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An inquiry into the effect of positive [sic] and negative expectancy on hypnotizability as measured on the Stanford Hypnotic Susceptibility Scale, form A.

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**AN INQUIRY INTO THE EFFECT OF POSITIVE AND NEGATIVE  
EXPECTANCY ON HYPNOTIZABILITY AS MEASURED ON  
THE STANFORD HYPNOTIC SUSCEPTIBILITY SCALE:  
FORM A**

A Dissertation Presented by

SARAH LANGDELL

Submitted to the Graduate School of the University of Massachusetts in  
partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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Counseling Psychology

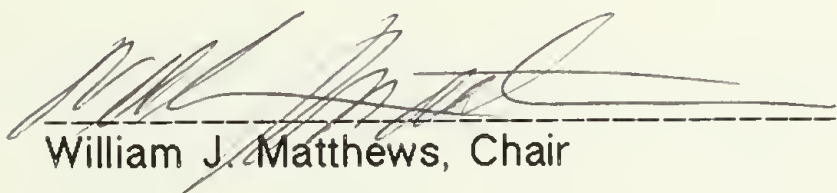
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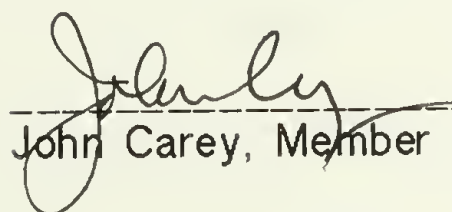
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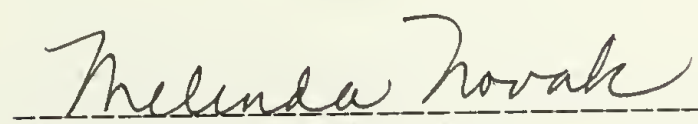
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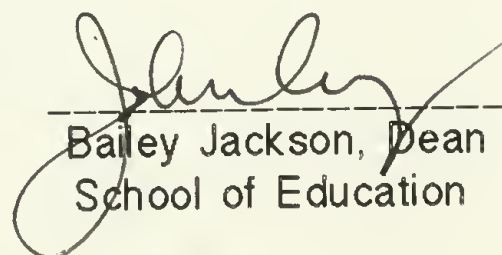
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## ACKNOWLEDGEMENT

John always believed I could do it; even when he was the only one, and he was always there to help. Thank you.

## ABSTRACT

AN INQUIRY INTO THE EFFECT OF POSITIVE AND NEGATIVE  
EXPECTANCY ON HYPNOTIZABILITY AS MEASURED ON THE  
STANFORD HYPNOTIC SUSCEPTIBILITY SCALE: FORM A

SEPTEMBER 1993

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The purpose of this study was to detect the influence, if any, of high or low expectancy with regard to hypnotizability on the part of the hypnotist and subject. The result was measured by the subject's score on the SHSS:A . The time each subject took to complete the SHSS:A was also recorded.

Data were analyzed using a 2x2 analysis of variance ( ANOVA ) with experimenter expectancy ( high vs. low ) and subject expectancy (high vs. low ) as variables ( as shown in table 4.1). Two measures were examined : time taken to complete the SHSS:A and the score received.

Since individual experimenters may differ in administration of the SHSS:A even with safeguards to insure uniformity, possible differences in experimenter performance were examined in a 1 - way ANOVA with the experimenters as the variables (3 levels) .

There were no significant differences between the scores of any of the subject groups and no interaction found between any of them. There was a significant result in the time taken for the high expectancy subjects (HSE ) which was shorter (36.438 min.) than the low expectancy subjects (LSE) (41.471min.).

The primary result does not support the contention that hypnotizability as measured on the SHSS:A is affected significantly by the expectations of either the subject or the hypnotist.

The secondary result indicates a significant effect on the subjects who were told that they were highly hypnotizable which was not directly measured by the SHSS:A, ie., time. That may be the result of an interaction between those subjects and the hypnotists. They may have communicated their heightened belief in their .  
hypnotizability to the hypnotists in subtle ways which enabled the hypnotists to deliver the hypnotizability test more quickly.



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# CHAPTER I

## INTRODUCTION

### Overview

In this study the expectancy of undergraduate student subjects and graduate student experimenters was manipulated to determine its' effect on hypnotizability. Student subjects were randomly assigned to a high or low hypnotic expectancy group. These same students were also randomly assigned to experimenters and designated as high or low hypnotic ability subjects. The Stanford Hypnotic Susceptibility Scale: form A ( Weitzenhoffer and Hilgard, 1959 ), was adapted for the purpose of measuring a subject's hypnotizability.

The present research is an exploration of the effect of subject expectancy on hypnotizability, the effect of hypnotist expectancy on subject hypnotizability, and any interaction between the two that may be observed.

Subject hypnotizability was chosen for this inquiry because of the lively contemporary debate as to the nature of the hypnotic response, because hypnosis is often employed as a treatment in the clinical setting and, because hypnotizability is readily measured.

The present study represents an attempt to inquire into the effect of positive or negative expectancy on the part of client and clinician and its' possible effect on treatment outcome; in this case, hypnotizability.

## Purpose

The purpose of this study was to compare the hypnotic performance of subjects who were told that they were good subjects for hypnosis with the performance of those who were told that they were likely to be poor subjects, as well as the performance of subjects whose experimenter believed them to be good subjects for hypnosis and those whose experimenter believed them to be poor subjects for hypnosis, irrespective of the subjects' own expectation.

## Background and Rationale

Hypnotizability is the ability of an individual to respond in the hypnotic context differently than individuals typically respond in a non hypnotic context. Usually this includes actions described by the individual and/ or the hypnotist as non volitional or beyond the individual's normal ability. These may include raising one's hand in a manner perceived as involuntary or an ability to withstand more pain in the hypnotic context than in the non hypnotic context. Hypnotizability, as opposed to the *state* of hypnosis, can be measured. Researchers have found that this ability can be measured and that there is a curve of high to low ability individuals. Generally, this ability has been found to be stable over time, though Kirsch (1990), expresses the view that what has been taken as a stable trait may be

the result of an unmeasured and unchanged expectancy on the part of the subject.

