





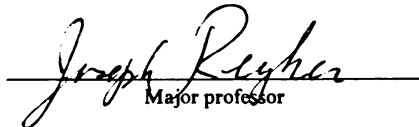
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AN EMPIRICAL STUDY OF SIGMUND FREUD'S  
COUNTER-WILL AND HYPNOSIS THEORIES  
presented by

Aaron David Werbel

has been accepted towards fulfillment  
of the requirements for

PHD degree in Clinical Psychology

  
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AND HYPNOTIC SUSCEPTIBILITY:**

**AN EMPIRICAL STUDY OF SIGMUND FREUD'S  
COUNTER-WILL AND HYPNOSIS THEORIES**

**By**

**Aaron David Werbel**

**A DISSERTATION**

**Submitted to  
Michigan State University  
in partial fulfillment of the requirements  
for the degree of**

**DOCTOR OF PHILOSOPHY**

**Department of Psychology**

**1998**



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1998

## **ABSTRACT**

### **AUTHORITARIAN VERSUS NON-AUTHORITARIAN INDUCTION, FATIGUE AND HYPNOTIC SUSCEPTIBILITY:**

#### **AN EMPIRICAL STUDY OF SIGMUND FREUD'S COUNTER-WILL AND HYPNOSIS THEORIES**

**By**

**Aaron David Werbel**

**This study examined specific predictions of hypnotic susceptibility derived from Freud's theories of the counter-will and hypnosis. Participants were hypnotized using either an authoritarian or non-authoritarian induction style while under conditions of fatigue designed to stimulate the counter-will or in a normal non-fatigued waking state. Results demonstrated that susceptibility increased from lowest to highest in the following succession: (1) fatigued subjects with a non-authoritarian induction; (2) non-fatigued subjects with a non-authoritarian induction; (3) non-fatigued subjects with an authoritarian induction; (4) fatigued subjects with an authoritarian induction. In addition, an authoritarian style was more effective in inducing hypnosis than a non-authoritarian induction style. These results corroborated Freud's theory of hypnosis as a regressive transference relationship in which the participant put the hypnotist in the place of the ego-ideal and his theory of the counter-will in which unconscious antithetic ideas developed during fatigue to reduce the likelihood of success in the participant's instrumental activity.**

**For my wife Nechumah**

**Your love, support, understanding,  
and a kick-in-the-pants are all I'll ever need.**

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## CHAPTER 1: INTRODUCTION

Various philosophers of science have pointed out that much psychological research is atheoretical in nature, based on numerous ad hoc hypotheses which detract from the usefulness of the study in supporting a progressive research paradigm in a Lakatosian perspective (Dar, 1987; Gholson & Barker, 1985; Lakatos, 1970; Manicas & Secord, 1983). With this in mind the following study presented a psychoanalytic explanation for the hypnotic relationship and made specific predictions with respect to hypnotic susceptibility based on an examination of Freud's counter-will theory.

The predictions of susceptibility, were derived from a juxtaposition of Freud's theory of hypnosis with his counter-will theory. This is likely to be particularly unpopular given the current state of interest in hypnosis from a cognitive-behavioral perspective (Spanos & Chaves, 1989). The present study created what Kuhn (1970) described as a "paradigm clash." Positive outcomes predicted by Freudian theory are incommensurate with the cognitive-behavioral perspective.

In accordance with an individual difference perspective, Hilgard (1965) distinguished four levels of susceptibility to hypnosis in the population at large and estimated their membership as follows: 10% are not susceptible to hypnosis; 30% may attain a drowsy-light state; 30% may reach a moderate level of hypnosis; and the remaining 30% are highly susceptible and able to reach a deep state of hypnosis. Based on declining susceptibility with age, he further asserted that nearly *all* persons are potentially susceptible. Most authors studying hypnosis since this declaration have not

shared Hilgard's optimism regarding susceptibility. It remains an open question, however, whether the field has identified the appropriate mediating variables which may influence an individual's susceptibility to hypnotic induction. One alleged method for increasing susceptibility in the population is to vary the induction style. Barber (1980) noted that level of hypnotizability is not a true personality measure but merely the measure of a person's susceptibility to the particular method or style of hypnosis employed. Most scales of susceptibility were based on direct suggestions, which he proposed might lead some clinicians to drop hypnosis as a treatment intervention prematurely when a client received low scores on such a scale.

Authoritarian and non-authoritarian induction methods have received significant attention from both clinicians and researchers attempting to demonstrate the superiority of one over the other. While some authors suggested a greater hypnotic depth is attainable with the use of a non-authoritarian method (Alman & Carney, 1980; Friction & Roth, 1985; Szabó, 1993), others reported greater success with an authoritarian approach (LeBaron, Reyher & Stack, 1985; Hartland, 1971; Salamone, 1989), and still others found no significant difference between the two methods (Hungerford, 1985; Lynn, Neufeld & Matyi, 1987; McDermott & Sheehan, 1976; Page & Handley, 1991; Spinhoven, Baak, Van Dyck & Vermeulen, 1988;). A number of studies that hypothesized the superiority of a non-authoritarian induction reported the exact opposite finding in their results (Yahel, 1989; Matthews & Mosher, 1988).

The superiority of the authoritarian style was particularly baffling for researchers looking at the relationship between psychological reactance and hypnotic susceptibility. Psychological reactance is a personality characteristic introduced by Brehm and Brehm

(1981) to describe the motivation of a person toward restoring individual freedom when that freedom has been threatened or lost. The authors of one study hypothesized that individuals' psychological reactance would mediate their reaction to counselors who acted either tentatively or absolutely with their interpretations (Dowd, Trutt, & Watkins, 1992). Their results supported the hypothesized difference, but in the opposite direction from that predicted. They found that individuals rated high in psychological reactance actually favored the absolute interpretations. Although this finding appears anomalous based on a theory of psychological reactance it may be explained by looking toward psychoanalytic theory.

Psychological reactance is a personality construct from the field of social psychology. Although different in significant ways, it shares some common features with Freud's (1892-1893/1966) psychoanalytic concept of the counter-will. A Freudian explanation of the hypnotic relationship when combined with his earliest counter-will theory provided a theoretical framework to account for some of the reports of greater susceptibility with the use of an authoritarian induction procedure, in addition to further predictions regarding specific conditions affecting susceptibility: They are presented in the following section.

### The Hypnotic Relationship

Numerous authors have referred to the significance of the patient's perceptions of the hypnotist, and their desire to satisfy the hypnotist's expectations. Sheehan (1971) related this phenomenon to the manifestation of a transference relationship. Reyher (1977; 1971) proposed a specific psychodynamic explanation of the transference

relationship, characterized by a passive-dependent-regressive posture on the part of the subject toward the hypnotist who is perceived as an omnipotent authority figure.

Reyher suggested that this regressive posture is particularly salient in relationships such as physician-patient, in which the patient's anxiety and a sense of ego-insufficiency facilitates his dependency striving toward the physician (Reyher, 1977; 1964; Reyher & Wilson, 1973). This relationship is what Freud referred to as a regressive transference. A transference in which the physician-patient interactions reactivate early paternal imagoes--memories or impressions of an omniscient, omnipotent parent. The parent not only took care of the patient's needs and desires, but controlled the child's most basic executive ego functions--fed them, changed their diapers, moved them around their environment.

Hilgard (1979) suggested that hypnosis may reorganize both executive and monitoring ego functions, allowing some of these operations to be turned over to the hypnotist--"The planning function is inhibited, and the hypnotized person does not independently undertake new lines of thought or action" (p. 50).

A relationship which facilitates the desire of the patient/subject to put the hypnotist into the place of the ego ideal (Freud, 1921/1955), which is created out of the earliest experiences with a perceived omnipotent paternal figure, would be most successful in inducing a hypnotic posture. A necessary consideration in determining how best to facilitate the dependency striving of the subject is the conditions of the relationship; namely, when a patient is sufficiently anxious about an illness or medical condition over which he feels helpless (Reyher, Wilson & Hughes, 1979). A physician who adopted an authoritative and paternalistic manner, demonstrated expertise, credentials, and confidence in his ability to heal the patient, facilitated the patient's

assumption of a dependent role - regressive transference relationship. This effect was demonstrated in a study by LeBaron, Reyher and Stack (1985). They found that women who received an elective abortion responded with greater hypnotic susceptibility when the doctor treated them in a paternalistic rather than egalitarian manner. They perceived him as warmer, more supportive, had less discomfort during the procedure, and experienced less physiological distress.

Gill and Brenman (1959) suggested that this dependency striving extended to the research relationship. They proposed that the research subject's expectation goes well beyond intellectual curiosity and "appeals to a universal infantile core which longs for" a total surrender of their personal power. This is the manifestation of the subject's longing to put the hypnotist into the place of the ego ideal which Freud described as "the same humble subjection, the same compliance, the same absence of criticism, towards the hypnotist as towards the loved object" (Freud, 1921/1955, p. 114).

It is possible to delineate some specific aspects of the patients' conditions which put them in a position wherein they more readily turn over control of their executive ego functions to another individual - a person who is perceived as sufficiently powerful to be put in the place of the ego ideal. One such aspect comes from Freud's concept of the counter-will.

### Counter-Will Theory<sup>1</sup>

The counter-will originates from an unconscious process which manifests itself in behavior which is both unwelcome and consciously opposed by the individual. Freud (1892-1893/1966) suggested that individuals experience specific ideas of intent in relation to future behavior. He further proposed that "distressing antithetic ideas" develop in an individual out of a subjective uncertainty of their ability to achieve the desired outcome. The antithetic ideas subtract from the conscious determination of the individual who is left with a resolution weaker than would otherwise be experienced. The antithetic ideas result in a sense of ego insufficiency--the individual worries that they do not possess the resources to succeed at the present task.

In a number of works, Freud introduced fatigue as the facilitator of unconscious processes (1916/1963). He suggested, however, that this fatigue is not complete but a partial exhaustion, which then facilitates the expression of unconscious antithetic ideas and intentions in spite of an individual's conscious desires. When a person experiences a partial exhaustion, Freud (1892-1893/1966) posited that only the conscious portion of the individual's associations are fatigued. This provides the antithetic ideas, which have been suppressed into the unconscious but remain active, with the opportunity to eclipse the individual's conscious wishes. It is for this reason that Freud's first patient "struggled with all her strength" but remained unable to fulfill her conscious desire to feed her infant (Freud, 1892-1893/1960). In another case, Freud (1893-1895/1955) reported that the

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<sup>1</sup>An analysis of Freud's writings reveals three distinct formulations of the counter-will. A complete discussion of these different counter-wills, their relationship to the hypnotic situation, and the rationale for using the earliest derivation to explain the research hypotheses proposed in the present study are presented in Appendix A.

exhausted state of a mother, "worn out by anxieties and her duties as a nurse," facilitated expression of her counter-will. This was manifested by her making a loud clacking noise when her conscious desire was for silence in the presence of her sickly sleeping child.

Wegman (1977) attempted a systems dynamic computer simulation of Freud's early counter-will theory. This mathematical model was designed to test the internal consistency of Freud's theory. Three computer simulations of the model were run from three different starting levels of an individual's supply of nervous energy. These simulations supported the basic assumptions of Freud's model and their consequences. Wegman's model survived extensive sensitivity analysis which supported its robustness and its ability to distinguish several different patterns of personality functioning (Denker, Achenbach & Keller, 1986). In addition, the simulations appeared to satisfactorily match clinical descriptions of different levels of individual personality and related behavior (Denker, et al., 1986).

### In-vitro Counter-Will

It is important to note that Freud did not consider the counter-will a result of an hysterical neurosis or neurasthenia, but instead the mechanism by which a hysterical symptom may present itself. This is clear in the sub-title to the paper in which he introduced us to the concept--"with some remarks on the origin of hysterical symptoms through 'counter-will'" (Freud, 1892-1893/1966, p.117). At the end of this paper, Freud mentioned his own interest in exploring the effects of the counter-will outside of hysteria, as he considered it "an event which very frequently occurs within the limits of the normal" (p. 128). It is not contradictory to Freud's theory to infer the existence of a



counter-will in any healthy individual. It is a counter-will which is simply suppressed as a result of the individual's sufficient physical and mental energy levels.

To test Freud's theory of the counter-will extra-clinically it is not necessary to create hysterical or neurasthenic symptoms in healthy participants. A research design must merely create conditions whereby the counter-will, already present, has the opportunity to express itself. The counter-will can be activated in healthy individuals by reducing levels of physical and mental energy through fatigue. Furthermore, placing individuals in a situation in which they consciously desire some instrumental outcome from their participation will allow for measurement of the impact the counter-will has on successful completion of the desired goal.

### The Present Study

The present study explored the relationship between two of Freud's seemingly incompatible theories, hypnosis and counter-will, and demonstrated their combined ability to predict levels of hypnotic susceptibility. Freud, himself, made use of these two theories simultaneously, although he never addressed their relationship directly. The potential for a hypnotic relationship attracts an individual's unconscious longing to re-enter a regressive-dependent transference relationship (Gill & Brenman, 1959; Reyher, 1977). The individual regresses to identification--the most primitive type of relationship--through placement of the hypnotist into the subject's ego ideal (Freud, 1913/1955; Freud, 1921/1955). With activation of the counter-will, an individual experiences ego insufficiency brought about by the antithetic idea that he will be unsuccessful in his conscious desire to experience hypnosis. The counter-will acts

contrary to the individual's desire for identification with the hypnotist by subjecting the participant first to doubt about his ability to successfully experience hypnosis, and then to disregard the hypnotist's suggestions, in effect bringing about the feared failure and a diminished susceptibility to hypnosis.

Freud (1893-1895/1955) pointed out, however, that unconscious antithetical ideas do not always win outright in their battle with an individual's conscious desires. He used hypnosis, in fact, to make counter-suggestions in direct opposition to his patient's antithetic ideas. In the case of a young mother, who was unable to breast feed her infant contrary to her desires and who was exhausted from agitated and sleepless nights and vomiting, Freud (1892-93/1966) induced hypnosis and made suggestions to contradict both her fears and the disrupted sleep and physical illness. The patient ate a full meal the next day without ill effect, but returned to distress at the following meal. Freud returned and became even more forceful and authoritarian in his induction and suggestions. As Freud described, he "acted with greater energy and confidence" (p. 120). All the symptoms were gone when he returned for a third visit and the patient was able to breast feed her child successfully. Freud successfully used this authoritarian hypnosis technique to reduce the hysterical counter-will symptoms of a number of his early patients. He demonstrated that hypnosis may be successful in countering the expression of the counter-will in individuals who are fatigued, thus allowing them to successfully achieve the goal of their behavior.

LeBaron, Reyher & Stark (1985) also provided some insight into the success of hypnosis in suppressing the counter-will. They demonstrated that the need for introjection of an authoritarian figure is increased when an individual is faced with

fatigue or illness. The narcissistic injury faced by an individual during activation of the counter-will and the subsequent ego insufficiency likely set the stage for introjection of an authoritarian hypnotist which then blocks the counter-will from asserting itself. In the face of an activated counter-will, an authoritarian induction style by a powerful hypnotist will facilitate the conditions necessary for the replacement of the ego ideal with the hypnotist and thus increase susceptibility for hypnosis as compared to the non-fatigued condition.

#### Experimental Hypotheses:

Freudian theory suggests that identification through putting the hypnotist in place of the subject's ego ideal should be facilitated by an induction style which best recapitulates the early imagoes of an omnipotent parent. An authoritarian induction most closely resembles this omnipotent imago. It is therefore hypothesized that:

1. An authoritarian induction style maximizes hypnotic susceptibility.

Freudian theory further suggests that antithetic ideas caused by fatigue result in the activation of the counter-will which produces an increased ego insufficiency in individuals. This ego insufficiency results in a diminished ability to successfully complete consciously desired goals, such as a desire to undergo a successful hypnotic induction. It is therefore hypothesized that:

2. Activation of the counter-will reduces hypnotic susceptibility.

While Freud used hypnosis to intervene in the face of hysterical counter-will symptoms, he also suggested that counter-will is a phenomenon that exists in normal individuals and will gain expression during times of physical and mental fatigue. The authoritarian style Freud employed was effective in countering the activation of the counter-will in his patients because it allowed them to put him into the place of their ego ideals during a time of narcissistic injury. This is a combination of early Freudian theory, prior to his topographical model, with his later ideas from Group Psychology and the Analysis of the Ego (1955/1921). While this later idea is from his topographical period it is consistent with his early formulation of the counter-will.

The third hypothesis includes rank order predictions of susceptibility derived from the Freudian theories of hypnosis and counter-will. They are presented here, with the theory-based rationale, of each position in the succession beginning with the lowest.

3a.     Fatigued subjects with a non-authoritarian induction.

The hypnotic relationship, as defined by Freud (1921/1955), is one in which the subject puts the hypnotist in the place of the subject's ego ideal. A non-authoritarian induction style fails to recapitulate the early parental imagoes and reduces the likelihood that the subject enter into such a relationship through putting the hypnotist in the place of the subject's ego ideal. Counter-will theory asserts that the subject's ego-insufficiency, given expression under conditions of fatigue, will counter his desire to achieve a successful induction, further reducing the likelihood of susceptibility.

**3b. Non-fatigued subjects with a non-authoritarian induction.**

Theory asserts that subjects in this group differ from the prior condition in that the expression of their counter-will was thwarted by their sufficient resources of mental and physical energy. As such, they should be more susceptible than the fatigued subjects also given a non-authoritarian induction.

**3c. Non-fatigued subjects with an authoritarian induction.**

These subjects were also non-fatigued like those in group b, but received an authoritarian induction. Theory predicts that the authoritarian style of the hypnotist will more closely resemble the subject's early parental omnipotent imagoes facilitating their desire to enter into the hypnotic relationship. These subjects, therefore, should be more susceptible than those in group b.

**3d. Fatigued subjects with an authoritarian induction.**

Finally, the fatigued subjects in this condition will be even more susceptible to hypnosis than the non-fatigued, authoritarian group because theory asserts that the activation of the counter-will maximizes the desirability of entering into a hypnotic relationship with a powerful authority figure to whom the subject may relinquish control of their executive ego functions, thereby diminishing the fear of failure resulting from increased feelings of ego insufficiency.

