OPEN YOUR EYES. Wide awake. Fully alert. Blink your eyes a time or two. Return to full awareness, feeling sooo refreshed.
Appendix B

Metaphorical Hypnotic Induction

Please / make yourself / comfortable / there in the chair. It is best / to place both feet / on the floor, / and both arms / on the arms / of the chair. / That's right. / If, at any time / you feel like / closing your eyes, / please feel free / to do so.

I am going to / tell you a story / to help you / to understand hypnosis/ better. / It is a / true story / about a doctor / named Milton Erickson / who was / one of the / best hypnotherapists / who ever lived. / Dr. Erickson / hypnotized / more than / 30,000 people/ during his lifetime / helping them / to overcome / many problems / ranging from / just feeling low / to major problems.

Dr. Erickson / didn't use / a lot of / dramatic gestures / like a / stage hypnotist / might use. / He would just / sit quietly / talking / with a person / and pretty soon / that person / would find himself (herself) / drifting / into an / hypnotic trance. / Sometimes the trance / would / come quickly / and sometimes / it would take / just a little longer / but it seemed / easy / and natural / to just / listen to the words / and to ignore / whatever else was happening.

People sort of just / let go / and closed the eyes / and never knew / that they were / beginning to / go into hypnosis. / But time sort of / just / seemed to / stand still / they felt / somehow / distracted / kind of a dazed feeling / and
they really weren't aware of where they were or what they were doing.

And sometimes the hypnotist's voice seemed to come from FAR AWAY and sometimes a person feels like they have been ASLEEP for a few moments. But it is SO EASY to just LET GO and listen to the hypnotist's voice and go into a mild HYPNOTIC trance.

And sometimes Dr. Erickson would have a person who found it difficult to GO INTO A TRANCE. And he would tell them a STORY about some other person that he had treated who had learned to just LET GO and ENTER A TRANCE. And they might find it EASY to just LET GO and ENTER A TRANCE and they listened to the hypnotist telling about hypnotizing someone else. Because you can go into hypnosis while listening to a hypnotist hypnotizing someone else.

Dr. Erickson would say Joe (Mary) I had a client once who was somewhat like YOU and he (she) had a problem that was somewhat like yours and they didn't know how EASY it is to slip into hypnosis. So I told them to RELAX and CLOSE THE EYES and breathe SLOWLY and DEEPLY and to enjoy the feeling of relaxation. And they would CLOSE THE EYES and RELAX and they might GO INTO HYPNOSIS quickly, or it might take just a LITTLE longer but the relaxation was SOOOO pleasant and they were enjoying the experience SOOOO much that time
seemed to / just STAND STILL. / And sitting there / with the
EYES CLOSED / they seemed to / understand things better, /
and they were AMAZED / and happier / and more lighthearted /
as they sat there / with the / EYES CLOSED / RELAXING /
listening to the voice / experiencing hypnosis / as an
enjoyable / RELAXING / natural / experience.

And Dr. Erickson would say / Joe (Mary) / I want YOU /
to remember / a special time / when you got a / very special
gift / that made you happy / and made you feel / that life
was worth living. / So PLEASANT / and ENJOYABLE.

And sometimes / it would happen / QUICKLY / and sometimes
/ it takes a little longer / but EVERYBODY / can remember /
some time in their life / when they / received something /
that they really liked. / And it was TRUE. / And Dr. Erickson
/ would say / Remember / that time / when YOU got / that gift
that / you enjoyed so much. / And they would / REMEMBER. /
And sometimes / it would seem / as if they had / actually
gone BACK / to that time / to reexperience the moment / and
relive it / in the mind. / And sometimes / it seems as if /
WE CAN / GO BACK / in our mind / and relive a time / when
life was GOOD / and we were HAPPY / and things were FUN. /
And YOU can / REMEMBER / a time / when life was good / and
HAPPY. / And YOU can / GO BACK / in your mind / and relive
the experience / and have the happiness / as you / go back /
and relive that time / in your mind.
And while people are there / in their mind / reliving the past / enjoying the good / that they can remember / they sometimes forget / all their problems / and where they are / and what they are doing. / And time stands still / and YOU drift away / into a pleasant / frame of mind / and life seems better. / And the hypnotist's voice / seems to some from / FAR AWAY / and YOU can HEAR IT / and respond to his / suggestions / and be happier / and more lighthearted / and it helps YOU / to overcome your problems / and enjoy life more / and more.