Although these behaviors are reproducible in laboratory and clinical settings there is very little consensus about the nature of the hypnotic experience. Historically hypnosis has been viewed as a state of consciousness, perhaps akin to sleep, into which the individual was "put" by an hypnotist and from which he or she could not awaken until called forth by the hypnotist. While in this "state", it was believed, the individual was especially susceptible to being influenced by the hypnotist.

What we now call hypnotic behavior originated with Franz Anton Mesmer (1736-1815). Mesmer believed that human behavior was influenced by the stars and other aspects of the natural world. He experimented with passing magnets over the bodies of hysterical patients to some good effect. Over time this treatment became more and more elaborate and theatrical which led to the disparagement of Mesmer by many of his contemporaries (Chertok, 1986).

The Marquis de Puysegur (1751-1825) was a student of Mesmer who believed that there was importance to the relationship between the Mesmerist and the patient. An English physician, James Braid (1795-1860) gave Mesmerism its' modern name of hypnosis (Chertok, 1986; Hilgard, 1986) and emphasized the relationship between the hypnotist and the patient, including the importance of suggestion made by the hypnotist (Chertok, 1986).

In the latter part of the 18<sup>th</sup> century Jean- Martin Charcot, a noted neurologist, studied hypnosis and enhanced its respectability by virtue of his reputation. He believed, however, that hypnotic phenomena were the manifestations of a mental disorder rather than natural and reproducible in the normal person. Pierre Janet (1859-1947) introduced the concept of dissociation and the word "sub-conscious " both of which are important in modern day explanations of hypnotic phenomena.

Since the time of Braid there has been a belief that something special took place within the hypnotized person. Sarbin (1989) suggested that in the eighteenth and early nineteenth century it was believed that the power in hypnosis came from the hypnotist and that the effect of hypnosis was something that the hypnotist had done to the patient. As psychology shifted its focus toward intrapsychic explanations of behavior, an intrapsychic paradigm for hypnosis became more prevalent. This is perhaps best exemplified by the work of Sigmund Freud (1856-1939) who introduced psychoanalysis with his theory of the unconscious which featured the concept of repression (Hilgard,1986). Freud, at first used hypnosis as a way of gaining access to the unconscious to retrieve the repressed memories of the individual. He later abandoned his use of hypnosis in favor of free association; but the relationship between hypnosis and the unconscious had been firmly established (Frank,1974; Hilgard and Hilgard,1975; Hilgard,1986 ).

Beliefs regarding hypnosis changed very little during the first part of this century. Hypnosis remained a state entered by an individual who was placed there by, and subject to, the power of the hypnotist. Recently this view has been increasingly challenged. Sarbin (1989) credits Clark Hull with formulating the first social psychological construct of hypnosis in the 1930's. It wasn't, however, until the 1950's and 60's when T.X. Barber and his associates began to work experimentally to challenge the traditional understanding of what hypnosis might be that the theoretical foundation of the understanding of hypnosis began to shift. The major new explanation was the social psychological (Chaves, 1989; Jones and Flynn, 1989; Sarbin, 1989; Spanos, 1989). According to this position, subjects respond or do not respond to hypnotic suggestions in accordance with their attitudes, expectations and interpretation of the often ambiguous demands that constitute the hypnotic situation. Among the new researchers are those from a social psychology perspective who have called into question one of the most basic tenets of hypnosis, the existence of a "state" of hypnosis. These non-state theorists do not dispute the existence of behaviors others term "hypnotic". They do propose alternate explanations for those behaviors, which they deem adequate without positing a "state" of hypnosis. This view of the hypnotic interaction is salient to the present study and will be discussed further.



## What is hypnosis

There is still no clear consensus as to what hypnosis is. Like many other aspects of psychology there are almost as many theoretical positions as there are researchers and clinicians. Spanos and Chaves (1989 ) write that hypnotic researchers have been looking for an "hypnotic essence" that has yet to be found. In the past an operational definition often sufficed. Operationally, when a person displayed "hypnotic" behaviors after an hypnotic induction had been performed, he or she was said to have been hypnotized. This operational definition, however, no longer seems sufficient to many working in the field.

T.X. Barber and Sheryl Wilson (1977 ) have postulated that subjects are responsive to the type of suggestions usually thought to measure hypnotic responsiveness regardless of whether or not they have received an hypnotic induction. Unfortunately, a problem with this research as with that of many others, is a lack of standards with regard to hypnotic induction. There is no element that all researchers would agree needs to be included to differentiate an hypnotic induction from some other type of statement or speech. Many clinicians rely on various types of subtle wording, tones of voice and even boring repetition.

Barber and Wilson conducted an experiment in which one group of students was hypnotized and another group was instructed to "think with" the instructions for "creative imagination", and a third, control group were just told to concentrate on the suggestions. All three groups were then tested as

to their response to hypnotic-like phenomena. Consonant with the authors expectations there were significant differences between the subject groups and the most responsive was the "think with " group. There was no significant difference between the hypnosis group and the control.

In this experiment a group of student nurse volunteers was told that they were to be tested for " creative imagination." The subjects were divided into 3 groups : 22 students were assigned to each group. The groups were: 1. a "think with " group, 2; a control group and 3; an hypnosis group. The " think with" group was told to "think with" the suggestions for imagination, the control group was told to concentrate on the suggestions and the hypnosis group recieved an eleven minute tape recorded induction. The authors assumed that an hypnotic induction is limited to an interaction in which the subject is specifically told to go into hypnosis. In this case the " think with" subjects were instructed, in part, as follows: " A third way I could respond, and this is the way in which I benefit most from the test, is when somebody tells me, ' close your eyes and imagine you are watching a t.v. program.' I let myself think of a t.v. program that I like or one that I can remember easily, like All In the Family : Then I close my eyes {experimenter closes her eyes} and tell myself that I am looking at Archie Bunker and I see him in my mind's eye. I visualize him walking in his front door, in his own way, hanging up his hat and jacket on the hook by the door as he calls to Edith that he is at home and then yells at Michael to get up off his chair. And I feel as if I'm looking at the

t.v. program {experimenter opens her eyes} and I find this to be a very interesting experience" (Barber and Wilson, 1977).