## CHAPTER 2: METHOD

### Participants and Experimenters

Participants in this study consisted of 60 male volunteers. They were recruited from university classes and the local community through advertising which announced the opportunity to participate in a study exploring the relationship between susceptibility to hypnosis and human circadian cycles (see appendix B). To be consistent with Freud's first formulation of counter-will as an intrapsychic phenomenon of ego-insufficiency, it was essential to avoid incorporating obvious extrapsychic counter-will cues that might otherwise complicate their motivation to participate. Therefore, participation was strictly voluntary, without any enticement in the form of either cash reimbursement or course credit/extra-credit. These traditional motivators used in psychological research might stimulate a counter-will more consistent with Freud's second, extrapsychic formulation (see appendix A). Although it is arguable that participants were requested to submit to an external authority merely by participating in a psychological experiment in a lab setting, which is unavoidable, it is the desire to participate for which extrapsychic coercion was minimized. It was expected that this would allow the expression of an intrapsychic counter-will based on the subject's own need to experience a hypnotic induction.

Subjects had a mean age of 22 (range 18-33). They were from a variety of ethnic backgrounds including White (80%), Asian/Pacific Islander (6.2%), Hispanic (3.1%) and African American (1.5%) with 6 cases missing data (9.2%). Religious affiliation included Christian (41.5%), Deist (defined as a belief in a higher being, but no specific religious affiliation, 24.6%), Atheist (10.8%), Jewish (7.7%), Buddhist/Taoist (4.6%)

with 7 cases missing data (10.8%). 87.7% of the men were single and 4.6% were married (7.7% missing). Only 9 participants reported any prior experience with hypnosis which ranged from medical intervention to entertainment.

The two hypnotists were upper level undergraduate male students trained by the researcher to administer both the authoritarian and non-authoritarian hypnotic inductions. Participants in each condition were divided randomly and equally between the two hypnotists to facilitate analysis. The hypnotists and female research assistants were completely blind to all hypotheses concerning the counter-will.

## Measures

Hypnotic induction scales. Two alternative induction-susceptibility scales were developed for use in this study (see Appendices C and D). Both scales were based on the Stanford Hypnotic Susceptibility Scale, Form A (SHSS:A; Weitzenhoffer and Hilgard, 1959). The basic structure of the scale was largely untouched, while the wording was altered so that one form was even more authoritarian than the original SHSS:A, and the second much less authoritarian<sup>2</sup>. Development of the two induction scales was guided by Freud's own style of communication while conducting hypnosis. Freud clearly used an authoritarian approach in his own hypnosis of patients. He referred to suggestions as

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<sup>2</sup>While the term non-authoritarian was used throughout this study, the reader is alerted to the limitations in attempting to create a truly non-authoritarian induction measure when one individual in a relationship is assumed to possess knowledge that the other is lacking and when that knowledge is pertinent to the relationship. The scale used in the present study might be more accurately called much-less-authoritarian, however, non-authoritarian was retained for two reasons. First, because the scale was developed in the spirit of creating a completely non-authoritarian guide to hypnosis, and second, in order to maintain continuity with the previous studies exploring the difference between authoritarian and more non-authoritarian hypnotic induction styles.

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"persuasion" and stated that in an induction "we begin to talk the patient into feeling the sensations of falling asleep" (Freud, 1891/1966, p. 108). He encouraged suggestions made "energetically and in rapid succession" (p. 109). The following passage, in which Freud recommended an approach the hypnotist may take if induction fails, demonstrated his authoritarian style:

He will reply, not in the least angrily, as he once more closes the patient's eyes (*Freud did this physically himself if the patient did not close them*): 'Keep still. You have promised not to talk. Of course I know that you are not "asleep"; nor is that in the least necessary. What would have been the sense of my simply making you fall asleep? You would not understand when I speak to you. You are not asleep, but you are hypnotized, you are under my influence; what I say to you now will make a special impression on you and will be of use to you.' (Freud 1891/1966, p. 110)

The non-authoritarian induction procedure was developed to contrast with Freud's authoritarian style. Wording of this scale was developed to reflect the opposite of Freud's authoritarian approach. For example, instead of using "persuasion" and "energetic" or "rapid" suggestions, the non-authoritarian style consisted of collaborative suggestions, allowing the subject the choice of personal sensations experienced, and was posed in a relaxed and less rapid fashion.

The scored tasks on both scales included the following items: postural sway, eye closure, hand lowering, finger lock, arm immobilization, arm rigidity, moving hands together, verbal inhibition of name, fly hallucination, eye catalepsy, and posthypnotic suggestion. Both scales allowed for objective scoring by the allotment of points for successful completion of each task required by the induction procedure. Each task was scored either 0 for failure or 1 for success and summed to determine the subject's overall susceptibility.

**Manipulation check scales. *The Personal Power Functions Profile Scale (PPFP).***

Developed by Joseph Reyher (1979), this scale identifies the perception of a rater on 16 different characteristics of personal power (see Appendix E). These include physical characteristics (attractiveness, stature, apparent strength, and carriage), interpersonal skills (social savoir faire, eye contact, speech, knowledge ability and talent germane to the interaction), personal-social attributes (authority, socioeconomic status, personal fame, family fame, education, and attire) and personal characteristics (voice, and expression of ideas). The subject of observation is rated from 1-5 on each item, with a higher number indicating greater perceived personal power. The scale has good reliability ( $r=.90$ , Gavrilides, 1980) and has been used in past studies to differentiate personal power (Gavrilides, 1980; Graham, 1995; Tobias, 1993). Gavrilides (1980) found that perceived personal power was inversely significantly related to observed incidence of security operations and anxiety while significantly positively related to happiness. While some past studies (Graham, 1995; Tobias, 1993) only used items from the scale that were experimentally manipulated, the scale was used in its entirety in the present study. As the measure is based on a perception of personal power, it was felt that items such as level of education or personal fame, while not directly manipulated, would still contribute to an overall index of the perceived personal power of the hypnotist.

***Likert Scale Questions.*** Four likert scale questions were developed for this study to measure pre-test desire for and expectation of a successful hypnotic experience and post-test level of importance for success and perception of hypnotic susceptibility. The questions were developed to have high face validity to provide a manipulation check for the stimulation of conscious ego-insufficiency consistent with Freud's theory of the

counter-will. The pre-test questions are “I have a strong desire to experience what it is like to be hypnotized” and “I expect that I will be successful in experiencing an hypnotic induction.” The two post-test questions are “It is not very important to me whether I can experience hypnosis or not” and “I found that I was able to successfully experience an hypnotic induction.” The likert scale used was a 6 point scale allowing for no “neutral” response. Both pre-test questions and post-test question number 2 were reverse scored for theoretical consistency in the statistical analysis.

*Thematic Apperception Test (TAT).* Two TAT cards were chosen to provide a manipulation check for the stimulation of unconscious ego-insufficiency. McClelland, Atkinson, Clark & Lowell (1953) documented a research program using the TAT to explore achievement motive and they referred to both a desire for achievement and a fear of failure which may combine to affect projective material on the TAT. Specifically, they suggested that cues in a subject’s relatively autonomous thought processes, specific experimental manipulations, and cues of a particular TAT card image combine to determine the subject’s achievement fantasies. The rationale for using TAT cards to evaluate the existence of ego-insufficiency and, therefore, counter-will, is consistent with this theoretical stand. The two cards used in the present study were chosen to maximize projected fantasies of success or failure on an instrumental activity.

Card 12M (hereafter referred to as card 12) presented a picture of a man standing over a younger man lying supine on a bed (Murray, 1943). For this study, it was significant that the prone individual is in an apparent position of submission and may be seen as a love object for the man standing above. This older man is in a position comparable to that of the hypnotist in a regressive transference relationship and would

therefore be provocative for success or failure indicators in the subjects fantasies. In fact, the card is often referred to as the “hypnosis card” due to this interpretation.

Card 17BM (hereafter referred to as card 17) depicts a naked man clinging to a rope, in the act of climbing either up or down (Murray, 1943). Projective testing lore attributes feelings of an autoerotic or homosexual nature to the material this card attracts. The card was specifically chosen because the hero is in an obvious act of instrumental activity which would pull for projections of an achievement goal for which success could be rated.

*TAT Scoring.* New scoring criteria were developed for rating the TAT cards as a previous system was not identified which was completely satisfactory for evaluating ego-insufficiency. Debate has continued between clinicians who choose a more holistic approach to TAT scoring and researchers, such as McClelland and Atkinson, who focus on a more limited area of interest. The rating of responses in this study were theoretically consistent with a number of previous scoring systems from both perspectives (Eron, 1950 in Murstein, 1963; McClelland, et al., 1953). These rating systems demonstrated interrater reliabilities in the mid-80's to 90's. Responses were rated as follows by the experimenter who was completely blind to experimental conditions:

+1: Outright success in instrumental activity. Expressions of great happiness or extreme satisfaction in reported outcome. Reports of significant long term gain from outcome.

**+2 Modest or less than complete success in instrumental activity.**

**Expressions of limited happiness or satisfaction in reported outcome. Reports of some modest benefits from outcome.**

**+3 Focus on incomplete failure rather than partial success. Expressions of**

**modest distress, loss, or dissatisfaction. Reports of slight negative impact resulting from outcome.**

**+4 Outright failure in instrumental activity. Expressions of significant**

**distress, loss and extreme dissatisfaction. Reports of significant negative long term effect resulting from outcome.**

**Although the rating scale seems logically reversed, it was designed to measure ego-insufficiency and therefore allotted higher scores for projections of failure in attaining desired outcomes.**

**Additional Measures. *Draw-a-person test (DAP).* Although Freud's first formulation of the counter-will, the intrapsychic formulation, is the theory under test in the present study, data was also gathered on a later formulation of the counter-will as an extrapsychic phenomenon in the spirit of strong inference (Platt, 1964).**

**Handler (1967) identified twenty indices of anxiety for rating human figure drawings and pointed to a number of variables which gave him the impression the subjects wished to flee the testing situation. These included drawings of a small size and**

displacement from the center of the paper. Reyher (1988, 1985) identified a reaction opposite to this desire to flee the situation which he called “contre-coup.” The contre-coup described a male subject’s unconscious counter-attack against the experimental situation during an intimidating condition. The subject manifested a contre-coup reaction on the DAP by drawings larger in size and positioned more toward the center of the paper.

The contre-coup is not expected to be present in the current study because methodology sought to minimize extrapsychic cues for motivation and maximize motivation based on Freud’s first formulation of the counter-will, an intrapsychic phenomenon.

## **Procedures**

Subjects were randomly assigned to one of four groups derived from crossing the two independent variables. Half received the authoritarian induction scale and half the non-authoritarian induction. In addition, half of the participants in each of these groups were subjected to a procedure designed to facilitate expression of their counter-will.

All subjects were greeted by a research assistant who followed the script in appendix F. The research assistant administered the consent form (see appendix G), demographics questionnaire (see appendix H) and pre- and post-hypnosis measures. In order for the subject to complete the PPFP prior to the hypnotic procedure they were briefly introduced to the hypnotist, in a manner consistent with the induction condition, at the beginning of the pre-hypnosis test session.

### **Induction Style Manipulation**

In addition to the semantics and delivery of the susceptibility scales, the authoritarian and non-authoritarian styles were supported by the physical position and attire of the hypnotist during induction. The authoritarian hypnotist was positioned directly in front of the participant during the induction procedure, loomed over him and wore a dress shirt, tie and white lab coat. This was designed to facilitate perception of the hypnotist as an omnipotent authority figure and encourage a regressive posture by the participant. In contrast, the non-authoritarian hypnotist sat at an angle to the subject during induction and dressed in khaki slacks and a warmly colored shirt, without tie or lab coat.

Furthermore, the room in which the hypnosis took place was altered depending on the induction condition. During the authoritarian condition, the participant knocked on a closed door and was ushered in by the hypnotist. The hypnosis took place in a room with an open door to an inner office which contained floor to ceiling electronic equipment, including a polygraph machine, adding to the authoritarian expert aura of the hypnotist. In the non-authoritarian condition the outer door to the office was open when the participant arrived and allowed for a more casual introduction, and the inner door remained closed.

### **Counter-Will Facilitation**

Freud proposed that the counter-will is facilitated by a partial exhaustion or fatigue. In his case studies, he presented individuals under stress from the care of infants and children (Freud, 1892-1893/1966; Freud, 1893-1895/1955; Freud, 1895/1962). A

common theme in his examples is the loss of sleep which accompanied the conditions under which his patients found themselves. As an analog to the circumstances of the development of the counter-will theory, the present study stimulated fatigue through sleep reduction and adjusted the testing time to correspond with natural cycles of alertness found in human subjects (Linde, 1995; Lorist, Snel and Kok, 1993). Participants in the experimental group were requested to remain awake at home until 1:00 am. They arrived at the experiment site at 5:00 am where they were met by one of the research assistants. They were asked not to ingest any caffeine in the morning nor to engage in morning exercises, and told that this would interfere with their natural circadian cycle. Subjects were told that the hypnosis would not begin for a few hours but they would be given a video to watch. The video, a recent motion picture--Lorenzo's Oil, was chosen for its quality and content. The film is about two parents' struggle coping with their child's development and progression of a terminal illness. The child is healed in the end but only after an exhausting struggle by the parents to find a cure. The video presented a dramatic display of the fatigue experienced by the parents. It portrayed the father's exhaustive efforts at finding a cure for his son, which the subjects could identify with in their fatigued state of partial exhaustion. The movie's content closely paralleled the original condition in which Freud discovered the counter-will. The pre-hypnosis testing session began at approximately 7:30 am, after the video. Research assistants made regular checks for compliance with staying awake during the movie. Subjects in the control group were tested in the afternoon without any sleep interruption during the previous night nor exposure to the video.



## CHAPTER 3: RESULTS AND DISCUSSION

### **Interrater Reliability**

The interrater reliability for the hypnotic induction scale was 0.94 (Spearman  $\rho$ ). This is consistent with previously reported strong interrater reliability for the Stanford Hypnotic Susceptibility Scales.

### **Reliability of Dependent Measures**

Two different methods were used in this study to test reliability of the dependent measures— test-retest and coefficient alpha. Pre- and post-test mean comparisons are presented in Table 1. All but two of the measures demonstrated test-retest reliability. The DAP-Size and Likert 1 (desire to be hypnotized) items appeared to change significantly from the pre-induction to post-hypnosis testing. Any conjecture as to why this occurred must be merely educated guessing driven by the theory underlining the study.

In the case of the DAP test, it may be that size is a more sensitive measure than displacement from center of the subjects reaction to the hypnotic situation. However, as will be presented later, because neither size nor displacement approached significance in correlating with either independent variable, the difference in pre- and post-testing appears to be irrelevant to the theory under question. Further, the actual difference between the pre-and post-test DAP size was very slight numerically ( $M=4.7$  and  $4.3$ , respectively) and they were strongly positively correlated ( $r=.801$ ).

Table 1

**Mean Comparisons Between Pre- and Post-Test Dependent Variables**

Variable	Pre-test <sup>a</sup>	Post-test <sup>a</sup>	df	t
PPFP	56.08	56.58	59	-0.75
TAT 12	2.04	2.24	54	-1.07
TAT 17	1.87	1.90	59	-0.23
Likert 1	5.13	4.18	60	-5.37**
Likert 2	3.98	4.07	60	0.46
DAP-S	4.70	4.31	60	2.01*
DAP-D	1.80	1.82	60	0.38

Note: Because the manipulation check variables were widely disparate in their approximations of a normal distribution, non-parametric comparisons were also run using the Wilcoxon Signed Ranks Test. It is interesting to note that this test produced the same results as the parametric t-test.

<sup>a</sup>Values represent group means.

\* $p < .05$ . \*\* $p < .001$ . Paired sample t-test

The likert 1 question also changed from pre- to post-hypnosis testing. This change, however is misleading. Upon further analysis, the question was judged to be worded for the post-test in such a way as to render it non-interpretable for the current study. The question asked subjects if they felt it was important whether they could “experience hypnosis or not.” What remained ambiguous was whether an affirmative response reflected a desire to be hypnotized or a desire to fail. Because the pre- and post-test administration of Likert 1 are really two different questions it was later expected that the items would not necessarily be related.

Another estimate of reliability, useful when testing measures made up of multiple items, is the coefficient alpha, reported for pre- and post-test PPFP and Hypnotic Susceptibility scales in Table 2. All three scales demonstrate sufficient internal consistency.

Table 2

Scale Reliability

Scale	$\alpha$
Hypnotic Susceptibility	.80
PPFP pre-test	.72
PPFP post-test	.80

### **Experimenter Effects**

While previous studies have demonstrated sufficient similarity between multiple hypnotists to justify collapsing the data for analysis, the present study evaluated unique features of perceived hypnotist power which cannot be assumed to be equal between hypnotists. The dependent variable and manipulation variables were examined to support collapsing data from both hypnotists into one data set. Independent samples t-tests comparing the hypnotists are presented in Table 3. No significant difference was found on subjects' susceptibility to hypnosis, the dependent variable. Further, only one manipulation variable, Likert 1-post, which asked subjects, after they were hypnotized, to rate the importance of whether they experienced a successful induction or not, demonstrated significantly different means. This item was mentioned above as suffering from problems in semantics and is uninterpretable. It is significant that this is the only item to differentiate between hypnotists. These findings were consistent with counter-will theory which suggested that variables should not be dependent on a particular hypnotist, but rather an internal mechanism in the participant. The data was collapsed into a singular data set for the remaining analyses.

### **Manipulation Checks**

Kazdin's (1980) suggestion for conducting manipulation checks only in the face of no effect on the dependent measure is appealing, as it avoids the potential ambiguity of significant results from the primary hypotheses with no effect on the manipulation checks. However, he also asserted the importance of using the checks to determine how well the hypotheses were tested. The present analysis was guided more by

**Table 3**

**Pre and Post-Test Variable Mean Comparisons by Hypnotist**

<b>Variables</b>	<b>Hypnotist 1<sup>a</sup></b>	<b>Hypnotist 2<sup>a</sup></b>	<b>df</b>	<b>t</b>
<b>Pre-Test</b>				
PPFP	57.28	54.71	58	1.97
TAT 12	2.13	2.07	59	0.22
TAT 17	1.97	1.72	59	0.87
Likert 1	5.16	5.10	59	0.21
Likert 2	3.91	4.07	59	-0.60
DAP-S	4.56	4.86	59	-0.48
DAP-D	1.75	1.86	59	-1.11
<b>Post-test</b>				
PPFP	57.94	55.41	59	1.74
TAT 12	2.13	2.36	53	-0.70
TAT 17	1.90	1.90	58	0.02
Likert 1	4.56	3.76	59	2.86**
Likert 2	4.13	4.00	59	0.36
DAP-S	3.97	4.69	59	-1.16
DAP-D	1.78	1.86	59	-0.81
HS Tot	5.42	5.16	63	0.37

<sup>a</sup>Values represent group means.