And it really works. / YOU can RELAX / and feel better / and enjoy life more / when you listen / to the suggestions / of someone / like Dr. Erickson. / And his clients would / LISTEN / as he told them / about others / whom he had / hypnotized / and they would / ENTER A TRANCE / maybe a light trance / or perhaps / they would choose / to GO DEEPER / into hypnosis / as they listened / to the voice / of the hypnotist.

And as they go / DEEPER / into HYPNOSIS / the suggestions / of the hypnotist / can help more / and more / to RELAX / and listen / to the voice / of one / who is helping / to feel better / and enjoy life more / and overcome problems / and have fun / while living / in this life. / And Dr. Erickson / would talk to them / and they would / FEEL BETTER / and sometimes / they would / GO DEEPER / and DEEPER / into hypnosis. / And they could / understand things better / and more DEEPLY /
as they experience / their trance / and listened to / Dr. Erickson / as he suggested / to them / that they could / FEEL BETTER / and enjoy life more / and some part / of the mind / knew that it was / TRUE / listening to the / hypnositist's voice / and using some / part of the mind / some power / within the mind / to make life better / to take control / of the problems / and overcome them / and feel better / and enjoy life more.

And Dr. Erickson would say / when you awaken / you will feel better / and you will / remember / going into the past / and reliving the time / when you got that gift / and they would. / Because YOU can / go back / in your mind / and relive the past / and recapture the feelings / of good times / you have known. / And you can / bring the good feelings / into the present. / And in a few moments / when you awaken / you will remember / the joy you felt / when you got / that gift / and you will / FEEL GOOD / and RELAXED / and ready to enjoy / the good things / of life.

And Dr. Erickson's client / who didn't know/ that he (she) / was being hypnotized / would be hypnotized / without even knowing it / until they awakened / and realized / they had been hypnotized.

And Dr. Erickson would say / to his client / in a few moments / when you awaken / I will ask you / to answer some / questions / about this experience. / At the bottom / of the questionnaire / you may draw / a HAPPY FACE / if you have
enjoyed / this experience / or you may draw / a sad face / if you have not / enjoyed this experience. / Remember / draw a happy face / or a sad face / on the form.

And Dr. Erickson would say / Now you can wake up / as soon as / you are ready / and you will / feel better / as we talk about / YOUR experience. / So / if YOU're ready / it's time to / WAKE UP / and we will discuss / how you feel / about HYPNOSIS.

* * * *

NOTE: If, at this time, your subject does not awaken, simply call his (her) name, and ask, "Did you go into an hypnotic trance, as I told you about Dr. Erickson?"
Appendix C

Control Group Script

Hypnosis was once looked upon as a kind of parlor stunt, or worse, as a devil's device to control men's minds. It is now solidly allied with psychiatry and medicine, and is steadily proving its usefulness as a clinical tool against pain, fear, and a host of other physical disorders. The American Society of Clinical Hypnosis was founded in 1957 by a group of 20 professionals; within a year it had 1,060 members, a figure that has grown to 2,600 members today. Yet scientists still cannot agree on what hypnosis is, or whether there is any such thing at all.

The fact is there is no objective way of identifying or measuring the hypnotic trance, although a skilled clinician can recognize one. A subject under hypnosis may or may not exhibit alteration in brain waves, eye movements, pulse or breath rate, or galvanic skin response depending on the hypnotist's suggestions and the subject's susceptibility.

People who are hypnotized for the first time are frequently disappointed to find that they experience nothing overwhelming. They feel mildly relaxed, but they remain in touch with reality and in control of their thoughts. They may discover that the hypnotist's suggestions are quite resistible.

Contrary to what most people believe, a person under hypnosis need not fall asleep nor lose contact with his
surroundings nor relinquish his will. He is often able to recall everything that happened during a trance and will probably act normal. Indeed, some people say that any response elicited hypnotically could be achieved through other means. Theodore X. Barber, a former stage hypnotist who holds a Ph.D. in psychology, says that the famous theatrical trick wherein the hypnotist enables his subject to lie rigid with his head on one chair and his ankles on another is a hoax. We assume that without hypnosis such a feat is impossible, but Barber has had unhypnotized people do the same thing.