A question that was not raised by the authors is to what extent the instructions for the "think with " group differed from an hypnotic induction since these "instructions " were similar in many ways to the "inductions " used by others. This is critical since the presumption of the authors is that the "think with" subject group was not an hypnosis group and that their ability to display hypnotic-like behaviors demonstrates these behaviors to be outside of hypnosis. The type of concentration and absorption required by the "think with" subjects was typical of that required by an hypnotic induction whether or not directions to " go into hypnosis" are explicitly presented. It may also be unsurprising that the " think with " group responded positively in that their experience was directed in person by an investigator while the "hypnosis" group was given a taped induction.

Similarly, when researchers construct "cognitive" interventions they can closely resemble hypnotic ones, in fact they may be nearly indistinguishable.

In " Cognitive Strategies for Acute and Chronic Pain Management" Chaves' (1989 ) list of "pain coping strategies" is a menu of what in another context could just as easily be termed "hypnotic strategies for pain control."

This list includes:

1. direct suggestions for attenuation of pain;

2. relaxation suggestions , often accompanied by direction of attention to breathing ;
3. transformation of pain sensation, e.g., by reducing its' size, by moving it to another part of the body where it is more benign, or by altering its' quality;
4. suggesting sensations incompatible with pain, e.g., numbness;
5. performing a cognitive analysis of the pain sensation, resolving it into such components as pressure, heat, coldness, etc.;
6. dissociation: for example, thinking of one's body as a machine needing repair, or mentally amputating a painful body part;
7. simple distraction: facilitating absorption in a pattern of thought that leaves less attention available for concentrating on the pain;
8. time distortion: altering the perception of time when pain is being experienced, e.g. suggesting that time pass with the speed of light;
9. age - regression / progression suggestions: suggestions to become reabsorbed in thoughts, ideas, and feelings that were enjoyable prior to the onset of pain or will be enjoyable in the future.
10. transformation of the painful stimulus into a benign one.
11. modification of catastrophizing ideation experienced by the patient ( p.269-270 ).

This is an extremely comprehensive list of what an hypnotist might recognize as *hypnotic* interventions many of which can be found *in that*

*context* in the Lanktons' book The Answer Within: A Clinical Framework of Ericksonian Hypnotherapy (Lankton & Lankton, 1983).

There are few apparent differences between these "cognitive strategies" and the hypnotic one used by the Lanktons and others except for the hypnotic induction. Many present day hypnotists are not convinced of the necessity for a formal induction, and prefer to use careful hypnotic phrasing to focus and concentrate the subject's attention.

These examples demonstrate the dilemma facing the experimenter. In order to investigate the nature of the hypnotic experience it is crucial to be able to differentiate hypnosis from not hypnosis. Is an hypnotic context one that is defined by the experimenter as hypnotic? If it is defined in some other way, for instance, by the production of hypnotic - like behaviors, then is hypnosis any situation in which these behaviors are present? In the past hypnosis has been defined by the hypnotic context as understood by the particular experimenter or clinician and/or by the manifestation of certain expected subject behaviors . It is now clear that these behaviors can be produced in an altered context and understood differently.

#### "State vs Non-state"

The hypnotic literature may now be divided into two conceptual frames regarding the nature of hypnosis. The first is the "state" or "special state" of hypnosis position taken by many of the researchers and clinicians in the field.

It has long been assumed that, because individuals who have been hypnotized do counter-expectational things, i.e., lift a hand to the face and keep it there when it has been suggested that the hand is light, when one would assume this to be an uncomfortable position to maintain, that this must be caused by a special state of consciousness (Coe and Sarbin, 1977). Historically this was an unexamined assumption. It is due to the challenge of the non-state theorists that "state theory" has emerged. This is critical to the present inquiry because of the "non-state" emphasis on hypnosis as part of the social context.

The opposing position is the "non-state" theoretical view of hypnosis. This view is from the cognitive or social psychology perspective, which suggests that there is no "state" of hypnosis but that hypnotic response is a learned response and part of the hypnotic context or interaction.

Ernest and Josephine Hilgard (1975) suggest that the disagreements between researchers as to what constitutes hypnosis have more to do with the interpretation of facts rather than the facts themselves. Many different researchers have obtained similar results and interpreted them differently. The Hilgards fault the "state" of hypnosis adherents for a tendency toward tautology. When a person behaves in a certain way we say that he is hypnotized. How do we know that he is hypnotized? Because he behaves that way. There are certain behaviors that have come to be seen to indicate a state of hypnosis. The state is then inferred from those behaviors.

Another criticism of state theorists arises from their acceptance of client and subject report as to their experience of hypnosis. Social psychological theorists are wary of this as they deem self report unreliable (Sarbin, 1989).

Since there is no certain physiological measure of the hypnotic "state" and no behavioral criteria which positively exclude other explanations, researchers are in the awkward position of investigating a group of phenomena which for the moment, defy reliable definition. From this come numerous difficulties in research design.

#### Measuring Hypnotic Response

The constellation of behaviors which comprise the hypnotic response are measurable and it is hoped that by manipulating the context in which these behaviors are produced and measuring the subsequent response one can identify some ingredient or ingredients that are necessary for the production of hypnotic behavior.

In the present inquiry a standardized hypnotic induction and an objective measurement of hypnotic behavior was used. This was the Stanford Hypnotic Susceptibility Scale: form A which was modified for this research.

It might be expected that if the hypnotic response is based at least in part on the social context in which the subject and experimenter act out the role of hypnotist and hypnotized interactional factors might play a part in the hypnotic response. It is reasonable to hypothesize that these factors could

include the expectancy of the subject that he or she is hypnotizable, and thus, likely to experience hypnosis. It is equally reasonable to hypothesize the hypnotist's expectancy that this subject is a good candidate for hypnosis and is likely to be successfully hypnotized, would affect the outcome.