\*\*p < .01. Independent samples t-test.

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this second assertion and explored the independent variable manipulations prior to analyzing the primary hypotheses in order to determine whether a fair test of the experimental hypotheses was possible.

**Induction style.** The Personal Power Function Profile (PPFP) was used to evaluate the perceived power level of the hypnotists in both the authoritarian and non-authoritarian conditions. It was expected that the personal power of an authoritarian hypnotist (dressed in his white lab coat, addressed by surname, positioned directly in front of the subject and using a distinctly command style of induction) would be rated higher than the non-authoritarian hypnotist (wearing a pastel shirt and khakis, addressed by his first name, seated beside the subject and using a more egalitarian style of communication).

The PPFP itself demonstrated good internal consistency ( $\alpha=.72$  and  $.80$ ) but responses produced little variance. It is possible that there was not enough variance in the measure to expose a perceived difference of power between the two induction conditions. An independent-samples t-test compared the means on the PPFP for the two conditions and did not corroborate the intended manipulation ( $t=-.61$ ,  $p=.27$ ;  $t=.39$ ,  $p=.35$ , pre- and post-hypnosis respectively). The means of only one item on both administrations of the PPFP demonstrated a significant difference between the induction styles (pre-test Item I,  $t=-1.71$ ,  $p<.05$ ). It changed in the expected direction with the authoritarian hypnotist interpreted as having greater personal power with respect to attire.

One explanation supported in the literature for this lack of differentiation of induction procedure suggested that regardless of experimental manipulations of such

hypnotist characteristics as attire and style of communication, just being a hypnotist in an experimental study in the laboratory of a major university is enough to produce perceptions of personal power by the subjects (Graham, 1995). This might be expected to overwhelm any other difference between the two conditions. The pre- and post-test PFP were positively correlated ( $r=.549$ ,  $p<.01$ ) which indicated that the perceived power of the hypnotist, as evaluated by the subject prior to the hypnotic session, did not change as a result of the hypnosis. This may be due to the manipulated pre-test indicators of high and low authority, such as attire and form of address, but is also consistent with Graham's methodological note regarding the authority conferred to the hypnotist based merely on his role. These findings suggest that either the manipulation was not successful in differentiating between the two induction styles or the measure itself was not appropriate for demonstrating the difference in conditions. In light of this finding, it is difficult to conclude that hypotheses contingent on induction style received a fair test.

Counter-will. There were two manipulation checks for the production of the counter-will reported in Table 4. The TAT was expected to indicate the stimulation of the counter-will by demonstrating a significant mean difference in ego-insufficiency between the non-fatigue and fatigue conditions that favored the latter. Cards were rated based on the level of success or failure in the outcome of the story's described task. Due to the apparent insensitivity to ego-insufficiency of the pre-test administration of card 12 (discussed in detail in the following preliminary analyses section), it was the only item not expected to produce a significant mean difference. In fact, none of the TAT



**Table 4**

**Mean Comparisons of Dependent Variables by Fatigue**

<b>Item</b>	<b>Fatigue<sup>a</sup></b>	<b>Non-fatigue<sup>a</sup></b>	<b>df</b>	<b>t</b>
<b>TAT</b>				
<b>12</b>				
Pre	2.13	2.06	59	-0.27
Post	2.15	2.31	53	0.49
<b>17</b>				
Pre	1.67	2.03	59	1.31
Post	1.93	1.87	58	-0.21
<b>Likert</b>				
<b>1</b>				
Pre	2.00	1.74	59	-1.05
Post	4.33	4.03	59	-1.01
<b>2</b>				
Pre	3.20	2.84	59	-1.32
Post	2.97	2.90	59	-0.18

<sup>a</sup>values represent group means.

manipulation tests reached statistical significance. While this result diminished the possibility of a fair test of the hypothesis involving counter-will, it is also possible that the TAT cards were not sensitive enough to pick up the difference between groups.

The likert scale questions were expected to act consistent with the stimulation of the counter-will by identifying differences in a participant's desire and expectation regarding a successful outcome to their hypnotic session. These items were again compared between the non-fatigue and fatigue groups. Both questions produced mean differences in the direction consistent with stimulation of the counter-will – more ego-insufficiency in the fatigue condition. Neither likert item, however, reached statistical significance.

General implications. The manipulation checks suggest that a fair test of the experimental hypotheses is not possible. However, there are other plausible explanations for the lack of effect on the independent variable manipulations. One previously suggested interpretation is that the measures were inappropriate for measuring differences in the independent variables. It is also possible that the measures were appropriate yet not sensitive enough to directly record the variance. Fortunately the manipulation checks are not the final word on whether the hypotheses received a fair test. In fact, variation on the dependent variable is the strongest indicator of success in corroborating theory driven research (Kazdin, 1980).

Prior to analyzing the experimental hypotheses, however, one line of research has demonstrated the usefulness of preliminary analyses of all the experimental data, to see if it behaves in a manner consistent with the underlying theory for the study (Dammann,

1997; Graham, 1995; Tobias, 1993). If the data behaves consistent with, in this case Freudian counter-will and hypnosis theory, there arguable is grounds for a fair test of the hypotheses despite the lack of effect on the manipulation checks. The present study explored the data in this fashion in the preliminary analysis section which follows.

### Preliminary Analyses

The following exploratory analyses were conducted to assess the extent to which the independent and dependent variables behaved consistently with Freud's intrapsychic theory of the counter-will and his theory of hypnosis. Although as post-hoc analyses, these inquiries into the data do not carry the weight of the experimental hypotheses, they nonetheless provide an additional avenue to determine whether the hypotheses are receiving a fair test.

Hypnotic susceptibility and the dependent variables. Table 5 displays the correlations between hypnotic susceptibility and all of the dependent variables. It is interesting to note that in contrast to the individual difference tradition traits, half of the correlations are negative. In the tradition of individual difference measures, scales and inventories of all types tend to be positively correlated and the few obtained negative correlations are trivial (for example see Campbell & Fiske, 1959). In light of this trend, a negative correlation demands special attention, particularly when predicted by theory and not merely an artifact of scale design.

Table 5

**Pearson Correlations Between Hypnotic Susceptibility  
and the Dependent Variables**

Variables	r
Pre-Test	
TAT 12	.042
TAT 17	.040
Likert 1	-.220
Likert 2	.322*
DAP size	-.235
DAP distance	-.027
Post-test	
PPFP	.146
TAT 12	-.282*
TAT 17	-.287*
Likert 1	-.002
Likert 2	-.459**
DAP size	-.223
DAP distance	-.048

\*p < .05. \*\*p < .01.

Hypnotic susceptibility and the TAT. Freud's counter-will theory predicts an inverse relationship between ego-insufficiency and susceptibility to hypnosis. The TAT cards measured the participants' putative unconscious ego-insufficiency. Both post-test TAT cards were correlated significantly and inversely with susceptibility. Interestingly, this relationship did not reach statistical significance in the pre-test TAT cards. Two opposing explanations for this increase in the expected relationship between the pre- and post-testing sessions were explored. The primary difference between the two testing administrations was the experience of an attempted induction session. For those subjects whose counter-will had been stimulated, this session allowed their ego-insufficiency an opportunity to interact with the desired goal of their instrumental activity (hypnosis) and reduced the subjects' susceptibility.

Freud's formulation of an intrapsychic counter-will suggests that after exposure to the failed outcome of a desired task, such as low hypnotic susceptibility scores, the subject's sense of ego-insufficiency will be strengthened by their failure and may result in a different story on the TAT -- one which contains even greater indication of ego-insufficiency. Likewise, those who are highly susceptible to the induction should experience a drop in ego-insufficiency as a result of the successful experience.

This can be contrasted with the expected outcome if Freud's later formulation of the counter-will as a reaction against an external authority was driving the change. In this case, theory suggests that the low hypnotizable subjects would consider their failure a success, in as much as they rebelled against the authority of the hypnotist, in essence defeating the tribal chieftain/primal father. As such, it is expected that their sense of ego-insufficiency would decrease despite being low in susceptibility.

The data can only support one of these theories. Results in Table 6 demonstrated that on both TAT cards, low susceptible subjects' level of ego-insufficiency increased after the hypnotic experience while high susceptible subjects' ego-insufficiency decreased. This is consistent with Freud's earliest formulation of the counter-will as an intrapsychic phenomenon and incompatible with the external authority formulation. It also explains the significant relationship between susceptibility and the post-hypnosis TAT responses while the pre-test cards did not reach significance. This appears to be a result of the increased likelihood of the projected material to contain manifestations of ego-insufficiency after the subject has an opportunity to interact with the hypnotic manipulation.

Table 6

Mean Comparisons of Pre- and Post-test TAT Card Ratings as a Function of Dichotimized Susceptibility

Item	Pre <sup>a</sup>	Post <sup>a</sup>	df	t
Low Susceptibility				
TAT 12	2.00	2.52	26	-1.89*
TAT 17	1.81	2.13	31	-1.31
High Susceptibility				
TAT 12	2.07	1.96	27	0.43
TAT 17	1.93	1.64	27	1.98*

Note: The Wilcoxon Signed Ranks Test for non-parametric data produced equivalent results.

<sup>a</sup>Values represent group means.

\*p < .05.

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Hypnotic susceptibility and the likert questions. While different theories, such as demand characteristics, offer explanations for why individuals with a conscious belief in future success are successful at a task and rate themselves as such, Freudian counter-will theory makes some specific additional and unique predictions about an individual's self-report ratings of desire for and actual success. First, Freud's theory of the counter-will does not suggest that desire to succeed at a task is related to ego-insufficiency and counter-will. Conscious desire and a putative unconscious counter-will are not necessarily related in any uniformly direct manner. There must be some desire present for the ego-insufficiency to act against, but there is no suggestion by Freud that the two will behave in relation to each other.

In the present study, the methodological minimization of obvious external motivators such as monetary reimbursement or course credit for participation left an individual's desire as the sole motivation. While pre-test desire was positively correlated with susceptibility, it did not reach statistical significance (Table 5). Likewise, counter-will theory also does not suggest a relationship between post-test evaluation of the importance a successful hypnosis had to the subject and desire. The data was consistent with Freud's counter-will theory as no relationship was found.

Freudian counter-will theory, however, does suggest that expectations of a successful hypnotic experience should be directly related to susceptibility. In Freud's (1892-1893/1966, 1893-1895/1955, 1916/1963) examples of counter-will, his patients were aware of a great fear of failure and the significant effort they had to put forth to try and counteract the fatigue driven antithetic ideas which gave rise to ego-insufficiency and the counter-will. This suggests the possibility of a conscious component to ego-



insufficiency which would result in a positive correlation between both pre-test expectations and post-test evaluations of success with hypnosis. Once again, the data was consistent with counter-will theory. Both administrations of Likert 2 resulted in statistically significant positive correlations with hypnotic susceptibility (see table 5).

TAT intercorrelations. Because the cues of the two TAT cards in projective testing were different, positive correlations were not expected until the subject's autonomous personal thoughts interacted with the experimental situation (McClelland, et al., 1953). In accordance with McClelland and his research associates (1953), the cards were expected to correlate positively only after stimulation of all three factors in the projection of achievement fantasies. Only after the addition of the experimental manipulation to the subject's autonomous thoughts and the cues of the card, would they measure the same suspected intrapsychic phenomenon - namely ego-insufficiency.

Half of the six possible correlations reached significance (Table 7). The TAT 12 pre-test administration accounted for all of the non-significant correlations. It may be that this card was not as sensitive to the ego-insufficiency as card 17, however during post-testing TAT 12 did correlate positively with both pre- and post-test TAT 17.

In order to more fully explore the TAT correlations, the data was further partitioned into matrices for the counter-will independent variable. Table 8 presents matrices for subjects who were exposed to no experimental manipulation prior to hypnosis (non-fatigue group) and those who were fatigued. A number of interesting relationships resulted from this analysis and demonstrated consistency with Freud's counter-will theory.

Table 7

Intercorrelations Between TAT Cards

Card	Card 12		Card 17	
	Pre	Post	Pre	Post
12				
Pre	--	.171	-.048	.026
Post		--	.404**	.446**
17				
Pre			--	.460**
Post				--

\*\*p &lt; .01.

Table 8

Intercorrelations Between TAT Cards for Non-Fatigued and Fatigued Participants

Card	Card 12		Card 17	
	Pre	Post	Pre	Post
Non-Fatigue				
12				
Pre	--	.272	-.030	.395*
Post		--	.180	.482*
17				
Pre			--	.254
Post				--
Fatigue				
12				
Pre	--	.098	.039	-.261
Post		--	.497**	.416*
17				
Pre			--	.616**
Post				--

\*p &lt; .05. \*\*p &lt; .01.

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The first comparison of interest is between the two cards chosen for their ability to evoke a story easily scored for the success or failure of a desired outcome. At pre-test in both non-fatigued and fatigued conditions the cards appear to be unrelated to each other ( $r = -.030$  and  $.039$ , respectively). When the cards are compared again after the hypnotic relationship a very strong positive relationship is found for both non-fatigue and fatigue conditions ( $r = .482$  and  $.416$ , respectively). This suggested that while the cards are not measuring the same thing prior to the hypnotic experience, it appears as if exposure to the hypnotist and the opportunity for the counter-will to interact in a concrete manner with the desired task allows ego-insufficiency to reach a threshold necessary for detection on the TAT cards.

Recalling that traditional projective testing lore suggests that cards 12 and 17 pull for different unconscious material, a positive correlation prior to an experimental manipulation is not surprising. In fact, this may hold true for any two TAT cards. After treatment, however, because the TAT is a projective measure, the subject's psyche finds a way to project itself onto the material in the card. Therefore, it is consistent with theory that the cards show a positive relationship after the hypnotic experience when scored for ego-insufficiency. The implication is clear that these cards, and possibly any two TAT cards, can be used for a fair test of the hypotheses.

A second comparison of interest which varies between the non-fatigued and fatigued condition is the relationship between card 12 in the pre- and post-test administrations. The two administrations are positively related to each other in the non-fatigued condition ( $r = .272$ ) but are less positively related in the fatigued condition ( $r = .098$ ). In the non-fatigued condition the counter-will has not been stimulated and as

such feelings of ego-insufficiency would not be expected to present themselves either before or after the hypnotic experience. In this case, whatever unconscious material card 12 is pulling for prior to the experimental manipulation should be similar to projected material in the post-test administration. Under conditions of fatigue, however, an experimental manipulation has already taken place during the pre-test stage. As has been previously discussed, a threshold of ego-insufficiency has not been reached at this administration which would allow detection by card 12, however during post-testing, after interaction with the instrumental activity, this card is able to pick up ego-insufficiency. It is therefore consistent with counter-will theory that in the fatigue condition the pre- and post-test scores for card 12 would be unrelated.

Card 17 (nude male) appears to be more sensitive to ego-insufficiency than card 12 (hypnosis card). In the non-fatigued condition the pre- and post-test administrations are related in the same manner as card 12, which is expected as no counter-will has been expressed. However, in the fatigue condition, the pre- and post-test scores on card 17 correlate strongly ( $r=.616$ ). It is possible in light of the traditional lore regarding card 17 as sensitive to unconscious homosexual feelings, that it was more sensitive to ego-insufficiency prior to the hypnotic experience due to brief exposure to the male hypnotist and then being tested by a young female research assistant. In this case, the ego insufficiency is not related directly to the hypnotic experience but to unconscious sexual fantasies about the female assistant and the male hypnotist. The subject was briefly exposed to a powerful male love-object to be introjected into the subject's ego-ideal and then presented with a TAT card which pulls for homoerotic fantasy. To further confuse his sense of sexuality, he was presented this card by a young, female research assistant. It

is plausible that this mixture of stimulation increased the level of pre-hypnosis ego insufficiency. The scoring of projected ego insufficiency is not content specific, but merely dependent on the unconscious antithetic ideas which result in the failure of any instrumental activity projected onto the TAT card. In the present case this may be the homoerotic feelings for the hypnotist confused by the heterosexual fantasies about the research assistant.

The final two correlations involve pre-test card 12 with post-test card 17 and vice versa. Two of these interpretations are fairly straight forward with regard to Freud's counter-will theory. Pre-test card 17 is positively related to post-test card 12. This is expected considering the previous finding that card 17 is more sensitive to ego-insufficiency during the pre-test condition while card 12 picks up ego-insufficiency better after the hypnotic experience. Further, this relationship is much stronger and statistically significant in the fatigue condition ( $r=.497$ ), which would also be expected due to the experimental manipulation's effect on the counter-will projections onto post-test card 12.

The correlation more difficult to explain with Freudian counter-will theory is the relationship between pre-test card 12 and post-test card 17. All of the prior analyses suggest that no relationship would exist between these cards, at least on the basis of ego-insufficiency. Yet, there is a significant positive relationship in the non-fatigue condition and a near significant inverse relationship in the fatigue condition. Because pre-test card 12 does not appear to measure ego-insufficiency, perhaps the traditional clinical lore of these cards explains this correlation. In some traditional descriptions of hypnotic induction it has been described as an intimate seductive experience. During the hypnotic experience the subject was given the opportunity to put this seductive hypnotist into the

place of his ego ideal. Post-test card 17 then may also pull for homosexual fantasies toward a seductive hypnotist and the subject's unconscious regressive strivings make this hypnotist a desired love object to be put into the place of the ego ideal. Pre-test card 12 known as the hypnotist card also presents an older man standing in a position of power over a supine younger man. This card naturally also pulls for previously described regressive relationship. This may account for the positive relationship between these two items.