But other experts dispute Barber, arguing that there is such a state as hypnotic trance, and hypnosis does work therapeutically. The fact that the state can't be measured or identified may simply mean that we have not found how to do this, not that the state does not exist. Hypnosis as studied in laboratories may be different from what occurs between patient and therapist. In experimental studies, the researcher must use a standard means of trance induction with every person. The trance instruction is often on tape; the hypnotist may never see his subject.

The clinical hypnotist is under no such constraints. Like an artist who is free to follow his creative urge, the clinical hypnotist can use whatever method is most effective, and he can work with the same person repeatedly until the patient experiences a radical difference between trance and waking.
A hypnotic trance is undoubtedly an extension of common states of mind. We all undergo "everyday trance" from time to time, when we are deeply absorbed in reverie or preoccupied with what we are doing. In these moments we are fully focused, oblivious to what happens around us. The football fan watching the Superbowl on TV, for example, is fully alert to the game, but unaware of his body sitting in the chair, or his wife calling him to dinner.

The ability to be absorbed in this way is called "response attentiveness," and it marks one as a good candidate for hypnosis. A stage hypnotist looks for signs of this full attentiveness as he surveys his audience for subjects. When a patient in therapy quietens down, concentrates and responds readily, the therapist knows that he has become attentive and ready to begin hypnosis.

Even among those who agree that trance exists, there is little agreement on what exactly goes on during hypnosis. Some say it is a unique psychological state; others claim it is mere role-playing, perhaps regression to childhood with the hypnotist as the parent. Another theory calls it a case of dissociation, with certain psychological functions going on autonomously, out of conscious control. Yet no one theory can explain everything that happens in hypnosis. The essence of the state eludes us. The fact remains that the best hypnotists are more like artists than technicians.
Appendix C—continued

No wonder, then, that the roots of clinical hypnosis are obscure, probably more closely tied to religion and magic than to science. It may be that the miraculous cures accomplished by the priests of Egypt and Greece were accomplished hypnotically. The power to heal by suggestion, or by "laying on of hands," was generally ascribed to divine intervention until the 17th century when Athanasius Kircher, a German scholar, came up with the idea that a natural force called "animal magnetism" was at work.

In the next century a physician practicing in Vienna took the idea of animal magnetism and turned himself into a household word. Franz Mesmer believed that sickness and health were controlled by the balance of a universal, invisible fluid in the human body, and that when illness occurred, this fluid could be returned to its proper harmonious functioning by the use of magnets. With his magnets Mesmer cured many patients of a variety of complaints. Strangely enough, they would usually go into convulsions during treatment, which Mesmer took as a sign that the magnetism was working. His explanation for his failures was that some people had a mysterious force in their bodies that defied his magnets.

Mesmer's real contribution to hypnosis was that he learned to induce trance. Soon, "mesmerism" was being practiced all over France. In the early 19th century, one of Mesmer's followers made an advance in hypnotic technique when he found that he could induce trance without causing the
convulsions that Mesmer had taken to be necessary. By this
time there were mesmerists all over Europe, some of them
respectable physicians, some of them quacks who made wild
claims for the powers of animal magnetism.

In 1837 a commission of the French Academy of Medicine
proclaimed that any cures affected by mesmerism were brought
about entirely by suggestion. Later, an English physician
named James Braid decided that mesmerism was a psychological
effect, not a physical phenomenon as Mesmer had thought. He
coined the word "hypnosis" from the Greek root meaning "to
put to sleep."

Hypnosis has survived, and the reason is that it works—
not always, not with everyone, but well enough to make it live
on. When the hospitals were filled with shell-shocked psycho-
logically ravaged men, following World War I, a pragmatic style
of hypnosis came into being that was successfully used to treat
muscle spasms, paralysis, and amnesia. During World War II
hypnotism became a standard treatment for victims of battle-
field neuroses, especially when a short-term treatment was
needed.

Not until long after the war, however, did hypnosis gain
real credence among therapists, doctors, and dentists. There
are now two groups for professional hypnotists: the American
Society for Clinical Hypnosis and the Society for Clinical and
Experimental Hypnosis. In 1956 the American Medical Association
pronounced that hypnosis was "valuable as a therapeutic
adjunct," which meant that hypnosis had finally arrived as a reputable tool for medical science.

After 200 years of use, we still cannot say with certainty what hypnosis is nor exactly how it works, but somehow, it does. Hypnosis has been redeemed from the ill repute of a century ago, and it is here to stay.

(Adapted from Goleman, 1977).
References