The present experiment is an inquiry into expectancy as a social factor with an assumption that hypnotic response is in some way controlled by the interaction between the hypnotist and the hypnotized person and that the expectancy of a positive or negative response could be an important factor in the successful or unsuccessful production of hypnotic response.

Several studies have been carried out to determine whether or not a subject's expectation of hypnotizability is a significant factor in an individual's subsequent hypnotizability. It has been found that low expectation is more likely to depress a formerly high score than high expectation is to raise a formerly low one. (Saavedra and Miller, 1982), although Gregory and Diamond (1973) were successful in raising low scores significantly by giving low hypnotizable individuals high expectations of their hypnotizability.

A review of the literature did not reveal any inquiry into the possibilities of hypnotist expectancy as a factor in subject hypnotic response. Given the recent interest in the interpersonal aspects of hypnotic response this would appear to be a natural line of inquiry. The present study was designed to measure the effect, if any, of the positive and negative



expectancy of both hypnotist and subject, and any interaction between the two.

### Problem Statement

The following hypotheses were tested:

1. No significant differences in hypnotic susceptibility on the Stanford Hypnotic Susceptibility Scale: form A ( SHSS:A ), will be measured between high and low expectancy subjects.
2. No significant differences on the SHSS:A will be measured between subjects designated high or low ability to the experimenters ( high and low experimenter expectancy ).
3. No significant interactions will be measured among the four expectancy groups: a. high subject / high experimenter, b. high subject / low experimenter, c. low subject / high experimenter, d. low subject / low experimenter.
4. No significant differences will be found between the groups in the time taken to complete the SHSS:A

### Limitations of the Study

1. This study was limited in its male / female ratio in the composition of its subject members. An effort was made to secure an equal number of male and female subjects. This was hindered by the subject pool which was drawn from two introductory human development classes in which there was a preponderance of female students. It is therefore not possible to

distinguish differences between the performance of the male and female subjects, if any.

2. Subjects were contacted after their participation by telephone for a survey in which they were asked for an assessment of their preparticipation view of their own hypnotizability. This would have been better done before participation for a more accurate assessment since many subjects were unclear as to their previous views as to their own hypnotizability. If one wants to experiment with changing expectancy it would be good to know if one has actually done this and not assume an attitude manipulation.

3. A two part research project in which the expectancy intervention was assessed for impact on the research subjects would have been a better design and would give more reliable results.

4. More information would have been gained if the subjects had been videotaped. There might then be a more definite explanation for the results which were obtained.

## CHAPTER II

### LITERATURE REVIEW

#### Subject Expectancy

In the previous discussion of the present day understanding of hypnosis two basic premises were presented: the state and non-state views. While it could be argued from either position that expectancy played a role in hypnotic responsiveness, it is the non-state researcher who has been most likely to emphasize the role of expectancy. Kirsch (1990) has expressed the belief that expectancy may be an essential part of the hypnotic response and that this has been responsible for the observation that an individual's hypnotic response had been observed to remain stable over time. He believes that this may be the result of the individual's expectancy remaining constant between hypnotic experiences rather than an indication that hypnotizability is a stable trait. There has, however, been a dearth of research in the area of the effect of expectancy on hypnotic susceptibility.

In the past twenty years there have been two major research efforts to determine the effect of expectancy on hypnotic response. In one instance it was found that low expectation was more likely to depress a formerly high score than high expectation was to raise a formerly low one (Saavedra and Miller, 1982). Gregory and Diamond (1973) however, were successful in raising scores significantly by giving subjects increased expectations of their own hypnotizability along with written information about hypnotizability. Saavedra and Miller's (1982) subjects were 138 undergraduate students

(75 female and 63 male ) who were divided into 3 groups which were told, respectively, that they were either "high", " moderate" or " low" hypnotizables. There was also a " no expectation" control group. The experimenters' hypothesis was that the production of an hypnotic response might be affected by expectancy as a demand characteristic of the experimental situation. Several measurement scales were given the subjects during the first meeting with the experimenters. The subjects were told that these scales would enable the experimenters to accurately predict the subject's hypnotizability.

In the second session the subjects were randomly assigned to the expectancy groups and the subjects in the expectancy conditions were asked to fill out a questionnaire in which they were asked how much confidence they had in the "hypnotizability coefficient" that they had been told was the basis for their group placement. All of the subjects were given the Harvard Group scale of Hypnotic Susceptibility (HGSHS): form A ( Shor and Orne, 1962 ). This was given with a tape recorded induction. A main effect was obtained in that the scores of the low expectancy group were significantly lower than those in the other 3 groups. While the significance of this result is not certain, one can speculate that it is easier to keep an individual from performing up to his ability with discouragement than it is to raise ability.

In the Gregory and Diamond study 40 undergraduate students who had previously taken the HGSHS and scored in the moderate range (4-7 )

were randomly assigned to one of four groups. These groups consisted of two positive expectancy, one informational, and one control. On arriving for the second session each of the subjects was greeted by an experimenter and asked if he / she would be willing to donate a few minutes to another study, a personality experiment which required more subjects, in return for feedback as to their personality type. All the subjects agreed. All four groups were given positive feedback from the "personality test." The two positive expectancy groups were told that their "high intelligence, creativity" etc. correlated highly with hypnotizability and they would, therefore, make good hypnosis subjects. One high expectancy group and one written instruction only group were given materials on hypnosis to read and were instructed to read them in the 10 minutes before being hypnotized while the matching two groups were given magazines to read in the waiting room during that same time. All subjects were then given the Stanford Scale of Hypnotic Susceptibility: form B. The experimenters found that the combination of positive expectancy and written instructions were effective as a means of raising hypnotic susceptibility significantly. There was no effect for written instructions or heightened expectancy alone.