The inverse relationship between the items occurs in the fatigue condition. Freudian lore suggests that fatigue works against sexual arousal. As suggested previously, it is possible that under conditions of fatigue, card 12 is picking up ego-insufficiency resulting from antithetic ideas of failure in fantasies of sexual interaction with the female research assistant due to confusion by the unconscious homoerotic fantasies toward the hypnotist. Post-test card 17, which pulls for fantasies of submission, may be expected to be influenced by the hypnotic relationship and the subject's desire to put the powerful male hypnotist in the place of the ego ideal, providing relief instead of ego-insufficiency to be projected onto the card. Therefore the two measures under conditions of fatigue would be inversely related. One limitation of the present study is this composition of the data was not laid out a priori. There is no other theory, however, in my knowledge, that can compose the data in this way, to deal with such complexity in the data.

Likert scale intercorrelations. Freudian counter-will theory predicts that ego-insufficiency reduces conscious expectations of a successful hypnosis experience due to

the subject's putative unconscious antithetical ideas. Desire for success, on the other hand, is simply a necessary condition resulting from a person's ideas of intent with regard to future behavior (Freud, 1892-1893/1966), and Freud offered no suggestions that the counter-will would feedback to affect the conscious level of desire for successful completion of the goal. The theory in question, then, suggests that desire to experience hypnosis and expectations of success are independent of each other.

Nonetheless, demand characteristics, which must be considered in any experimental study, suggest that individuals with a strong desire to be hypnotized (pre-test likert 1) are more likely to expect success (pre-test likert 2) and report success after the experience (post-test likert 2). In fact, pre-test Likert 1 is positively correlated with both pre- and post-test Likert 2 ( $r=.522$  and  $.223$ , respectively) consistent with this assertion (see table 9). In light of this relationship, Freud's counter-will theory suggests that the relationship would be weaker post-hypnotically, when counter-will has had an opportunity to interact with the task and diminish the actual relationship between desire and outcome. This was also corroborated by the data. Likewise, demand characteristics suggest that expectations for success (pre-test likert 2) and reports of perceived success (post-test likert 2) would also correlate. Once again Freudian counter-will theory predicts a weaker relationship between the pre- and post-test conditions, after experience has influenced perception, when compared to the two pre-test questions. This was also consonant with the data ( $p=.522$  and  $.354$ , respectively). It is important to note that because these are different items, there is some unknown degree of item variance reflected in the data.



Table 9

**Intercorrelations Between Likert Scales Items**

Likert Item	Likert 1		Likert 2	
	Pre	Post	Pre	Post
1				
Pre	--	.158	.522**	.223**
Post		--	.109	.140
2				
Pre			--	.354**
Post				--

\*\*p < .01.

As reported earlier, the post-test Likert 1 question was worded in such a manner as to make it ambiguous and difficult to interpret. As expected in light of this discovery, it did not correlate significantly with any of the other pre- or post-test Likert questions. If this question did, in fact, produce more random responses from subjects who had difficulty interpreting it, it would not be expected to correlate significantly with the other questions as the data demonstrated.

Dependent variable pre- and post-test correlations. All the dependent variables were positively correlated with their respective post-test administrations. All but two of these reached statistical significance. One of these two, Likert 1 (see Table 9), was not expected to correlate with the post-test administration for the reasons noted above regarding ambiguous wording. The second measure that did not reach statistical

significance with its post test administration was the TAT 12 (see Table 7). This was also discussed previously and was explained due to the nature of the measure which led it to be sensitive to ego-insufficiency during the post- but not pre-test administration

Hypnotist power and subject desire and expectation. Freudian hypnosis theory suggests that a subject would be more likely to put the hypnotist into the place of the ego ideal, if the object more closely resembles his early omnipotent imagoes. It is a plausible extrapolation that if the introjection is to occur more easily, subjects are likely to be more desirous of such a relationship both prior to and after an hypnotic experience. The correlations reported in Table 10 were consistent with Freudian hypnosis theory and indicated that subjects were more likely to desire a successful hypnotic experience (post-test Likert 1) and feel that this was important to them (post-test Likert 2) if the hypnotist was seen as more powerful.

Table 10

Correlations Between the PPFP and the Likert Items

Likert Item	PPFP	
	Pre	Post
1		
Pre	.127	-.024
Post	.251	.252*
2		
Pre	.107	-.041
Post	.288*	.336**

\*p < .05. \*\*p < .01.

Pre-test administrations of the Likert questions also correlated positively, but not significantly, with the pre-test PPFP. Interestingly, however, both pre-test Likert questions, while not statistically significantly, correlated inversely with the post-test PPFP. The correlation was, in fact, so small that it was likely a result of error variance. As expected by Freudian theory, the pre-test measurement of desire for and expectation of a successful hypnotic induction should be positively related to perceived hypnotist power both before and after the hypnotic experience. The data did was only partially consistent with this retrodiction.

While this is disappointing in light of the desire for all the data to behave consistently with Freud's hypnosis theory, it is noteworthy that the measures were associated consistently with Freud's theory when comparisons were made within versus across pre- and post-test administrations. It may be argued that relationships inconsistent with Freudian theory from the within administration comparisons would have been much more significant in refuting the likelihood for a fair test of the primary hypotheses. The absence of an association between a pre-test desire for and expectation of success and post-test hypnotist personal power, while inconsistent with hypnosis theory, does not refute the possibility of a fair test, particularly in light of the other significant relationships.

Hypnotist power and subject ego-insufficiency. Although hypnotist power and subject ego-insufficiency are measures of the two experimenter controlled independent variables, Freudian theory does provide an interesting suggestion about a relationship between them. While ego-insufficiency should already be active in the fatigued subjects

during pre-testing, the inability of the TAT cards to sufficiently measure ego-insufficiency before an experimental interaction with the desired instrumental activity suggests that both pre- and post-test perceived hypnotist power will be unrelated with the pre-test TAT cards. The data corroborated that conclusion as the pre- and post-test PPFP correlated only slightly and does not approach significance for either pre-test TAT cards (Table 11).

Table 11

Correlations Between the PPFP and the TAT Cards

TAT Card	PPFP	
	Pre	Post
12		
Pre	.107	.078
Post	-.087	-.329*
17		
Pre	.083	-.086
Post	-.144	-.240

\*p < .05.

During post-hypnosis testing, however, the authority of the hypnotist had an extended interaction with the ego-insufficiency level of the subject. Freudian theory suggests that the interaction with a hypnotist perceived as representing an early omnipotent imago will be more easily put in the place of the ego ideal and the subject's wishes will be gratified through placing his executive ego functions into the control of

this authority figure. The level of ego-insufficiency projected on the TAT cards is expected to be less after an encounter with a more authoritarian hypnotist. It was therefore expected that an inverse relationship would exist between perceived hypnotist power and ego-insufficiency after the hypnotic experience. The data was consistent with this expectation (Table 11). Both post-test correlations between hypnotist personal power and subject ego-insufficiency were negative ( $r = -.329$  and  $-.240$ , for TAT cards 12 and 17 respectively).

### Experimental Hypotheses

Following the lead of Meehl (1978), the corroboration of the experimental hypotheses was based on a predicted range of scores (means) generated by counter-will and hypnosis theory. Therefore, the four cells of the 2x2 design were rank ordered as follows along with the theory-based derivation of each position in the succession beginning with lowest susceptibility.

1. Fatigued subjects with a non-authoritarian induction.

The hypnotic relationship, as defined by Freud (1921/1955), is one in which the subject puts the hypnotist in the place of the subject's ego ideal. A non-authoritarian induction style fails to recapitulate the early parental imagoes and reduces the likelihood that the subject enter into such a relationship through putting the hypnotist in the place of the subject's ego ideal. Counter-will theory asserts that the subject's ego-insufficiency,

given expression under conditions of fatigue, will counter his desire to achieve a successful induction, further reducing the likelihood of susceptibility.

2. Non-fatigued subjects with a non-authoritarian induction.

Theory asserts that subjects in this group differ from the prior condition in that the expression of their counter-will was thwarted by their sufficient resources of mental and physical energy. As such, they should be more susceptible than the fatigued subjects also given a non-authoritarian induction.

3. Non-fatigued subjects with an authoritarian induction.

These subjects were also non-fatigued like those in group 2, but received an authoritarian induction. Theory predicts that the authoritarian style of the hypnotist will more closely resemble the subject's early parental omnipotent imagoes facilitating their desire to enter into the hypnotic relationship. These subjects, therefore, should be more susceptible than those in group 2.

4. Fatigued subjects with an authoritarian induction.

Finally, the fatigued subjects in this condition will be even more susceptible to hypnosis than the non-fatigued, authoritarian group because theory asserts that the counter-will maximized the desirability of entering into a hypnotic relationship with a

powerful authority figure to whom the subject may relinquish control of their executive ego functions, thereby diminishing the fear of failure resulting from increased feelings of ego insufficiency.

All comparisons were planned; that is, dictated by counter-will and hypnosis theory, and, therefore, permitted one-tailed tests. Obviously, if the extremes were not significantly different, none of the experimental hypotheses could be corroborated. The specific hypotheses (planned comparisons) of particular interest to the present investigator, were also subjected to mean contrasts.

The probability of obtaining an a priori predicted rank order by chance for 4 levels of susceptibility is .042. In light of the theoretical derivation of the rank order predictions, and in accord with Kirk (1968), if the predicted order is obtained, a one-tailed mean comparison between the extreme levels of susceptibility will be satisfactory to demonstrate the statistical significance of the data in corroborating the underlying theory.

**Hypothesis I.** This hypothesis, which asserts that an authoritarian induction style maximizes hypnotic susceptibility, was corroborated by the data. An independent samples t-test was performed on the means of hypnotic susceptibility collapsed by induction style and produced a significant result ( $M[\text{authoritarian}] = 6.18$ ,  $M[\text{non-authoritarian}] = 4.38$ ,  $t = 2.59$  (63),  $p < .01$ ).

**Hypothesis II.** This hypothesis asserts that activation of the counter-will reduces hypnotic susceptibility. The hypothesis was not supported by an independent samples

t-test that compared the means of subjects exposed to fatigue and those in the normal waking/non-fatigued control group ( $M[\text{fatigue}] = 5.39$ ,  $M[\text{non-fatigue}] = 5.19$ ,  $t = .28(63)$ ).

**Hypothesis III.** The third hypothesis asserted that induction style and fatigue induced counter-will interact to produce a predictable rank order of hypnotic susceptibility based on Freud's theories of hypnosis and counter-will. Specifically the predicted rank order is as follows from lowest to highest susceptibility:

1.     Fatigued subjects with a non-authoritarian induction
2.     Non-fatigued subjects with a non-authoritarian induction
3.     Non-fatigued subjects with an authoritarian induction
4.     Fatigued subjects with an authoritarian induction

The data corroborated the hypothesized interaction between counter-will and induction style (see Table 12). Not only was the mean difference significant as tested by an independent samples t-test between the two extreme ranked variables, but the difference was also significant for between variables rank ordered 1 and 3 and variables rank ordered 2 and 4.

### **Additional Findings**

Two indices of the Draw-a-Person test (DAP) were used to test for an alternative conceptualization to Freud's intrapsychic counter-will theory. The second of Freud's counter-will formulations suggested a rebellious reaction toward an external authority.



**Table 12**

**Mean Comparisons of Experimental Groups Rank Ordered by Hypnotic Susceptibility**

<b>M</b>		<b>M</b>	<b>df</b>	<b>t</b>
1	<b>Ranks</b>	4		
6.47		4.25	31	2.08*
1	<b>Ranks</b>	3		
6.47		4.50	31	1.81*
2	<b>Ranks</b>	4		
5.88		4.25	30	1.82*

**Note:** Rank orders represent the following experimental conditions: (1) fatigued subjects with an authoritarian induction; (2) non-fatigued subjects with an authoritarian induction; (3) non-fatigued subjects with a non-authoritarian induction; (4) fatigued subjects with a non-authoritarian induction.

**\*p < .05. Independent samples t-test**

The DAP was included to test for consistency of the data with attempts at minimization of the extrapsychic counter-will's impact on the experimental procedure.

DAP intercorrelations. Freud's second theory of the counter-will, as a reaction toward an external authority suggests that both DAP measures of contre-coup (size and displacement from center) should correlate positively with each other during both pre- and post-test administrations. In fact, all correlations were in the positive direction and four out of the six reached statistical significance (Table 13)

Table 13

Intercorrelations Between DAP Items

DAP Item	Size		Displacement	
	Pre	Post	Pre	Post
Size				
Pre	--	.801**	.350**	.297*
Post		--	.150	.203
Disp				
Pre			--	.626**
Post				--

Note: Disp=displacement from center.

\*p < .05. \*\*p < .01.

The two correlations which did not reach significance were accounted for by the post-test size of the drawing compared with both pre- and post-test displacement items ( $r=.150$  and  $.203$ , respectively). In light of previous analyses and discussion, Freud's extrapsychic counter-will theory predicted that a contre-coup reaction should be weaker after the wish to oppose an external authority is satisfied in the hypnotic experience. This is consistent with the data. All of the post-test correlations are weaker than pre-test correlations. Once again, all of the correlations are in the direction expected by Freudian theory.

Hypnotic susceptibility and the DAP test. Correlations between hypnotic susceptibility and the DAP size and displacement from center items were not expected to reach significance as the present study attempted to minimize contre-coup effects toward external authority. Nonetheless, if the measure is to be successful in distinguishing between the intrapsychic and extrapsychic formulations of Freud's counter-will theory, the items should still behave as predicted by Freud's extrapsychic formulation. This formulation suggests that an inverse relationship exists between the contre-coup reaction and hypnotic susceptibility. This was consistent with the data presented in table 5, which demonstrated an inverse trend but failed to reach statistical significance.

Of interest, while neither DAP size nor displacement reached significance, size demonstrated a much stronger relationship with susceptibility than displacement. There is no theoretical reason this should be so, and the measures correlate well with each other (see DAP intercorrelations). A possible explanation resulted from further analysis of the measure's frequencies while looking for indicators of increased sensitivity of the size

variable. Size was scored on a scale from 1-9 and demonstrated good distribution across the entire range of possible values ( $M=4.7$ ,  $SD=2.42$ ). Displacement, on the other hand, was measured with a range of 0-2 and the distribution was significantly skewed with all subject's scoring a 0 or 1. It is likely that the difference in sensitivity to the contre-coup effect was an artifact of scoring and an improved scoring system for displacement would generate more equal sensitivity to the contre-coup reaction of the extrapsychic counter-will.

Perceived power of the hypnotist and contre-coup. Freud's extrapsychic formulation of the counter-will makes predictions which at first glance do not appear to be corroborated by the data presented in Table 14. The theory suggests a positive relationship between contre-coup reactions and perceived external authority. The data, however, appeared to suggest the exact opposite relationship, with the exception of one very weak correlation in the expected direction.

The data was further explored in an attempt to explain this inconsistency. Table 15 presents the correlations after subjects were dichotomized into two groups: Based on their ratings of hypnotist power, subjects were assigned to low or high hypnotist power conditions. With this dichotomization the data appeared to behave more consistently with Freud's extrapsychic counter-will theory.

As expected, all four correlations between DAP size and pre-test perceptions of personal power were in the positive direction. The results demonstrated a positive relationship between contre-coup reaction and a perceived external authority. Only one of the displacement correlations was in the positive direction with pre-test authority.

Table 14

Correlations between the PPFP and the DAP Items

DAP Item	PPFP	
	Pre	Post
Size		
Pre	-.065	-.218
Post	-.155	-.208
Disp		
Pre	-.196	-.211
Post	-.034	.053

Note: Disp=displacement from center.

Table 15

Correlations Between High and Low Dichotomized PPFP Ratings  
and the DAP Items

DAP Item	PPFP	
	Pre	Post
Low		
Size		
Pre	.027	-.192
Post	.069	-.033
Disp		
Pre	-.355	-.393*
Post	-.190	-.337
High		
Size		
Pre	.258	-.466**
Post	.191	-.529**
Disp		
Pre	-.208	-.412*
Post	.058	-.196

\*p < .05. \*\*p < .01.

This was in the high power condition: For subjects in the low hypnotist power group, DAP displacement was inversely related to perceptions of hypnotist power. One possible explanation for this is that in conditions of low hypnotist power, subjects not only dismiss the need to rebel against the external authority figure, but may in fact, reverse their behavior in order to continue their rebelliousness, in essence, taking over by becoming more compliant with less powerful hypnotist. This remains an antagonistic attitude now that the subject's expectations of authority have not been met. It is also possible that due to the artificially constricted range of responses possible on the displacement from center item that these correlations are less likely to be valid than the size data.

There are some additional predictions Freud's extrapsychic counter-will formulation posit which can be analyzed in this data. In the pre-test PFP condition all DAP correlations were stronger in a positive direction in the high hypnotist power group than for the low hypnotist power subjects. This is theoretically consistent, as subjects should experience more contre-coup reactions toward more powerful external authorities.

All four pre-test PFP correlations with the DAP items became significantly more inverse in the post-test condition, for both low and high hypnotist power situations. This difference was even more pronounced in the high hypnotist power condition. This suggested that subjects who have a need to react against an external authority figure experience a declining need to express their rebelliousness after the opportunity for expression during interaction with the perceived authority. While this is consistent with Freud's extrapsychic version of the counter-will theory, it is in contrast to some anecdotal data from Shevrin (1972) which indicated unconscious rage toward the hypnotist after an induction experience.

Relationship between fatigue and the DAP. If the counter-will was activated by extrapsychic motivation it was expected that the DAP would result in larger figures placed toward the center of the page, suggesting a rebellious posture toward the hypnotist. Results were consistent with the procedural attempt to minimize activation of this external counter-will (see table 16). The pre-test DAP displacement was significant in the opposite direction than would be expected for the extrapsychic counter-will. DAP displacement-post did not reach significance, but it was also in a direction inconsistent with an extrapsychic version of the counter-will.

Both pre- and post-test DAP size also failed to reach significance, again corroborating the success of the study in eliminating this alternative extrapsychic version of the counter-will from interfering with a test of the intrapsychic theory.

Table 16

Mean Comparisons of DAP Items by Fatigue

Item	Fatigue <sup>a</sup>	Non-fatigue <sup>a</sup>	df	t
Size				
Pre	4.53	4.87	59	0.54
Post	4.43	4.19	59	-0.38
Displacement				
Pre	.30	.10	59	-2.02*
Post	.27	.10	59	-1.73

<sup>a</sup>values represent group means.

\*p < .05.