Several of the features of this design make it difficult to know how one would generalize these findings.

1. From 200 subjects who took the Harvard Group Scale of Hypnotic Susceptibility, 40 were chosen as subjects by virtue of having achieved a "moderate " score of between 4 and 7. Since this was not a random sample it

may not be generalizable. Perhaps an increase would more likely occur in previously low scoring individuals which would raise the overall gain in a group in which they were included.

2. Neither the high expectancy group nor the informational group alone received a higher score than the practice only group. The combined high expectancy/ informational group received a higher score than the practice only group.

3. What is being measured is not a comparison among the groups on the SHSS:B but a difference in mean scores between the two instruments. It is merely assumed that the interventions resulted in the difference.

4. The highest scoring group on the SHSS:B was "written instructions present/ positive expectancy absent."

The experimenters in this case hypothesized that this result was due to decreased anxiety on the part of the subjects in these two conditions which then allowed them to be more responsive to hypnotic "cues". It is not clear from the discussion what those cues were. They also did not measure anxiety between the conditions so it is difficult to know if there is any merit to these assertions.

The idea of positive expectancy, on the part of the client or therapist, as an influence for change is not a new one in the history of counseling and therapy. Clinicians who practice hypnosis have long valued a positive climate for change in the relationship between the therapist and client (Lankton and Lankton, 1983). Many researchers, however, have assumed

hypnotizability to be a trait, differing among individuals but stable over time within any given individual. It has now been demonstrated that subject expectancy can be a factor in hypnotic response. This, of course does not rule out other factors which may be as, or more important, in producing hypnotic behavior.

Since hypnosis in the clinical context is a shared social experience between clinician and client it suggests the possibility that clinician expectancy may also be a factor in the client's response. One of the factors which separates the clinical from the experimental context is the desire of the client for help or relief.

When a client consults a clinician he/she is often in distress and looks to the clinician as an expert who may be able to provide relief. The deeper the original distress, the more a client's positive response to the therapy is reinforced. This is a very different context from the experimental one in which the subject is accommodating the experimenter but has no particular stake in the outcome of the experiment.

A search of the literature has found no research conducted to discover the effect of experimenter expectancy on the performance of the subject. The present study was conceived as an exploration of this factor as a possibility, with the additional question of a possible positive interaction between experimenter and subject expectancy.

## CHAPTER III

### METHOD

#### Subjects

In this study two variables were manipulated, experimenter expectancy (EE), and subject expectancy (SE ).

The study was conducted with two sets of subjects. The graduate students who will be referred to as the experimenters or hypnotists were also subjects in the study. They were naive to the experimental design and their expectancies with regard to the hypnotizability of the undergraduate subjects were manipulated as well as the expectancy of the undergraduate subjects who were the ostensible objects of the experiment.

The 33 undergraduate subjects, both male and female, were recruited from two undergraduate human development classes at the University of Massachusetts. There were a total of 9 men and 24 women. It had been intended that there be an equal number of male and female subjects. This was not possible due to the preponderance of female students in this subject area. It was not expected that any differences in hypnotizability would be found between the male and female members of the sample. In the norming sample of undergraduate students for the Stanford Hypnotic Susceptibility Scale : forms A and B ( SHSS:A and B ) no significant difference in hypnotizability between the male and female students was found. More recently Isenberg (1993 ) found no difference in hypnotizability between deaf and hearing men and women. In that study the Stanford



Hypnotizability Scale: form C was employed. It would have been informative, however, to have been able to discover whether or not there was gender difference with regard to expectancy.

### Instruments

The instruments used in this study were the Stanford Hypnotic Susceptibility Scale: form A ( SHSS:A ) which was edited slightly for this administration and the Latent Hypnotic Ability Scale ( LHAS ), a bogus instrument developed by the author and administered to all prospective undergraduate subjects as the method of expectancy manipulation.

The LHAS was administered to approximately 100 students in two undergraduate human development classes. This is a Likert type questionnaire of 20 items designed to give the students the impression that they were being assessed for something called "Latent Hypnotizability."

The SHSS:A was developed as a standardized measure of hypnotizability. It included both ideomotor items such as arm rigidity and cognitive items such as hallucination ( of a mosquito ). Subjects received a score of (+ ), pass or (- ), fail, on each item. This resulted in a numerical score of between 0 and 12 on the standard scale. For this study it was thought best to exclude the first item: postural Sway. This item consists of an instruction to the subject to sway backward until the subject loses balance and falls, to be caught by the experimenter. Because it required physical contact between the students and because of the remote but possible

chance of injury this item was omitted. Since one of the items was omitted on this revised scale the possible scores fell between 0 and 11.

There was no record on the score of the time taken by each subject to complete the Scale. Because of this and because it was felt that there might be significance to the promptness of the subject response, the hypnotists were asked to keep a record of the time it took each subject to complete the entire SHSS:A.

The purpose of administering this test was to discover the differences, if any, in the hypnotizability scores of the subjects due to expectancy manipulation.

#### Procedure

Each of the students completing the bogus test was subsequently contacted by telephone. The students were told randomly either that they had scored in the group very likely to be hypnotized or very unlikely to be hypnotized and were invited to become further participants in the experiment which would consist of one session of hypnosis. If they agreed to participate further they were told that they would be contacted by a graduate student hypnotist who would make an appointment with them at a convenient time. They were further requested not to share the assessment scale results with the hypnotist. The undergraduate students were not offered any remuneration or academic credit for their participation.

There were three hypnotists recruited from among students who had completed a graduate level course in hypnosis. The hypnotists were naive to the experimental design. They were told that the students had been given a written test of hypnotizability and that the research was being conducted in order to compare the results of the two instruments. The hypnotists were each paid a token amount for their participation in this study.

The hypnotists met as a group and practiced giving the Stanford Hypnotic Susceptibility Scale : form A to ensure as much uniformity as possible between experimenters.

Each of the undergraduate students was randomly assigned a high or low hypnotizability score which was placed next to his or her name on the assignment sheet given to the hypnotist. In order to insure that the hypnotists noticed the high and low designations the students names were arranged into two groups: one high and one low.