**Implications of the DAP results.** Data appeared to corroborate the use of the DAP as a measure of Freud's extrapsychic formulation of the counter-will. The data behaved mostly as expected by the theory. More importantly for the present study, however, the DAP data was consistent with activation of an extrapsychic counter-will resulting from this study's fatigue manipulation. This is consistent with the behavior of the dependent variables which acted in consonance with Freud's intrapsychic counter-will. The attempts of this study's procedures to minimize activation of externally motivated participation while allowing for the stimulation of an intrapsychic counter-will appear to have been successful.

In addition, the previously mentioned exploration of the relationship between the TAT responses and low versus high susceptibility subjects provided mutually exclusive expectations resulting from these two formulations. In accordance with Platt's (1964) idea of strong inference, the data was composed in accord with Freud's intrapsychic theory.

## CHAPTER 4: GENERAL DISCUSSION

### Major Findings

This study not only corroborated Freud's theory of counter-will, but in concert with his theory of hypnosis (hypnotist is put in place of the ego ideal), the rank ordering of susceptibility for each of the four experimental groups was successfully predicted. In addition, the preliminary analyses demonstrated that the data was composed consistently with Freud's later background theory - topographical theory.

Freud's hypnosis theory was corroborated in that an authoritarian induction method was more effective in producing susceptibility than a less authoritarian style. Theory asserted that an authoritarian hypnotist would more closely resemble the subject's early omnipotent parental imagoes, resulting in a greater likelihood that he would put the hypnotist in the place of the subject's ego ideal. Theory suggested that an increase in the likelihood of the subject putting the hypnotist in the place of the ego ideal would result in greater susceptibility.

Freud developed multiple formulations of the counter-will but the one underlying this study's hypotheses is the earliest -- his intrapsychic counter-will theory. When the second experimental hypothesis, which asserted that counter-will reduced susceptibility, was interpreted in isolation, it appeared to be inconsistent with the core commitments of counter-will theory. Freud asserted that conditions of fatigue allowed for the expression of antithetic ideas which resulted in the development of ego-insufficiency in the individual's ability to successfully complete an instrumental activity. This intrapsychic counter-will acts contrary to the individual's conscious desire and diminishes the

likelihood of success in the activity. However, in light of a hypothesis of an interaction, the interpretation of main effects of both induction style and counter-will become problematic. The interaction, in fact, sheds some light on the insignificant main effect of counter-will on susceptibility.

Specific rank order predictions of an interaction between induction style and counter-will were derived from a heretofore overlooked combination of Freud's intrapsychic counter-will and hypnosis theories. The ranks were corroborated by an empirical test of the data. As predicted, subjects who were fatigued to stimulate counter-will and given an authoritarian induction were the most susceptible to hypnosis. The counter-will was predicted to increase the likelihood of putting the hypnotist in the place of the subject's ego ideal when compared to subjects in a normal waking/non-fatigued condition which the counter-will is not expressed. Counter-will and hypnosis Theory predicted the normal waking group receiving an authoritarian induction would be one step down from the most susceptible condition. One step less susceptible than non-fatigued subjects given an authoritarian induction were non-fatigued subjects who received a non-authoritarian induction. Finally, susceptibility was reduced the most in subjects who were fatigued and underwent a non-authoritarian induction.

### **Clinical Implications**

Numerous studies have been conducted to demonstrate methods to increase hypnotic susceptibility or elucidate factors related to increased susceptibility (for discussion see Bowers, 1976; Spanos & Chaves, 1989). The present study is the only one found in the literature that identified specific theory predicted conditions which resulted

in reduced susceptibility. Reported norms for subjects in the 18-24 age range are approximately 7 on the Stanford Hypnotic Susceptibility Scale (Bowers, 1976). That compared with the most susceptible group in the present study. A natural question, of course, is why would anyone want to reduce hypnotic susceptibility. Besides the importance of protecting individuals from mind control (with apologies to our modern day marketing gurus), the benefit of understanding under what conditions subjects are less susceptible to induction lies in providing the clinician some direction when searching for explanations for why their patient experienced a less than optimal induction. Rather than give up on hypnosis as an intervention strategy in the patient's treatment, the hypnotist can now look at induction style and fatigue, to change susceptibility limiting conditions. These findings suggested that style of induction or conditions of fatigue may be manipulated to alter the patient's level of susceptibility. Although some clinicians are predisposed, through training and personal philosophy, to a non-authoritarian style of induction, this is not the first line of research to suggest that, in the face of less than optimal success with hypnosis, the use of a more authoritarian method may increase susceptibility. After a review of theory, methodology and relevant research, Reyher (1977) suggested that doctors adopt an authoritarian, paternalistic demeanor to increase "hyper-suggestibility" by making the hypnotic relationship more attractive in light of their acutely ill patient's increased dependency striving.

It is interesting to compare the current study's data with previously reported norms of susceptibility. Bentler and Hilgard (1963, cited in Hilgard, 1965) reported a mean susceptibility score of 6.44 on the Harvard Group Scale when subjects were individually tested. Morgan and Hilgard (1973) reported mean scores of just under seven



on the Stanford Hypnotic Susceptibility Scale: Form A for individually tested 17-24 year old subjects. The current study produced a mean for fatigued subjects given an authoritarian induction at 6.47. This is consistent with the average overall susceptibility reported for subjects in the same age range. The present study succeeded in corroborating theory driven predictions of conditions which act to decrease hypnotic susceptibility. Non-fatigued subjects given a non-authoritarian induction demonstrated a 30% reduction in susceptibility while fatigued subjects given a non-authoritarian induction demonstrated 34% less susceptibility to hypnosis than the fatigued subjects undergoing an authoritarian induction.

### Issues of Theoretical Validity

Although there is a difference in the interpretations warranted from preliminary analyses versus experimental hypotheses involving manipulations of independent variables, these preliminary analyses “*can* disconfirm some hypothesized relationships, and in this sense they are capable of corroborating a hypothesis” (p. 661, Mahoney, 1978). Previous research has demonstrated the importance of preliminary analyses, beyond the independent variable manipulation checks, in determining whether data behaved consistent with the study’s underlying theory (Dammann, 1997; Graham, 1995; Tobias, 1993).

This assertion was corroborated in the present study. If an analyses of the data to determine whether a fair test of the experimental hypotheses was possible began and ended with the manipulation checks, the study would be beset with ambiguity. The counter-will and induction style manipulations were not corroborated by analyses of the

TAT cards, Likert questions and PFP items. However, a significant effect was demonstrated on hypotheses I and III. Kazdin (1980) stated that the strongest corroboration of a theory is significant results on the experimental hypotheses. Without the benefit of the preliminary post-hoc analyses to explore consistency with the underlying theory, these results would be difficult, if not impossible, to interpret. The preliminary analyses produced numerous findings consistent with both Freud's intrapsychic theory of the counter-will and his theory of hypnosis.

Of particular note, the TAT cards, used as measures of ego-insufficiency from an intrapsychic counter-will, demonstrated the superiority of the intrapsychic theory over an alternative extrapsychic formulation in explaining differences in subjects' responses to the cards. Change in levels of ego-insufficiency after the hypnotic experience were expected to differ for high susceptible subjects as compared to low susceptible subjects. Specifically, intrapsychic counter-will theory predicted the hypnotic interaction would produce an increase in ego-insufficiency in low susceptible subjects and a decrease in high susceptible subjects. The extrapsychic formulation, on the other hand predicted the opposite reaction -- a decrease in ego insufficiency in low susceptible subjects and an increase in high susceptible subjects. Data was consistent only with the intrapsychic theory.

Preliminary analyses with the Likert Questions, which measured conscious desire for and expectations of induction success, and the Personal Power Functions Profile Scale also corroborated the expected relationships based on Freud's counter-will and hypnosis theories. These findings suggested that manipulation checks do not stand alone in determining whether the primary experimental hypotheses received a fair test. The

present study indicated that manipulation checks may, in fact, be less important than preliminary analyses in examining the core commitments of a research program.

### Clinical Implications

A particularly interesting finding to come out of the preliminary analyses was the relationship of the TAT cards to measuring ego-insufficiency before versus after the experimental manipulation. According to clinical lore, the TAT cards chosen for the study pull for different unconscious material. Accordingly, I was not surprised that the cards were not related prior to the experimental manipulation. In the pre-test condition, only the fatigued group of subjects had an experimental manipulation of their counter-will, and as such, pre-test comparisons were expected to produce unrelated scores of ego-insufficiency. After the hypnotic experience, when the subjects' ego-insufficiency had an opportunity to interact with the instrumental activity imagined in their ideas of intent, the cards were expected to correlate positively. The data was consistent this assertion of Freud's counter-will theory.

These results add to the body of literature on the clinical application of the TAT cards, and quite possibly all projective measures. Prior to an experimental manipulation divergent unconscious material was projected onto the different cards. It would be more difficult to interpret unconscious processes based on the wide breadth of material likely to be projected onto cards that are not related to each other, particularly when scoring them for some expected dynamic. After a clinical treatment, however, as with an experimental manipulation, the patient cannot help but project the effects of the treatment onto the cards. This study suggested that after an interaction, deliberately designed to stimulate a



dynamic to be scored in the TAT stories, the cards will not only be sensitive to that projected material, but previously unrelated cards will be directly and positively related to each other, thus adding to the strength of interpretations in assessing outcome of the treatment. This finding of a dynamic being manifested only after some interaction was reported by Reyher (1977), albeit not with the same purpose in mind. He analyzed the results of studies by Gur (1973), Gur and Reyher (1974), and Smyth (1977) and reported the threat of a painful shock increased dependency strivings in subjects. Reyher found that these strivings, however, were only actualized when the experimenter was physically present. Otherwise, the subjects had to rely on their own coping mechanisms. Similarly, ego-insufficiency was manifested in the TAT responses only after an interaction with the hypnotist. This has current practical implications in the area of outcome studies in clinical psychology. Effective measures of outcome are currently lacking in the field. This study suggests that projective testing may be a useful addition to a treatment outcome measurement battery. This is particularly salient when it would be helpful to demonstrate a change in patient dynamics as a result of treatment effects. In the current era of managed care and debates about the relative merits of effectiveness studies versus efficacy studies (for discussion see Seligman, 1998) projective tests may offer an additional tool for demonstrating the benefits of treatment strategies to other practitioners, patients, and insurance companies.

## **APPENDICES**

## APPENDIX A

### The Counter-Will

#### Freud's First Formulation

Those familiar with Freud's writings have consistently reported that it is possible to distinguish numerous reorganizations of his model of the human mind and behavior. Confronted with a colleague who claims adherence to Freudian theory, one might understandably ask, which Freud? Numerous divisions have been outlined with regards to this evolution of Freud's thought. Among others, authors have referred to the topographical and structural models; and id psychology and ego psychology (Fine, 1987). Reading Freud's works chronologically one quickly encounters A Case of Successful Treatment by Hypnotism (1892-1893/1966). Notably, however, this paper is often ignored in recent analyses of Freudian thought, possibly because Freud himself altered much of his thinking and writing style in successive papers. It would be proper to place this paper before the beginning of his topographic model--pre-topographical. This paper must be taken into account, however, if one is to understand Freud's concept of the counter-will and its vicissitudes over the course of his writings.

Freud used this paper to introduce the idea of the counter-will. He wrote of a woman he treated who was unable to breast feed her new born infant. When he first confronted the patient, Freud (1892-1893/1966) found her lying on her bed, "furious at her inability to feed the baby--an inability which increased at every attempt but against

which she struggled with all her strength" (p. 119). Freud suggested that her inability to feed the infant was a result of her counter-will.

Freud proposed two ideas people have which become bound with an affect of expectancy--intentions and expectations. Intentions are those ideas which include our desires to do something, while expectations are thoughts of events which we anticipate may happen to us. The affect coupled to these ideas depends on two factors--the amount of importance we attach to the event and the level of uncertainty of the act taking place. Freud does not return to a discussion of the relative importance of the event until much later in his writings but chose instead to focus on the individual's "subjective uncertainty" made up of what he called "distressing antithetic ideas."

These antithetic ideas run counter to the person's intentions and expectations in characteristic ways. If they develop in relation to expectations, they include ideas that everything will happen to the individual other than that for which the person hoped. In relation to intentions, which appeared to hold a greater interest for Freud as he chose to focus most of his attention on them, the individual develops antithetic ideas that they, themselves, are unfit and won't succeed in the act they are attempting to carry out. This may be referred to as a sense of "ego insufficiency."

A patient experiencing the dysphoric mood and diminished self-confidence which accompanies a neurosis, may experience an intensification of antithetic ideas toward either expectations or intentions. Freud continued to distinguish between these and suggested that when the magnification is experienced in relation to expectations it results in a generally pessimistic mood about the likelihood of success. Acting on intentions, the

antithetic ideas may augment either a conscious or unconscious sense of the person's own ego insufficiency.

Whether the ego insufficiency will remain conscious or unconscious depends on the particular neurosis which the patient suffers. If neurasthenia, what we might today call a general or chronic fatigue syndrome, the patient will experience a conscious weakening of their will. The antithetic ideas are subtracted from the person's ideas of determination and result in a conscious sense of ability that is weaker than would otherwise be experienced without the antithetic ideas.

In the case of hysteria, there is a "perversion of will" rather than a "weakness of will." In this case, the antithetic ideas are dissociated from conscious intent, but remain active in the unconscious mind. Freud suggested that the disconnected antithetic ideas now have the ability to put themselves into action in the same manner as we consciously translate ideas into motor behavior. This is what Freud referred to as the counter-will. The antithetic ideas, although out of awareness to the individual, act as an opposing force to the conscious intentions and create "a will which is resolute but powerless" (p. 122).

Freud suggested that healthy individuals do not experience this counter-will because they are able to suppress antithetic ideas, not allowing them to subtract from the conscious resolve of will. When a person experiences a partial exhaustion, the condition necessary for the expression of the counter-will, Freud posited that only the conscious portion of the individual's associations are fatigued. This leaves the antithetic ideas, which have been suppressed into the unconscious, to dominate and gain expression contrary to the individual's conscious wishes. It is for this reason that Freud's first patient

"struggled with all her strength" but remained unable to fulfill her conscious desire to feed her infant.

On a number of occasions, Freud pointed to fatigue or preoccupation to explain the facilitation of unconscious processes. He suggested that being ill, fatigued or distracted were often preconditions for slips of the tongue (1916/1963). Although Freud seemed to back away from fatigue as a necessary precondition for these slips, he stated quite clearly that "slight illness, disturbances of the circulation or states of exhaustion...facilitate and favor the peculiar mental mechanism of slips of the tongue" (1916/1963). Fatigue, both physical and mental, is clearly put forth not as a complete exhaustion, but a partial one which allows for the expression of unconscious antithetic ideas and intentions over an individual's tired conscious desires.

### Case Histories

The first instance in which Freud uncovered the origin of an hysterical symptom brought about by the counter-will was with a patient (Frau Emmy von N) who produced a tic like "clacking" noise which intruded during conversations (Freud, 1893-1895/1955; 1895/1962). Under hypnosis, Freud was able to discover an early incident in which the patient tried to remain absolutely silent after her child, who had convulsions all day, finally fell asleep. She recalled saying to herself that she must remain silent but suddenly found herself producing this loud clacking noise. The same symptom reappeared during a carriage ride in a thunderstorm in which she was asked to remain silent so as not to scare the horses. Again the clacking noise appeared although her conscious intent was silence. Freud suggested that the exhausted state of the mother, "worn out by anxieties and her

duties as a nurse," allowed her unconscious antithetic idea, that she would in fact make a loud noise, to overcome her conscious desire for silence.

Freud (1893-1895/1955) suggested that the counter-will is one explanation for the common finding that hysterics often produce a symptom exactly opposite their conscious desire. He mentioned as examples, the nuns of the Middle Ages who shouted out vulgar sacrilegious words, good mannered boys who suddenly turned abusive, a patient who appeared sickest precisely when he most wanted to be well.

### Sexual Impotence

In a later paper, Freud (1912/1957) referred to the counter-will interfering in the ability of a man to engage in successful sexual activity. He reported that some men indicate a "sense" that although they intend to engage in sex, they seem to be rendered impotent by some internal obstacle. Although Freud by this time turned his attention away from the etiological implications of a prior traumatic event connecting itself to the sexual act, and focused instead on oedipal fantasies and psychosexual processes, he still implied that the counter-will was intrapsychic in nature.

There is an unconscious process made up of antithetic ideas, in this case the perversion of will Freud associated with hysteria as opposed to the weakness of will of neurasthenia, which gains the upper hand against the man's desire to engage in intercourse. Freud identified conflictive fantasies as the psychical mechanism which resulted in the counter-will. It is reasonable to propose that the unconscious psychical conflict may, in itself, create the partial exhaustion which Freud proposed would facilitate the counter-will's expression. Freud hinted at this briefly when he suggested that "the

hysterical condition (*the exhaustion which facilitates the counter-will*) may perhaps be *produced* by the laborious suppression" of antithetic ideas (Freud 1892-1893/1966).

### Primal Words

In *The Antithetical Meaning of Primal Words*, Freud (1910/1957) explored another potential psychical mechanism for the development of the counter-will. In this paper he described the findings of the philologist Karl Abel. Abel described how in some of the oldest languages known, such as Egyptian, a word may at the same time mean both that word and its exact opposite. For example, the word good, would mean both good and bad; strong, both strong and weak. In addition, Abel reported that these cultures sometimes combined two words of opposite meaning in order to imply just one of the meanings. In this case, one might say hot-cold to indicate hot, or day-night in reference to daytime. Freud suggested that this was not so surprising, and resulted from the fact that we can only understand a thing by comparison to some other thing, the most obvious choice being its opposite. We understand what light is because we can compare it to darkness. For the same reason, a therapist may refer to the need for sadness in order for an individual to understand happiness. Our earliest languages reflected this need for comparison. Eventually the need for conscious comparison became unnecessary, and as such it disappeared from our overt language. In his own footnote, Freud indicated that "the original antithetical meaning of words exhibits the ready-made mechanism which is exploited for various purposes by slips of the tongue that result in the opposite being said" (Freud, 1910/1957, p. 161). It is quite possible that this is also the primitive



mechanism for the development of the counter-will, those thoughts which represent the opposite of our conscious intentions.

### Later Formulations of the Counter-will

In another paper, Freud (1901/1960) re-introduced the counter-will with a new meaning. The counter-will was used to describe "unknown and unavowed *motives*." This is a significant departure from the prior view of the counter-will emanating from antithetic *ideas*. Freud now implied that the counter-will is in fact made up of antagonistic *intentions*, and not merely ideas which are opposite in nature to the conscious intentions. For example, Freud described an incident in which a lieutenant in a prisoner of war camp intended to transfer a prisoner with whom he was in conflict. He was convinced to let the prisoner remain, but during roll call, something at which he had never previously erred, he did not read the prisoner's name off his printed list. This resulted in the prisoner having to remain at attention, sticking out, while the others were dismissed. Freud suggested that the counter-will, in this case the lieutenant's first intention, was able to "break" through into his behavior. There is no mention here, however, of a necessary precondition, such as exhaustion, which facilitated the power of the counter-will. Instead, there exists an alternative antagonistic motive to explain the behavior.

It is possible that the change in formulation presented here refers not to the same phenomenon which the counter-will previously described, but a slightly different counter-will. The counter-will he referred to in the Psychopathology of Everyday Life (1901/1960) is made up of counter-intentions, or sometimes, as Freud put it, "the forming

of spurious intentions." This seems to be a different counter-will, than that which takes its form from antithetic ideas generated by an insufficient ego. The latter presumes a contest between two mutually exclusive intentions, whereas the former presumes a struggle between a conscious desire and the unconscious fear that one will be unable to perform the task demanded.

In a later chapter of the same work, Freud presented more slips of a colleague, J. Starcke, which also demonstrated a counter-will. One of the differences between these examples and the earlier formulation of the counter-will is the source or stimulus for the individual's intention. In the case of the Lieutenant, Starcke's examples, and Freud's own slip involving his publisher (Freud, 1901/1960) all of the intentions subjugated by a counter-will had an external source. The individual's conscious intent arose from a specific demand by another person. In the earlier formulation, Freud described cases in which an individual's intentions were intrapsychic. These intrapsychic desires may be thought to have come into existence first, and then were subtracted from by the antithetic idea that the individual's ego might be insufficient to carry out the intention. It appears that in the second formulation the conscious intent, which arose in response to an external constraint, is preceded in existence by a primary unconscious or conscious desire which is antagonistic to the enactment of the secondary intention. For example, in the case of the lieutenant, his conscious intent was to allow the prisoner to remain in the camp and read his name as usual. This intent developed in response to the influence of others in the camp. The first desire, antagonistic to the conscious intent, was to get rid of the prisoner. It was this first intent which was translated into behavior as the counter-will.

Although he presented this new formulation, Freud did not completely abandon his earlier conception of the counter-will. In this same work, he described a Roman who gave up an intention after stumbling at a door, presumably because of a sixth sense arising out of his superstitions. In this case, we have an example of a primary intention being stimulated intrapsychically, and Freud described the Roman's "doubt" as "a counter-current at work within him, whose force might at the moment of execution subtract from the force of his intention" (Freud 1901/1960, p. 259). Freud referred here to his first formulation (1892-1893/1966) in which he stated that antithetic ideas are subtracted from the person's ideas of determination and give rise to one conscious sense of ability. The Roman's stumble simply gave him a glimpse of his unconscious antithetic idea which led to a sense of ego insufficiency--a doubt.

#### Hypnosis and the Intrapsychic Counter-will

In the case of a voluntary hypnosis, it is the first form of internal desire or intrapsychic intention which is being stimulated. The subject finds himself in a situation in which his striving for a passive, regressive relationship may be satisfied by release to the control of a paternal imago. In particular, Freud (1913/1955) spoke of the imago of the primal father or chieftain, who was both killed and devoured by his children. Freud suggested that the sons ate the father in a symbolic attempt to introject the powerful figure into themselves. This may also be extended to the hypnotic relationship in which the subject attempts to accomplish the same total introjection through the placement of the hypnotist into the subject's ego ideal.

In a research design theoretically bound to this first formulation, it is important to eliminate external sources of constraint on the subjects' participation with the experiment. To be a true voluntary hypnosis experience, any requirement, obligation, or external reward for participation should be avoided.

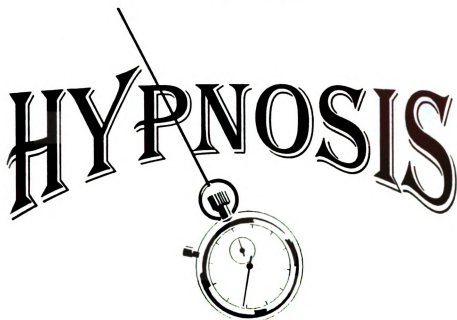
Freud (1901/1960) also mentioned a third (although he considered it a second) form of the counter-will. With regard to forgetting intentions, he described a counter-will which may be turned directly against the intention (which fits both prior formulations) or may be the result of an "external association." Here Freud returned to a question he posed but left unexplored in his original paper. He stated that one of the important determinants of how much affect was coupled with the intentions or expectations of the individual was the relative importance ascribed to it. Freud only now returned to this issue when he suggested that it was the important intentions which the counter-will acted directly against, but if an individual was relatively indifferent to an intention, the counter-will would not act against the intention. Instead, the intention, being insignificant and therefore not conflictive to the individual, merely provided a pathway for some un-associated material to come up from the unconscious and arbitrarily impede the carrying out of the intention.

It may be inferred that if a subject is going to take the time to volunteer for a hypnosis experience, and then show up for it, it is most likely of enough importance that it is not completely dismissed of conscious attention. In addition, the potential for a hypnotic relationship attracts the subject's unconscious longing to re-enter a regressive-dependent transference relationship (Reyher, 1977; Gill & Brenman, 1959). Therefore,

**Freud's third conception of the counter-will is not theoretically appropriate for understanding the hypnotic situation.**

APPENDIX B:


Advertisements



 **Volunteers Needed**

 **Men**

 **Ages 18-35**

 **Participate in research looking at the relationship between hypnotic susceptibility and daily circadian cycles.**



*For information  
or to sign up for a hypnotic session  
please call*

**336-0222**


*Leave a message*

Figure 1: Hypnosis Advertisement Hand-bill.


# HYPNOSIS IV/PMOS

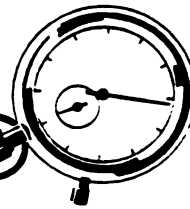


## Volunteers Needed

 Participate in research looking at the relationship between hypnotic susceptibility and daily circadian cycles.

 Men

 Ages 18-35



For information

or to sign up for a hypnotic session please call

336-0222

Leave a message



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Figure 2: Hypnosis Advertisement Flyer

## **APPENDIX C:**

### **Modified Stanford Hypnotic Susceptibility Scale Research Protocol for HIRP**

#### **Authoritarian Induction**

##### **1. POSTURAL SWAY (Time: 2 minutes)**

**"To begin with, I want you to experience how it feels to respond to suggestions when you are not hypnotized."**

**Saying this the hypnotist should begin to stand up and move to whatever position he will have when testing for postural sway, continuing with:**

**"If you will now please come and stand with your back to me. . ."**

**If necessary the experimenter should guide or indicate by gestures or by additional instructions the manner in which he wants the subject to stand, which should be about a foot away directly in front of him. Should a female subject be wearing high heel shoes, she should be requested to remove these, then positioned properly and instructed as follows:**

**"Place your heels and toes together, hands by your sides. Head up."**

**The head should be level. If necessary, guide it to the proper position with your hand.**

**"Now close your eyes and relax, just relax."**

**At the end of this period, the four-part suggestion list below is given in a relatively uniform tone and with moderate volume, reading verbatim from the instructions. Note is taken of when the response and when (i.e., in which of the four sections) it first occurred. If the subject falls outright, the suggestions end then and there: go directly to the final section (5').**

**(1) "In a moment I will ask you to think of swaying backward. As you know, thinking of a movement and making a movement are closely related. Soon after you think of swaying you will experience a tendency to make the movement. You will find yourself actually swaying backward, more and more backward, until you will sway so far that you will begin to fall. When this happens allow yourself to fall. I am right behind you and I promise you I will not let you fall very far. Here . . . let me show you how it will be."**



Grasp the subject by the shoulders and gently but firmly pull him backward until he falls. By a "fall" is meant only loss of balance: the hypnotist catches the subject before he has fallen very far. Standing about a foot behind the subject makes it easy to place the hands behind the shoulders and stop the fall even of a subject much heavier than the hypnotist. Should the subject show any signs of resistance to falling, point this out to him and caution him against resisting in this manner.

(2) "All right . . . listen carefully to what I say and begin to think of swaying backward, of falling backward. You are soon going to start swaying backward. You are going to sway backward, more and more backward."

(3) "You are now beginning to sway backward. You are swaying backward. More and more backward. You are swaying more and more backward. You are swaying more and more backward. You are going backward, backward."

(4) "You are falling backward, swaying backward, falling backward, swaying backward, falling backward, falling backward, falling backward, backward . . . You are falling, falling, falling . . . FALL!" (Score here.)

(5) (If no fall occurs:) "That's fine. Now you see how thinking about a movement produces a tendency to make the movement.

"It will help you to learn to become hypnotized if you can bring yourself to give in a little more to your action tendencies. This time I want you to let yourself go and actually fall, but wait until the tendency to fall is pretty strong." (Repeat paragraphs (2), (3), and (4) above. If the subject does not fall with these suggestions, repeat again in a form to induce a voluntary fall. Every subject should fall before going on to the next instruction, although of course such an invited fall is not scored as a success.)

(After the fall:) "Good; you now know what it feels like to accept and act upon suggestions."

(5') (If fall occurs:) "That's fine. Now you see how thinking about a movement produces a tendency to make the movement."

Seat the subject in a chair, and record the score. Score (+) if fall occurs within the first reading of paragraphs (2) to (4) above. Go to Instruction 2. Eye Closure.

## **2. EYE CLOSURE (Time: 15 minutes)**

The hypnotist stands in front of the seated subject holding a small bright object in such a way that a seated subject must turn his eyes upward to look at it. It is held at least one foot from the eyes of the subject. A subject who wears glasses should keep them on; contact lenses should be removed. The subject is comfortably seated in an upright upholstered armchair, with the back high enough to support the head. Because this is a standard induction, the individual sections are timed to indicate an approximate reading rate.

"Look at this small bright \_\_\_\_\_ above and in front of you? Good. That is what I shall mean by the 'target.'"

(1) "Now I want you to seat yourself comfortably: a hand on each arm of the chair and look straight ahead. I am about to give you some instructions that will help you to relax and gradually to enter a state of hypnosis. Just relax and make yourself comfortable. Now turn your eyes upward and look at the target. Keep your head fairly level but allow yourself to look up at the target without undue strain. (If wearing glasses: and so that you see it through your glasses.) I want you to look steadily at the target and while keeping your eyes upon it to listen to what I say. Your ability to be hypnotized depends partly on your willingness to cooperate and partly on your ability to concentrate upon the target and upon my words. You have already shown yourself to be cooperative by coming here, and with your further cooperation I can help you to become hypnotized. You can be hypnotized only if you are willing. I assume that you are willing and that you are doing your best to cooperate by concentrating on the target and listening to my words, letting happen whatever you feel is going to take place. Just let it happen. If you pay close attention to what I tell you, and think of the things I tell you to think about, you can easily experience what it is like to be hypnotized. There is nothing fearful or mysterious about hypnosis. It is a perfectly normal consequence of certain psychological principles. It is merely a state of strong interest in some particular thing. In a sense you are hypnotized whenever you see a good show and forget you are part of the audience, but instead feel you are part of the story. Many people report that becoming hypnotized feels at first like falling asleep, but with the difference that somehow or other they keep hearing my voice as a sort of background to whatever other experience they may have. In some ways hypnosis is like sleepwalking; however, hypnosis is also an individual experience and is not just alike for everyone. In a sense the hypnotized person is like a sleepwalker, for he can carry out various and complex activities while remaining hypnotized. All I ask of you is that you keep up your attention and interest and continue to cooperate as you have been cooperating. Nothing will be done that will cause you any embarrassment. Most people find this a very interesting experience." (Time: 2'30")

If eyes close, go to Instruction 2' (2') and continue through 2' (7')

(2) "Just relax. Don't be tense. Keep your eyes on the target. Look at it as steadily as you can. Should your eyes wander away from it, that will be all right . . . just bring your eyes back to it. After a while you may find that the target gets blurry, or perhaps moves about, or changes color. That is all right. Should you get sleepy, that will be fine, too. Whatever happens, let it happen and keep staring at the target for a while. There will come a time, however, when your eyes will be so tired, will feel so heavy, that you will be unable to keep them open any longer and they will close, perhaps quite involuntarily. When this happens, just let it take place." (Time: 45")

If eyes close, go on 2' (3') and continue through 2' (7')

(3) "Relax completely. Relax every muscle of your body. Relax every muscle of your body. Relax the muscles of your legs. . . Relax the muscles of your feet. . . Relax the muscles of your arms. . . Relax the muscles of your hands. . . of your fingers . . Relax the muscles of your neck, of your chest. . . Relax all the muscles of your body. . . Let yourself be limp, limp, limp. Relax more and more, more and more. Relax completely. Relax completely. Relax completely." (Time: 30")

If eyes close, go to 2' (4') and continue through 2' (7')

(4) "As you relax more and more, a feeling of heaviness comes over your body. A feeling of heaviness is coming into your legs and your arms. . . into your feet and your hands. . . into your whole body. Your legs feel heavy and limp, heavy and limp. . . Your arms are heavy, heavy. . . Your whole body feels heavy, heavier and heavier. Like lead. Your eyelids feel especially heavy. Heavy and tired. You are beginning to feel drowsy, drowsy, and sleepy. Your breathing is becoming slow and regular, slow and regular. You are getting drowsy and sleepy, more and more drowsy and sleepy while your eyelids become heavier and heavier, more and more tired and heavy." (Time: 50")

If eyes close, go to 2' (5') and continue through 2' (7')

(5) "Your eyes are tired from staring. The heaviness in your eyelids is increasing. Soon you will not be able to keep your eyes open. Soon your eyes will close of themselves. Your eyelids will be too heavy to keep open. Your eyes are tired from staring. Your eyes are becoming wet from straining. You are becoming increasingly drowsy and sleepy. The strain in your eyes is getting greater, greater and greater. It would be so nice to close your eyes, to relax completely, and Just listen sleepily to my voice talking to you. You would like to close your eyes and relax completely, relax completely. You will soon reach your limit. The strain will be so great, your eyes will close of themselves, close of themselves." (Time: 60")

If eyes close, go to 2' (6') and continue through 2' (7')

(6) "Your eyelids are getting heavy, very heavy. You are relaxed, very relaxed. There is a pleasant feeling of warmth and heaviness all through your body. You are tired and drowsy, Tired and sleepy. Sleepy. Sleepy. Sleepy. Listen only to my voice. Pay attention to nothing else but my voice. Your eyes are getting blurred. You are having difficulty seeing. Your eyes are strained. The strain is getting greater and greater, greater and greater." (Time: 30")

If eyes close, go to 2' (7')

"Your lids are heavy. Heavy as lead. Getting heavier and heavier, heavier and heavier. They are pushing down, down, down. Your eyelids seem weighted, weighted with lead, heavy as lead. . . Your eyes are blinking, blinking, blinking. . . closing. . . closing. . ." (Time: 15")

If eyes have not yet closed:

"Soon your eyes would close by themselves, but there is no need to strain them more. You have concentrated well upon the target, and have become relaxed and drowsy. Now we have come to the time when you may just let your eyes close. (If no response: That's it, now close them)" (Time: 15")

(7) "You are now comfortably relaxed, but you are going to relax even more, much more. Your eyes are now closed. You will keep your eyes closed until I tell you otherwise, or I tell you to awaken. . . You feel drowsy and sleepy. Just keep listening to my voice. Pay close attention to it. Keep your thoughts on what I am saying. . . just listen. You are going to get much more drowsy and sleepy. Soon you will be deep asleep but you will continue to hear me. You will not awaken until I tell you to do so. I shall now begin to count. At each count you will feel yourself going down, down, into a deep, comfortable, a deep restful sleep. A sleep in which you will be able to do all sorts of things I ask you to do. One. . . you are going to go deeply asleep. . . Two. . . down, down into a deep, sound sleep. . . Three. . . four. . . more and more, more and more asleep. . . Five. . . six. . . seven. . . you are sinking, sinking into a deep, deep sleep. Nothing will disturb you. Pay attention only to my voice and only to such things as I may call to your attention. I would like you to keep on paying attention to my voice and the things I tell you. . . Eight. . . nine. . . ten . . . eleven. . . twelve. . . deeper and deeper, always deeper asleep. . . thirteen. . . fourteen. . . fifteen. . . although deep asleep you can clearly hear me. You will always hear me no matter how deeply asleep you may feel yourself to be. . . Sixteen. . . seventeen. . . eighteen. . . deep asleep, fast asleep. Nothing will disturb you. You are going to experience many things that I will tell you to experience. . . Nineteen, twenty. Deep asleep. You will not awaken until I tell you to do so. You will wish to sleep and will have the experiences I shall presently describe." (Time: 2')

Record score. Score (+) if eyes close prior to the last paragraph of (6) above. . . that is, before specific request to close them. Go to Instruction 3. Hand Lowering.

## 2'. EYE CLOSURE

### For those who close their eyes early

As soon as eyes close, terminate sentence appropriately, then say:

"You are comfortably relaxed, but you are going to relax much more, much more. Your eyes are now closed. Keep your eyes closed until I tell you to Open them or to wake up."

Then pick up at appropriate place and continue with the following suggestions, all of which assume that the eyes are already closed. If eyes should reopen, instruct subject to close them.

(2') "Just relax. Don't be tense. Pay close attention to my voice. Try to pay attention to it as much as you can. Should your attention wander away from it, that will be alright. . . just bring your attention back to it. After a while you may find that my voice seems to become faint or to recede from you or again changes in quality. That is all right. Should you get sleepier, that will be fine, too. Whatever happens, let it happen and just keep listening to my voice while you become more and more relaxed. More and more relaxed. Just listen and relax. Whatever you feel is happening, just let it happen."

(3') "Relax completely. Relax every muscle of your body. Relax the muscles of your legs. . . Relax the muscles of your feet. . . Relax the muscles of your hands...of your fingers. . . Relax the muscles of your neck, of your chest. . . Relax all the muscles of your body. . . Let yourself be limp, limp, limp, limp. Relax more and more, more and more. Relax completely. Relax completely. Relax completely."