There was no relationship between the groups to which the subjects were assigned for subject expectancy and those to which they were assigned for experimenter expectancy. These were separate, random procedures so that in some cases the expectancy designation of high or low coincided between the two groups and in some it did not. This created four expectancy groups: one group in which both experimenter and subject believed the subject to be highly hypnotizable, one in which both experimenter and subject believed the subject to be a poor candidate for hypnosis and two combined groups. There were approximately equal

numbers of students in each condition. Both hypnotists and subjects were asked not to discuss the results of the written test with each other.

To insure optimum uniformity of administration of the SHSS:A all the experimenters met with the principal investigator and practiced administering the instrument. It was emphasized that the written instructions were to be carefully followed. They practiced their oral delivery of the instructions and commands and were advised on how to answer any questions put to them by the subjects.

When the subject arrived at the meeting with the hypnotist he or she was given a written consent form with an explanation of the procedure and the name of the principal investigator. The subject was then given the Stanford Hypnotic Susceptibility Scale: form A ( SHSS:A ) revised.

Student subjects were then contacted by phone and given the participant questionnaire in order to gather data as to the efficacy of the expectancy intervention (LHAS).

Subsequent to the completion of the experiment all student subjects were sent the participant information form to inform them as to the real purpose and procedures of the experiment and to let them know that they had been falsely informed as to their hypnotizability.

## CHAPTER IV

### DATA ANALYSIS

#### Data Analysis

Data were analyzed using a 2x2 analysis of variance ( ANOVA ) with experimenter expectancy ( high vs. low ) and subject expectancy (high vs. low ) as variables (see table 4.1). Two measures were examined: time and score. Given that individual experimenters may differ in administration of the SHSS:A even with safeguards to insure uniformity, possible differences in experimenter performance were examined in a 1 - way ANOVA with the experimenter as the variables (3 levels).

Dependent measures generated in this study included:

1. the score on the 11 item Stanford Hypnotic Susceptibility Scale: Form A (modified );
2. the time, in minutes, of each subject completing the SHSS:A.

#### Results

It was hypothesized that either subject or experimenter expectancy, or an interaction between the two would influence the subjects' hypnotizability as measured on the SHSS:A. It was found that neither hypnotist or subject expectancy, whether high or low influenced the subjects' score, ( as shown in Table 4.2) nor was there any significant interaction ( as shown in table 4.4 ) . However, when examining the time subjects took to complete the test, a significant effect was detected ( as shown in table 4.3 and 4.5). All subject groups showed at least a moderate level of hypnotic response. Subjects

with high expectancy spent less time completing the SHSS:A. This finding was uninfluenced by experimenter expectancy.

Although there were three experimenters there was no significant difference in SHSS:A score by experimenter.

Table 4.1

Expectancy groups

		Experimenter Expectancy	
		high	low
Subject Expectancy	high	experimenter and subject expectancy: high	experimenter expectancy: low subject expectancy: high
	low	experimenter expectancy: high subject expectancy: low	experimenter and subject expectancy: low

Table 4.2

Mean SHSS:A scores and times

group		score	s.d.	time (in min.)	s.d.
sub. expectancy	low	5.59	3.02	41.471	4.849
	high	6.25	3.00	36.438	5.573
exp. expectancy	low	5.62	3.12	40.000	5.762
	high	6.18	2.92	38.118	5.721

Even though no main effect was discovered (significant difference in score), when the time taken by each subject to complete the SHSS:A was analyzed a significant difference was found. Those subjects from the high subject expectancy group finished the SHSS: A significantly faster (average time: 36.44 minutes ) than subjects from the low subject expectancy group ( average time: 41.47 minutes ). The range of time taken to complete the SHSS:A was 28 - 45 minutes. There was no significant effect for time with regard to hypnotist expectancy. There are no references in the literature to the significance of the time taken to complete the scale.



Table 4.3  
Time statistics

Variables	F value	P value	df
SE	6.853	0.014	1/29
EE	0.607	NS	
SE & EE	0.091	NS	

(F=6.853, df = 1/29, p> .014)

Table 4.4

SHSS:A scores

Experimenter Expectancy

		high	low
Subject	high	6.00	6.57
		s.d. 3.00	s.d. 3.21
Expectancy	high	6.38	4.89
	low	s.d. 3.02	s.d. 3.02

Table 4.5

SHSS: A mean times in minutes

Experimenter Expectancy

		high	low
Subject	high	35.56	37.57
		s.d. 4.64	s.d. 6.80
Expectancy	high	41.00	41.89
	low	s.d. 5.68	s.d. 4.29

## CHAPTER V

### DISCUSSION, SUMMARY AND CONCLUSIONS

#### Discussion

The purpose of this study was to discover the effect, if any, of a subject's or an experimenter's expectancy on an individual's ability to be hypnotized. It was hypothesized that expectancy would play a role in hypnotizability as measured on the Stanford Hypnotic Susceptibility Scale: form A ( SHSS:A ).

Hypnosis has traditionally been viewed as a subjective experience with very little for the clinician or researcher to measure beyond the subject's behavioral responses while in the condition of hypnosis. There has been an aura of mystery about it exemplified by the word "trance" sometimes used to describe what a person in hypnosis experiences.

In recent years experimenters have tried to develop more objective variables in this area; work which has been fraught with difficulty. It was hoped that this research could introduce some new information on the nature of the hypnotic experience. It was hypothesized that subjects with high expectancy might perform *better*, ie. achieve a higher score, on the SHSS:A. The high expectancy subjects did not score significantly higher,

nor did those whose experimenter had a high expectancy of their performance, nor was there any apparent interaction.

The subjects with high expectancy, however, did perform faster. It is interesting to speculate as to the cause for such a result. It is impossible to know with any precision which tasks were performed more quickly or slowly by each group without a videotape with which their performance could be reviewed. Since most of the items on the scale are challenge items, ie. the subject was told that it would be difficult to do something and then challenged to try to do it, an unusually quick response would cause the subject to fail the item. For example:

#### SHSS:A Item Analysis

"8.a. VERBAL INHIBITION (NAME) (Time :50 seconds)

You are very relaxed now... deeply relaxed... think how hard it might be to talk while so deeply relaxed... perhaps as hard to talk as when asleep ... I wonder if you could say your name. I really don't think you could... you might try a little later when I tell you to ... but I think you will find it *quite* difficult... Why don't you try to say your name now... *just try* to say it. (Allow 10 seconds )

**(If name spoken:)** That's all right .You see again how you have to make an effort to do something normally as easily as saying your name. You can say it much more easily now. Say it again... That's right, now relax.

**(If name not spoken:)** Thats all right... stop trying and relax. You can say your name easily now...Go ahead and say it... That's right. Now relax.

Record score. Score (+) if name unspoken in 10 seconds."  
(Weitzenhoffer and Hilgard, 1959).

It should be clear from this example that if one were to respond quickly,ie. say one's name, the item would be failed. If this were done repeatedly the subject would recieve a low score on the SHSS:A. The high expectancy (HSE) subjects scored higher on average, though insignificantly higher, than did the low expectancy (LSE) subjects. Since there are only two items on the SHSS:A in which a fast response results in a pass on the item, the answer to the question of how these subjects performed faster, must be found elsewhere.

All of the hypnotist experimenters had been trained in hypnosis. They were taught to pay close attention to client response including physiological indicators such as breathing, posture, and relaxation of facial muscles. It could be hypothesized that the high expectancy subjects (HSE ) were more responsive in subtle ways that were percieved interpersonally by the experimenters, trained to respond to such cues, who then proceeded faster with more confidence with these subjects. Perhaps the experimenters spoke more quickly with these subjects, or went from section to section more quickly because they appeared to be more responsive in some way.

Those subjects whom the experimenters expected to be good candidates did not complete the tasks more quickly. Had the experimenters been untrained they might have depended more on the subject designation than on their own observation. Trained experimenters would have been more responsive to cues from the subject.

Future research might focus on the more subtle responses of the high or low expectation subjects as well as to their production of gross hypnotic behaviors and to the interaction between the hypnotist and subject for more information about the nature of the hypnotic response which is still, for the most part, not well understood.

During the conduct of this experiment it became apparent that a weakness of this research and others was a reliance on untested assumptions and instruments. It was assumed that if subjects were given a test with what appeared to be good face validity and were told that this measured something, ie. hypnotizability, that their expectation of their ability to be hypnotized would be successfully manipulated. The telephone interview with the subjects indicated that this may not always be the case: Of 33 subjects, 28 were reached by phone for the questionnaire. Of those 28, 13 indicated that the score that they had been given on the bogus test opposed their pre-test belief. The remaining subjects indicated that they were unsurprised by what they were told about their hypnotizability. Some of each group, however, could not say that they had held a previous view with any conviction. Of the 13 subjects who replied that what they were told

opposed their original belief, 6 indicated that their expectation had been altered by the reported bogus score.

### Hypotheses

It is difficult to know what to make of this information in light of the very significant finding with regard to time for the high expectancy subjects. It was certain, however, that whatever a subject's pretest belief had been, it was now too late to ascertain this with any precision.

It could be hypothesized that many of the 15 subjects who now respond that the LHAS "result" confirmed their prior belief have merely integrated that result in such a way that they can no longer remember their former belief.

What is clear is that the efficacy of an intervention cannot be assumed. A better research design would consist of two parts. The first part of a subsequent investigation of expectancy would be a pilot study designed to test the efficacy of the expectancy manipulation. The body of the research would then rest on a more solid foundation. If the two parts were to be combined and the same subjects used, the assessment of the efficacy of the instrument might alert the subjects to the nature of the research and contaminate that effort. This problem would not occur if the bogus instrument were tested on one group of subjects and used on a similar group prior to its use on the experimental group.

A focus of this research was the raising or lowering of subjects' performance by giving the subjects and experimenters false data about the subjects' abilities. There are other methods which we did not consider which might be effective in themselves or combined with this approach. For instance, no effort was made to capitalize on the possible benefits of expertise as perceived by the subjects. It would be interesting in future research to investigate any differences between subjects who were told that they were being hypnotized by known experts in the field and those who were told that they were working with a novice. This might be combined with a manipulation of the subjects' belief in their own abilities.

#### Summary and Conclusions

The purpose of this study was to detect the influence, if any, of high or low expectancy with regard to hypnotizability on the part of the hypnotist and subject. The result was measured by the subject's score on the SHSS:A . The time each subject took to complete the SHSS:A was also recorded.

It was hoped that a positive result would give some reliable information about the nature of the hypnotic response.

There were no significant differences between the scores of any of the subject groups and no interaction found between any of them. There was a significant result in the time taken for the high expectancy subjects (HSE ) which was shorter (36.438 min.) than the low expectancy subjects (LSE) (41.471 min.).



The primary result does not support the contention that hypnotizability as measured on the SHSS:A is affected significantly by the expectations of either the subject or the hypnotist.

The secondary result indicates a significant effect on the subjects who were told that they were highly hypnotizable which was not directly measured by the SHSS:A, ie., time. That may be the result of an interaction between those subjects and the hypnotists. They may have communicated their heightened belief in their hypnotizability to the hypnotists in subtle ways which enabled the hypnotists to deliver the hypnotizability test more quickly.

At this time it is not possible to say precisely what caused the secondary result with regard to time, but it would be interesting as a possible direction for future research to videotape similar groups of subjects and analyze the interpersonal cues between subject and hypnotist for information as to possible differences.

At the outset it was hoped that this research would provide information useful to clinicians who use hypnosis. For clinical purposes the present results are ambiguous. Although all subjects groups achieved at least a moderate response on the SHSS:A the two high expectancy groups did not achieve significantly higher scores than the two low expectancy groups. We do not have a certain understanding of the mechanism for the positive response with regard to time.