(4') "As you relax more and more, a feeling of heaviness comes over your body. A feeling of heaviness is coming into your legs and your arms. . . into your feet and your hands. . . into your whole body. Your legs feel heavy and limp, heavy and limp. . . Your arms are heavy, heavy. . . Your whole body feels heavy, heavier and heavier. Like lead. You are beginning to feel drowsy, drowsy and sleepy, more and more drowsy and sleepy while your entire body becomes more and more relaxed, more and more relaxed."

(5') "You are relaxed, quite relaxed. But you can relax even more if you allow yourself to do so. You will soon attain a state of deep, complete relaxation. You are becoming increasingly drowsy and sleepy. There is a pleasant feeling of warmth and heaviness throughout your body. You feel so relaxed, so sleepy. You are losing interest in everything else but my voice, to which you listen sleepily. Soon there will be nothing else to attend to but my voice. All the while you keep becoming more and more deeply relaxed."

(6') "You are relaxed, very relaxed. There is a pleasant feeling of warmth and heaviness, of lethargy, all through your body. You are tired and drowsy. Tired and sleepy. Sleepy."

Sleepy. You want only to listen to my voice. Pay attention to nothing else but my voice. You have no cares, no worries now. You are pleasantly, deeply relaxed, getting more deeply relaxed all the time. Everything else but my voice is becoming remote, quite remote. Nothing else but my voice seems important, nothing else is important. Nothing else but my voice and what I have to say to you now seems of interest. And even my voice may come to you as in a dream as you relax more and more, as you sink deeper into this lethargy, this deep state of relaxation. Relax, relax. . . deeply relaxed. Deeper and deeper all the time."

(7') "You feel drowsy and sleepy. Just keep listening to my voice. Pay close attention to it. Keep your thoughts on what I am saying. . . just listen. You are going to get much more drowsy and sleepy. Soon you will be deep asleep but you will continue to hear me. You will not awaken until I tell you to do so. I shall now begin to count. At each count you will feel yourself going down, down, down, into a deep, comfortable, a deep restful sleep. A sleep in which you will be able to do all sorts of things I ask you to do. One. . . You are going to go deeply asleep. . . Two. . . down, down into a deep, sound sleep. . . Three. . . four. . . more and more, more and more asleep. . . Five. . . six. . . seven. . . you are sinking, sinking into a deep, deep sleep. Nothing will disturb you. Pay attention only to my voice and only to such things as I may call to your attention: I would like you to keep on paying attention to my voice and the things I tell you . . . eight. . . nine. . . ten. . . eleven. . . twelve. . . deeper and deeper, always deeper asleep. . . thirteen. . . fourteen. . . fifteen. . . although deep asleep you can clearly hear me. You will always hear me no matter how deeply asleep you may feel yourself to be. . . sixteen. . . seventeen. . . eighteen . . . deep asleep, fast asleep. Nothing will disturb you. You are going to experience many things that I will tell you to experience. . . nineteen. . . twenty. Deep asleep! You will not awaken until I tell you to do so. You will wish to sleep and will have the experiences I shall presently describe."

Record score. Score (+) for all those who closed their eyes early enough to use this section. Go to Instruction 3. Hand Lowering.

### 3. HAND LOWERING (LEFT HAND) (Time: 1'30")

#### Introduction

"Now that you are very relaxed and sleepy, listening without effort to my voice, I am going to help you to learn more about how your thoughts affect your actions in this state. Not all people experience just the same things in this state. You will find the experiences I describe to you in this state interesting. Pay close attention to what I tell you and watch what happens. Just let happen whatever you find is happening, even if it is not what you expect."

### **Instruction Proper**

"Please extend your left arm straight out, with the palm of your hand down. That's it. I want you now to pay close attention to this hand, the feelings in it, and what is happening to it. As you pay attention to it you are more aware of it than you have been. . . you notice whether it is warm or cool, whether there is a little tingling in it, whether there is a tendency for the fingers to twitch ever so slightly. . . That's right, I want you to pay close attention to this hand because something very interesting is about to happen to it. It is beginning to get heavy. . . heavier and heavier. . . as though a weight were pulling the hand and the arm down. . . you can picture a weight pulling on it . . . . . forcing it down. . . a little bit down. . . more and more down. . . down. . . and as I count it gets heavier and heavier and goes down more and more. . . one, down. . . two, down . . three, down. . . four, down. . . more and more down. . . five, down. . . six, down. . . seven. . . eight. . . heavier and heavier, down more and more . . . nine. . . down. . . ten. . . heavier and heavier. . . down more and more "

Unless all the way down, allow ten seconds; note extent of movement, then continue:

**(If not all the way down:)** "That's fine. . . just let your hand now go the rest of the way down to its original position on the arm of the chair, and relax. You must have noticed how heavy and tired the arm and hand felt: much more so than it ordinarily would if you were to hold it out that way for a little while; you probably noticed how something seemed to be pulling it down. Now just relax. . . your hand and arm are now quite comfortable again. There. . . just relax."

**(If all the way down:)** "That's fine. . . just let your hand rest there on the arm of the chair and relax. Your hand and arm are now quite comfortable again and all the heaviness has left your arm. There. . . just relax."

Record score (+) if hand has lowered at least six inches by end of ten-second wait. Go to Instruction 4. Finger Lock.

### **4. FINGER LOCK (Time: 1 minute)**

"Now let us try something else. I want you to hold both your arms straight out in front of yourself so that your fingers interlock and palms are pressed up against each other. That's it. Press your hands until tightly interlocked together, more and more tightly interlocked together. . . Tighten your fingers so that your hands are like the jaws of a vice with the screw turned all the way in. Your hands are now so tightly interlocked together that you wonder very much if you could take your fingers and hands apart. . . Your fingers are interlocked, tightly interlocked. . . they are so tightly interlocked that you will have difficulty pulling them apart if you should try. Go ahead and try. . ." (Allow 10")

**(If taken apart:)** "That's all right. You noticed how hard it was to get started. Now return your hands to their resting positions and relax as normal feeling returns to your hands. . just relax."

**(If not taken apart:)** "Stop trying and relax. . . Your hands are no longer tightly clasped together. . . You can take them apart. . . Take them apart, return them to the arms of the chair and relax. . . just relax. Normal feeling is now returned to your hands. Relax."

Record score. Score (+) if fingers are incompletely separated at end of ten seconds. Go to Instruction 5. Arm Immobilization.

## **5. ARM IMMOBILIZATION (RIGHT ARM) (TIME: 1'20")**

"You are very relaxed. The general heaviness you have felt from time to time you now feel all over your body. Now I want you to pay close attention to your right arm and hand. . . Your right arm and hand. . . Your right arm and hand share in the feeling of heaviness. . . note how heavy your right hand feels. . . and note how as you think about this heaviness in your hand the heaviness seems to grow even more. . . Now your arm is getting heavy. . . very heavy. Now your hand is getting heavy. . . so heavy. . . like lead. . perhaps a little later you would like to see how heavy your hand is. . . it seems much too heavy to lift. . . your arm and hand are still getting heavier. . . so heavy that you are sure you won't be able to lift them . . . your hand and your arm are now so heavy that you couldn't lift them up off the arm of the chair. . . Why don't you see how heavy they are. . . Just try to lift your hand up, just try. Just try to lift your hand up, just try." (Allow 10")

**(If hand lifts:)** "That's fine. You notice how you had to lift it against some resistance because of the relaxed state you are in. Now place your hand back on the arm of the chair and relax. Your hand and arm now feel normal again. They are no longer heavy. Just relax. . . relax completely."

**(If hand does not lift:)** "That's fine. Stop trying and relax. Relax your arm and your hand. They are no long heavy. Normal feeling is returning to you hand. Normal, comfortable feeling is returning to your arm. Just relax. You are feeling comfortable and relaxed."

Record score. Score (+) if arm rises less than one inch in the ten-second period. Go to Instruction 6. Arm Rigidity.



## 6. ARM RIGIDITY (LEFT) (Time: 1 minute)

"Please extend your left arm straight out, and make a fist. . . . Arm straight out, a tight fist. I want you to pay attention to this arm and imagine that it is becoming stiff. . stiffer and stiffer. . . very stiff. . . and now you notice that something is happening to your arm. you notice a feeling of stiffness coming into it. . . It is becoming stiff. . . more and more stiff. . . rigid. . like a bar of iron. . . and you know how difficult. . . how impossible it is to bend a bar of iron like your arm. Your arm is becoming very rigid. . . more and more rigid . . . your arm now feels like an iron bar. . . Your arm is so rigid that it would be difficult to bend it. . . Now I am going to try and bend your arm to see how rigid it is. . . (gently grasp subjects wrist and attempt to bend arm) . . . see how much your arm is like a bar of iron. . . I want you to test how stiff and rigid it is. . . try to bend it yourself. . . try." (Allow 10")

(If arm bends:) "That's good. I want you to experience many things. You felt the creeping stiffness. . . that you had to exert a good deal of effort to bend your arm. Just place your arm back in resting position It is not stiff any more. As your arm relaxes, let your whole body relax."

(If arm does not bend:) "Now relax. . . stop trying to bend your arm. . . It is not stiff any longer. . . Let it relax back to the arm of the chair. . . Just relax and experience the normal feelings return to your arm."

Record score. Score (+) if there is less than two inches of arm bending in ten seconds. Go to Instruction 7. Moving Hands.

## 7. MOVING HANDS (TOGETHER) (Time: 1 minute)

"Please hold both hands out in front of you, palms facing inward, hands about a foot apart Here, I'll help you."

(Take hold of hands and position them about a foot apart.)

"Now I want you to imagine a force attracting your hands toward each other, pulling them together. As you think of this force pulling your hands together, they will move together, slowly at first, but they will move closer together, closer and closer together as though a force were acting on them. . . a force is acting on your hands. . . pulling them closer and closer together. . . your hands are moving. . . closer and closer . . . moving together. . . closer. . .closer . . ."

Allow ten seconds without further suggestion. and note extent of motion.

(If hands have not touched:) "That's fine You see again how thinking about a movement causes a tendency to make it. Let me show you how little more your hands would have had to move to come together."

(Take subject's hands and move them together fairly rapidly.)

(When hands have touched:) "That's fine. Now place your hands back on the arm of the chair and relax."

Record Score (+) if hands not over six inches apart.  
Continue to Instruction 8. Verbal Inhibition.

#### 8. 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. . . In a few minutes I am going to ask you to say your name . . . but you will find it quite difficult. . . You are so deeply relaxed. . . you will find it very difficult to say your name. . . Why don't you try to say your name now. . . just try to say it." (Allow 10")

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

(If name not spoken:) "That's all right. . . stop trying and relax. . . You can say your name easily now and it won't disturb your peaceful relaxed feelings at all. . . Go ahead and say it. . . That's right. Now relax."

Record score. Score (+) if name unspoken in ten seconds.  
Go to Instruction 9. Hallucination.

#### 9. HALLUCINATION (FLY) (Time: 55 seconds)

"You have been listening to my voice very carefully, paying close attention. . . listening so carefully that you may not have noticed the fly which has been buzzing about the room . . . But now that I call your attention to it you become increasingly aware of this fly which is going round and round about your head. . . nearer and nearer to you. . . buzzing annoyingly. . . hear the buzz getting louder as it keeps darting at you. . . You don't care much for this fly. . . You would like to shoo it away. . . the buzz keeps coming nearer to you as the fly continues to fly around your head . . . you are getting annoyed at the fly and want to get rid of it . . . It annoys you. Go ahead and get rid of it . . . shoo it away . . ."  
(Allow 10")

**(After movement to shoo the fly or 10"):** "There, its going away. . . it's gone. . . the fly is gone and you are no longer annoyed. . . no more fly. Just relax. . . relax completely."

Record score. Score (+) for any grimacing, any movement, any acknowledgment of effect. Go to Instruction 10. Eve Catalepsy.

#### **10. EYE CATALEPSY (Time: 35 seconds)**

"You have had your eyes closed for a long time while you have remained relaxed. They are by now tightly closed, tightly shut. . . tightly closed . . . If you tried to open them now, they would feel as if your eyelids were glued together. . . tightly glued shut. . . You would soon like to try to open your eyes in spite of their feeling so heavy and so completely. . . so tightly closed. However you will find it very difficult to open your eyes. . .Go ahead and try. . . try to open your eyes." (Allow 10")

**(If eyes open:)** "All right, close your eyes again. You had a chance to feel how tightly shut they were. Now relax. . . just keep your eyes closed and relax."

**(If eyes remain closed:)** "Now relax. . . stop trying. Your eyes are normal again, but just keep them closed and relax."

Record score. Score (+) if eyes remain closed at end of ten seconds. Go to Instruction 11. Post-Hypnotic Suggestion.

#### **11. POST-HYPNOTIC SUGGESTION (STAND UP); AMNESIA (Time - 2' 30")**

"Stay completely relaxed, but listen carefully to what I tell you next. In a little while I shall begin counting backwards from twenty to one. You will awaken gradually, but you will still be in your present state for most of the count. When I reach "five" you will open your eyes, but you will not be fully awake. When I get to "one" you will be entirely roused up, in your normal state of wakefulness. You will have been so relaxed, however, that you will have trouble recalling the things I have said to you and the things you did or experienced. It will take so much effort to recall that you will prefer not to try. It will be much easier just to forget everything until I tell you that you can remember. You will forget all that has happened until I say to you: "Now you can remember everything" You will not remember anything until then. After you wake up you will feel refreshed, and not have any pain or stiffness or other unpleasant after-effects. I shall now count backwards from twenty, and at "five", not sooner, you will open your eyes but not be fully

aroused until I reach "one". At "one" you will be fully awake. . . After a while, I shall stand up. When I do, you will stand up, too, and stretch your arms as you sometimes do when you wake up. You will do this, but you will forget that I told you to do so, just as you will forget the other things, until I tell you, "Now you can remember everything." Ready, now: 20. . . 19. . . 18. . . 17. . . 16. . . 15. . . 14. . . 13. . . 12. . . 11. . . 10 (half-way) 9. . . 8. . . 7. . . 6. . . 5. . . 4. . . 3. . . 2. . . 1. "

(If subject has eyes open:) "How do you feel? Do you feel wide awake? (If drowsy:) The feeling will go away soon. Now you feel wide awake."

Hypnotist presently collects his papers and rises from his chair, continuing to face toward the subject. (Allow 10 seconds)

(If subject remains seated:) "Just stand up now, and restore your circulation. That's fine. Now please be seated over here. I want to talk to you a little about your experiences."

(If subject has stood up and stretched:) "You probably feel better now. Please take a seat over here. I want to talk to you a little about your experiences."

Record score for post-hypnotic response. Score (+) for post-hypnotic response if any partial movement is made in response to the hypnotist's rising from his chair.

## APPENDIX D

### Modified Stanford Hypnotic Susceptibility Scale Research Protocol for HIRP

#### Non-Authoritarian Induction

##### 1. POSTURAL SWAY (Time: 2 minutes)

"If you don't have any more questions and would like to begin, we could start by seeing what it feels like to respond to suggestions when you are not hypnotized. When you're ready you can stand up in a comfortable position.

"Is it okay for me to stand behind you?"

The experimenter should move into a position about a foot away directly behind the subject.

"Go ahead and stand in a comfortable position. Some people find that they experience affects better when they stand with their heels and toes together, with their hands by their sides and their head level."

"Whenever you begin to feel comfortable feel free to close your eyes and relax, just relax, and then you can begin to see what it will be like to respond to a suggestion while you're not hypnotized."

The four-part suggestion list below is given in a relatively uniform tone and with moderate volume, reading verbatim from the instructions. Note is taken of the magnitude of the maximum response and when (i.e., in which of the four sections) it first occurred. If the subject falls outright, the suggestions end then and there: go directly to the final section (5').

(1) "In a moment we'll see what happens as you begin to imagine yourself swaying backward. As you know, thinking of a movement and making a movement are closely related. Soon after you think of swaying you may find yourself experiencing a tendency to make that movement. You might find yourself actually swaying backward, more and more backward, until you sway so far that you would begin to fall. If you feel comfortable when this happens you can allow yourself to fall. I will be right behind you and I promise you I will not let you fall very far. If you'd like I can show you just how close I am and how I will catch you.

(If Yes:)

"Whenever you're ready you can begin to fall backward and I will catch you."

(If No:) Continue with the following

(2) "All right . . . If you allow yourself to relax as you listen to my voice and think of swaying backward, of falling backward. You may soon start feeling as if you are swaying backward. If you allow yourself to relax and imagine that you are swaying backward, more and more backward "

(3) "If you allow yourself to relax and think of yourself swaying backward, you may actually start to feel yourself beginning to sway backward. Swaying backward. More and more backward. Observe yourself. . .how you feel. . .notice if you are swaying more and more backward. Swaying more and more backward.

(4) "Notice what you experience as I say swaying backward, falling backward, swaying backward, falling backward, falling backward, falling backward, backward . . . You may feel yourself falling, falling, falling . . . You can fall now if you like."

(Score here.)

"It's alright to tell me what you experienced. But only if you would like to."

(5) (If no fall occurs and appropriate to subjects comments:) "That's fine. Now you see how thinking about a movement can produce a tendency to make the movement."

(5') (After the fall and appropriate to the subjects comments:) "Good; you see what it feels like to allow yourself to notice how your body responds as you think about making a movement. Now you see how thinking about a movement produces a tendency to make the movement."

Seat the subject in a chair, and record the score. Score (+)  
if fall occurs. Go to Instruction 2. Eye Closure.

## 2. EYE CLOSURE (Time: 15 minutes)

A subject who wears glasses should keep them on; contact lenses should be removed. The subject is comfortably seated in an upright upholstered armchair, with the back high enough to support the head. The hypnotist is seated at a 45 degree angle to the subject.