It should always be kept in mind that the comparison between the experimental and clinical context is limited. The two are different in very important ways. First, a client comes because he or she is in distress and in need of relief. This is a powerful incentive toward a positive response. There is no such reward in the experimental context. Further, in the clinical situation the client is known to the therapist and an intervention is tailored to his or her specific needs. In an experiment all subjects receive the same treatment which they may find irrelevant or uninteresting, limiting their response. And the client has sought out the clinician as an expert who will likely be able to help him or her. The client may also be paying for the treatment which may raise its' perceived value and benefit.

And finally, in the experimental situation care is taken not to sensitize subjects to the demand characteristics of the study. By contrast the clinician uses the relationship to maximize the client's response to the demand characteristics inherent in that situation.

Still, much is yet to be learned about hypnosis, a subject with a long clinical history requiring more experimental evidence to support the beliefs that attend its practice.

## APPENDIX A

### PARTICIPANT CONSENT FORM

My name is Sarah Langdell and I am a Ph.D. Candidate in Counseling Psychology in the School of Education at the University of Massachusetts. I want to thank you for agreeing to participate in my research project. In agreeing to participate you should understand that all subjects will remain anonymous and that you have the right to withdraw from this experiment at any time.

Participation will consist of a written test of hypnotizability followed by one session of hypnosis conducted by a graduate student hypnotist during which you will be tested for actual hypnotic ability. We wish to compare these two measures.

In order that you may be completely informed as to the purpose and methods of this research your experimenter will ask you to leave your name and address in a notebook so that I can mail you more information when the research is completed.

Your participation is appreciated.

Sarah Langdell

## APPENDIX B

### LATENT HYPNOTIC ABILITY SCALE

This is a simple test designed to show whether or not you might be a good candidate for hypnosis. After each question there will be a number scale from 1- never to 7- always. Please circle the number which best represents your answer to each question.

Please answer each question as honestly as you can. There are no right or wrong answers. This is not a personality test. It is only a test of latent ability - that is, an ability which you may not know you have. No one will be excluded from this research on the basis of their answers on this test. It merely enables us to give the experimenter who will be working with you information which will help him or her be more effective. You will remain anonymous.

How often do you have / have you had this experience?

1. Notice details that others may miss.

Never      1      2      3      4      5      6      7      Always

2. Lose yourself in your thoughts.

Never      1      2      3      4      5      6      7      Always

3. Become so absorbed in a book, tv show, or movie that you forget your surroundings.

Never      1      2      3      4      5      6      7      Always

4. Perform a task in a "perfectionistic" manner.

Never      1      2      3      4      5      6      7      Always

5. Have dreams or nightmares so vivid that they feel real even after awakening.

Never      1      2      3      4      5      6      7      Always

6. Find unusual solutions to everyday problems.

Never      1      2      3      4      5      6      7      Always

7. Find that you see things differently from the way others see them.

Never      1      2      3      4      5      6      7      Always

8. Able to imagine very vividly what someone else is describing.

Never      1      2      3      4      5      6      7      Always

9. Able to follow directions carefully and precisely.

Never      1      2      3      4      5      6      7      Always

10. Understand the importance of following instructions.

Never      1      2      3      4      5      6      7      Always

11. Does it take you more than 10 minutes to fall asleep at night?

Never      1      2      3      4      5      6      7      Always

12. Do you like to be always in the company of others ?

Never      1      2      3      4      5      6      7      Always

13. Dining out, would you order something even if you weren't quite sure what it was?

Never      1      2      3      4      5      6      7      Always

14. Do you engage in creative activity such as painting, playing an instrument, photography, etc.?

Never      1      2      3      4      5      6      7      Always

15. Do you enjoy going to museums or plays or listening to music?

Never      1      2      3      4      5      6      7      Always

16. Do you enjoy listening to stories told by others?

Never      1      2      3      4      5      6      7      Always

17. Do you enjoy telling stories?

Never      1      2      3      4      5      6      7      Always

18. Would you agree that "Life resembles fiction."

Never      1      2      3      4      5      6      7      Always

19. Do you play video games?

Never      1      2      3      4      5      6      7      Always

20. Do you wish there were more time in each day?

Never      1      2      3      4      5      6      7      Always



## APPENDIX C

### PARTICIPANT INFORMATION FORM

Dear Student,

Thank you for participating in my research. Now that the project is over it is important for you to know that the subject of my research was the effect of expectation on hypnotizability.

At this time very little is known about the nature of hypnosis. I was investigating the effect a person's belief in his/her hypnotizability and the belief held by the hypnotist, had on a subject's score on the Stanford Hypnotic Susceptibility Scale: form A (SHSS:A) . That was the test given you by the graduate student hypnotist.

When I told you that you had scored either "very likely to be hypnotized" or "very unlikely to be hypnotized" on the Latent Hypnotic Ability Scale this was a false score. I did this in order to have groups of students, some of whom would believe themselves to be highly hypnotizable, and some who would believe themselves to be unlikely to be hypnotized. *What you were told at that time has no bearing on your actual hypnotic ability.*

The hypnotist did not know what you had been told about your hypnotic ability. The hypnotists were also told that some of you scored high on the written test and some scored low, but these groups did not match the subject expectation groups.

The result of my experiment was that the students who were told that they were likely to be easily hypnotized did not score higher on the SHSS: A but they did complete the test significantly faster, about 5 minutes faster, on the average than those who were told that they were unlikely to be successfully hypnotized.

Thank you again for your participation.

Sarah Langdell

## APPENDIX D

### PARTICIPANT QUESTIONNAIRE

1. Before participating in this study, I believed myself to be an easily hypnotizable person.

Yes

No

2. The score I recieved after taking the written test changed my belief about my hypnotizability.

Yes

No

3. The hypnotic experience changed my belief about my hypnotizability.

Yes

No

4. I felt that the hypnotist believed me to be a highly hypnotizable person.

Yes

No

5. I enjoyed the hypnotic experience.

Yes

No

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