**"Would you still like to proceed with the induction procedure?"**

**(1) "When you have seated yourself comfortably choose something to focus on near the ceiling of the room. It can be anything. A corner, a spot of dirt, part of a crack in the wall. . .anything at all. Let me know when you've chosen something.**

**When you're ready go ahead and turn your eyes upward and look at the target you've chosen. It might work better for you if you keep your head level, but do as you wish at any time.**

**(If wearing glasses: "you'll probably want to be able to see it through your glasses so that you can comfortably focus on it.")**

**"As you look steadily and comfortably at the target you can also listen to what I say. As you relax you may find your attention shifting back and forth from the target to my voice. That's okay. Just focus as best you can while you are relaxing. Becoming hypnotized depends on both your choice to cooperate and on your concentration on the target and my words. I can see that you are interested in seeing what this experience will be like by your decision to come here today and let yourself relax. Together we can work to help you become hypnotized. You can be hypnotized only if you are willing. You can choose to be hypnotized by doing your best to concentrate on the target and listen to my words, letting happen whatever you feel is going to take place. Just choosing to let it happen. If you pay close attention to what I tell you, and think of the things we talk about, you can easily experience what it is like to be hypnotized. There doesn't need to be anything fearful or mysterious about hypnosis. It is a perfectly normal consequence of certain psychological principles. It is merely a state of strong interest in some particular thing. In a sense you are hypnotized whenever you see a good show and forget you are part of the audience, but instead feel you are part of the story. Many people report that becoming hypnotized feels at first like falling asleep, but with the difference that somehow or other they keep hearing my voice as a sort of background to whatever other experience they may have. Hypnosis is also an individual experience and is not just alike for everyone. In a sense the hypnotized person is like a sleepwalker. You can carry out various and complex activities while remaining hypnotized. You don't have to do anything that you don't want to do. You can observe yourself with interest as you experience your body responding to the things we talk about you experiencing. Nothing will be done that will cause you any embarrassment. Most people find this a very interesting experience."**  
**(Time: 2'30")**

**If eyes close, go to Instruction 2' (2') and continue through 2' (7')**

**(2) "Notice how good it feels to relax. You may feel the tension slowly moving out of your body. Your eyes are focused on the target. I can tell you're looking at it as steadily as you can. Should your eyes wander away from it, that will be all right . . . just bring your eyes back to it when you can. While you're looking at the target, notice what it looks like. After a while you may find that it gets blurry, or perhaps moves about, or changes**

color. You may begin to get sleepy too. Whatever happens, let it happen, notice it while you are gazing at the target. It is possible that there will come a time when your eyes will be so tired, will feel so heavy, that you will really want to let them close. . . they may close, perhaps quite involuntarily. If you feel this happening you can just let it take place." (Time: 45")

If eyes close, go on 2' (3') and continue through 2' (7')

(3) "You seem to be allowing yourself to become very relaxed now. Relaxing completely. You might begin to notice each particular muscle of your body. You are probably very sensitive and can observe the relaxation in your muscles. I wonder where you will notice the feelings of relaxation first. In which muscles. It might be in your hands. Your hands may begin to feel very light and free of tension. . . Your fingers releasing their tension. . . and your legs. . . You may have noticed the muscles of your legs relaxing. . . of your feet. . . Your feet may be feeling very relaxed. Whichever muscles you notice feeling more and more relaxed. Notice how aware you are of those feelings. See what it feels like as you become even more relaxed. More and more relaxed. More and more. (Time: 30")

If eyes close, go to 2' (4') and continue through 2' (7')

(4) "As you relax more and more, you may notice a feeling of heaviness come over your body. Or it might be a feeling of lightness. Take a moment and see if a feeling of heaviness or lightness starts to come over your body. . . I'd like to find out what you are experiencing. If it is a feeling of heaviness, please raise your right index finger just a little bit. . . (if necessary: If it is a feeling of lightness you can raise your left index finger just a bit to let me know.) Good. . . A feeling of heaviness (lightness) seems to be coming into your body. You may feel into moving into your legs and your arms. . . into your feet and your hands. . . into your whole body. Your legs may become heavy and limp (light and free), heavy and limp (light and free). . . Your arms may feel heavy, heavy (light, light). . . Your whole body may feel heavy, heavier and heavier (light, lighter and lighter). Like lead (a feather).

(If Heaviness is indicated:) Your eyelids might begin to feel especially heavy. Heavy and tired. You may notice yourself beginning to feel drowsy, drowsy, and sleepy. You may notice your breathing is becoming slow and regular, slow and regular. Notice how drowsy and sleepy you are feeling. . . Allow yourself to experience your drowsiness and sleepiness and notice how your eyelids feel. Heavier and heavier. . . more and more tired and heavy." (Time: 50")

(If Lightness is indicated:) Your head may also be feeling very light. Notice how your head feels. Your eyes are likely beginning to feel very light too. You might notice your eyelids feeling like they want to close to protect your eyes, and to allow yourself to completely experience this sensation of lightness. I wonder if your eyelids might seem heavy compared to the rest of your body. Heavy. . . notice how your eyelids struggle to



stay open. You may have noticed some sense of wanting to close them, almost as if you feel drowsy. Drowsy and sleepy. You may feel that you want to close your eyelids to further experience this feeling of lightness and airiness and sleepiness. Notice your eyelids. . .feeling very heavy. . .blinking. . .feeling as if they are trying to close.

If eyes close, go to 2' (5') and continue through 2' (7')

(5) "As you have been staring at the target I wonder if you have noticed yourself becoming tired from staring. The heaviness in your eyelids is probably increasing. Soon you may not want to keep your eyes open any longer. If it is a strain you may decide you want your eyes to close. Your eyelids may feel more and more heavy as you focus on the target. If you feel them getting heavy and find yourself wanting to further experience the sleepiness and heaviness (lightness) in your body, you may find yourself allowing them to close. Notice how your eyes feel. They may feel wet from staring, or a little dry from the strain of keeping them open. Notice whether you are becoming increasingly drowsy and sleepy. Pay attention to the strain in your eyes. Notice if it is getting greater, greater and greater. If it would feel better you can just close your eyes, allow yourself to relax completely, and just listen sleepily to my voice talking to you. Whenever you want you can close your eyes and relax completely, relax completely. When you feel like it and you notice the strain becoming great you can allow your eyes to just close. You can allow them to close to feel completely relaxed. (Time: 60")

If eyes close, go to 2' (6') and continue through 2' (7')

(6) "As you continue to focus on the target, let yourself observe the sensations you are experiencing. How your eyelids feel. Notice if they are feeling heavy, very heavy. You might also notice the pleasant feeling of warmth and heaviness (lightness) all through your body. Do you notice yourself feeling tired and drowsy, tired and sleepy. Sleepy. Sleepy. Sleepy. Try and listen to my voice. Allow your attention to focus on my voice. Your eyes may be getting blurred. You may begin to have difficulty seeing. Your eyes might feel quite strained. Notice the strain. Feel if it is getting greater, greater and greater."  
(Time: 30")

If eyes close, go to 2' (7') and continue through 2' (7')

(If eyes have not yet closed:) Soon your eyes might close by themselves, but you don't have to strain them more. You have concentrated well upon the target, and might be feeling quite relaxed and drowsy. Now we have come to the time when you may just let your eyes close so that you can relax completely.

(If no response:) That's it, you can get comfortable now by allowing your eyes to go ahead and close." (Time: 15")

(7) "You seem to be very comfortably relaxed, but you can relax even more if you like, much more. Your eyes are now closed. If you find yourself feeling even more drowsy and sleepy that's okay. You can let yourself feel as drowsy and sleepy as you are comfortable. Just let yourself notice everything you are feeling. You can feel deep asleep if you like. Notice how rested you feel. You might be surprised to find that you can feel so deeply asleep yet still continue to hear my voice. You can remain in this state and not open your eyes until you have experienced everything you want to experience and we talk about waking up. I am going to begin to count as you pay attention to how you feel. At each count focus on how you are feeling, notice if you feel yourself going down, down, into a deep, comfortable, a deep restful sleep. A sleep in which you can do all sorts of things that you think about. One. . .notice how very relaxed you feel. . . Two. . . down, down into a deep, relaxed sleep. . . Three. . . four. . . more and more, more and more asleep. . . Five. . . six. . .seven. . . you may notice a sinking feeling, as if you are sinking, sinking into a deep, deep sleep. You can choose to ignore all other things. You can focus on my voice if it helps you to notice the things that you are feeling, as you allow your attention to be drawn to observing the sensations in your body. I am only a guide, use me to help yourself focus on the feelings you are experiencing. . . Eight. . . nine. . . ten . . . eleven. . . twelve. . . deeper and deeper, always deeper asleep. . .thirteen. . . fourteen. . . fifteen. . . although you may feel deep asleep you can still hear me quite clearly if you try. Notice how you can hear me no matter how deeply asleep you may feel yourself to be. . . Sixteen. . . seventeen. . . eighteen. . . deep asleep, fast asleep. Nothing will disturb you. You are going to experience many things that you and I want you to experience. . . Nineteen, twenty. Deep asleep. You don't have to awaken until you are fully ready to and we talk about waking up. You may allow yourself to sleep and if you like, have all the experiences I will soon talk about." (Time: 2')

Record score. Score (+) if eyes close prior to the last paragraph of (6) above. . . that is, before specific request to close them. Go to Instruction 3. Hand Lowering.

## 2'. EYE CLOSURE

### For those who close their eyes early

As soon as eyes close, terminate sentence appropriately, then say:

"Notice how your body and mind are feeling. You may be feeling very comfortably relaxed, but you can still relax even more, much more. I notice your eyes are now closed. If you keep your eyes closed until we talk about opening them and waking up, you may be able to fully experience the state of body and mind you are entering."

Then pick up at appropriate place and continue with the following suggestions, all of which assume that the eyes are already closed. If eyes

should reopen, tell subject that they can close them again as soon as they feel comfortable doing so.

(2') "Try and focus on what you are experiencing. Sensations in your body, sensations in the room around you. Notice how much clearer your senses are becoming. Can you feel the increasing relaxation in your body? Notice all the things you are feeling. Do you feel any tenseness? If you do you may notice it change as you continue to relax. You may find that you can focus on these experiences and also pay close attention to my voice. Notice all of the things you find yourself experiencing. After a while you may find that my voice seems to become faint or to recede from you or again changes in quality. You may notice yourself feeling sleepier. Whatever happens you can just let it happen and just keep listening to my voice while you become more and more relaxed. More and more relaxed. Just listening and relaxing. Whatever you feel happening, you can just let it happen."

(3') "You may be allowing yourself to become very relaxed now. Relaxing completely. You might begin to notice each particular muscle of your body. You may be very sensitive and can observe the relaxation in your muscles. I wonder where you will notice the feelings of relaxation first. In which muscles? It might be in your hands. Your hands may begin to feel very light and free of tension. . . Your fingers releasing their tension. . . Or your legs. . . You may noticed the muscles of your legs relaxing. . . and your feet. . . Your feet may be feeling very relaxed. Notice any muscles you feel are becoming more and more relaxed. Notice how aware you are of those feelings. See what it feels like as you become even more relaxed. More and more relaxed. More and more.

(4') "As you relax more and more, you may notice a feeling of heaviness come over your body. Or it might be a feeling of lightness. Take a moment and see if a feeling of heaviness or lightness starts to come over your body. . .I'd like to find out what you are experiencing. If it is a feeling of heaviness, please raise your right index finger just a little bit. . .(if necessary: If it is a feeling of lightness you can raise your left index finger just a bit to let me know.) Good. . .A feeling of heaviness (lightness) seems to be coming into your body. You may feel it moving into your legs and your arms. . . into your feet and your hands. . . into your whole body. Your legs may become heavy and limp (light and free), heavy and limp (light and free). . . Your arms may feel heavy, heavy (light, light). . . Your whole body may feel heavy, heavier and heavier (light, lighter and lighter). Like lead (a feather). You might notice that you are beginning to feel drowsy, drowsy and sleepy, more and more drowsy and sleepy as your entire body feels more and more heavy (light) and relaxed, more and more relaxed."

(5') "Notice how your body feels. I wonder if it feels so relaxed that you might feel yourself drifting off to sleep. You may find that by continuing to focus you can relax even more if you allow yourself to do so. You may soon notice a feeling of deep, complete relaxation. Increasingly drowsy and sleepy. If it is a pleasant feeling of warmth and heaviness (lightness) throughout your body allow yourself to enjoy it. You can let yourself feel so relaxed, so sleepy. You might be losing interest in everything else but

notice how you can still hear my voice if you choose to listen to it. You might be surprised to notice how you can still listen sleepily. Soon there may be nothing else to attend to but my voice. All the while you are paying attention to how your body and mind are feeling."

(6') "You appear to be feeling quite relaxed now. There may be a pleasant feeling of warmth and heaviness (lightness), of lethargy, all through your body. You may notice feelings of tiredness and drowsiness in your body. Tired and sleepy. Sleepy. Sleepy. You may be so lost in the experience that you only notice my voice and have no cares or worries now. You can allow yourself to feel as pleasantly, deeply relaxed as you like. More and more so all the time. Nothing else but what you want to pay attention to may seem important. My voice may even seem to come to you as in a dream as you find yourself more and more relaxed. Notice how relaxed and tension free your body has become.

(7') "As you concentrate on my voice you are likely to feel even more drowsy and sleepy. You can remain in this state and not open your eyes until you have experienced everything you want to experience. I am going to begin to count as you pay attention to how you feel. At each count focus on how you are feeling, notice if you feel yourself going down, down, into a deep, comfortable, a deep restful sleep. A sleep in which you can do all sorts of things that you think about. One. . . notice how very relaxed you feel. . . Two. . . down, down into a deep, relaxed sleep. . . Three. . . four. . . more and more, more and more asleep. . . Five. . . six. . . seven. . . you may notice a sinking feeling, as if you are sinking, sinking into a deep, deep sleep. You can choose to ignore all other things. You can focus on my voice if it helps you to notice the things that you are feeling, as you allow your attention to be drawn to observing the sensations in your body. I am only a guide, use me to help yourself focus on the feelings you are experiencing. . . Eight. . . nine. . . ten . . . eleven. . . twelve. . . deeper and deeper, always deeper asleep. . . thirteen. . . fourteen. . . fifteen. . . although you may feel deep asleep you can still hear me quite clearly if you try. Notice how you can hear me no matter how deeply asleep you may feel yourself to be. . . Sixteen. . . seventeen. . . eighteen. . . deep asleep, fast asleep. Nothing will disturb you. You are going to experience many things that you and I want you to experience. . . Nineteen, twenty. Deep asleep. You don't have to awaken until you are fully ready to and we talk about waking up. You may allow yourself to remain in this sleep like state, and if you like have all the experiences I will soon talk about."

Record score. Score (+) for all those who close their eyes early enough to use this section. Go to Instruction 3. Hand Lowering.

### 3. HAND LOWERING (LEFT HAND) (Time: 1'30")

#### Introduction

"Now that you are very attuned to how you are feeling and the things going on around you such as my voice, you can learn more about how your thoughts affect your actions in this state. Not all people experience just the same things in this state, and perhaps you will not have all the experiences I will describe to you. But you can allow yourself to have at least some of the experiences and you may find these interesting. You just experience whatever you like. Just observe as you let happen whatever you find is happening, even if it is not what you expect."

#### Instruction Proper

"Whenever you're ready choose one of your arms to extend straight out in front of you. When you've chosen you may go ahead and extend that arm. As you pay close attention to this arm, notice the feelings in it, and what is happening to it. You might find yourself more aware of it than you have been. . . notice whether it is warm or cool, whether there is a little tingling in it, whether there is a tendency for the fingers to twitch ever so slightly. . . As you pay close attention to your hand you may be surprised to notice that there are sensations there you were not aware of previously. It is possible that something interesting may happen to it. It might begin to get heavy. . . heavier and heavier. . . as though a weight were pulling the hand and the arm down. . . can you picture a weight pulling on it? . . . forcing it down. . . a little bit down. . . more and more down. . . down. . . I'm going to count to 10 as you continue to notice how your arm is feeling. Notice if it feels like it is getting heavier. Heavier and heavier and goes down more and more. . . one, . . . two, notice the sensations. . three, . . .four, down . . . more and more down. . . five, down. . .six, down. . .seven. . . eight. . . heavier and heavier, down more and more . . . nine. . . down. . . ten. . .heavier and heavier. . . down more and more "

Unless all the way down, allow ten seconds; note extent of movement, then continue:

(If not all the way down:) "That's fine. . . Let yourself be as comfortable as possible again. Just let your hand now go the rest of the way down to its original position and relax. You might have noticed how heavy and tired your arm and hand felt. Much more so than it ordinarily would if you were to hold it out that way for a little while; you probably noticed how something seemed to be pulling it down. Now just let yourself relax. . . notice the feelings in your hand and arm now as you find yourself relaxing again. Let yourself get comfortable again.

(If all the way down:) "That's fine. . . You can just let your hand rest there and relax. Go ahead and allow yourself to imagine all the heaviness leaving your hand and arm allowing them to become quite comfortable again. Let yourself relax.

Record score (+) if hand has lowered at least six inches by end of ten-second wait. Go to Instruction 4. Finger Lock.

#### 4. FINGER LOCK (Time: 1 minute)

"If you are ready to try something else, when your hands feel comfortable and light enough, you can go ahead and hold your arms out in front of you with your palms toward each other. Go ahead and put your fingers together, allowing your fingers to become interlocked. That's it. Notice how feels to have your hands interlocked together. You may notice them beginning to feel very tightly locked together. More tightly interlocked together. . . They may feel so tightly interlocked together that you wonder if you could take your fingers and hands apart. . . Your fingers may be feeling very interlocked now, tightly interlocked. . . If you like, just to see if you can, you might like to see if you could take them apart. Go ahead and try if you like." (Allow 10")

(If taken apart:) "Alright, you may have noticed how you have control even while under hypnosis. You might have noticed some difficulty or hesitation in getting started pulling them apart. If you like you can allow your hands to return to a comfortable position and let the normal feelings return to them.

(If not taken apart:) "You can stop trying whenever you want. You may have noticed how difficult it was to take them apart. Your hands don't have to be tightly clasped together any more. . . You can take them apart whenever you want and return them to a comfortable position and relax. . . allow yourself to relax."

Record score. Score (+) if fingers are incompletely separated at end of ten seconds. Go to Instruction 5. Arm immobilization.

#### 5. ARM IMMOBILIZATION (RIGHT ARM) (TIME: 1'20")

"Try and focus on how you are feeling now. You may have noticed a general heaviness from time to time which you might now feel all over your body. See what happens if you draw your attention to your limbs. Notice the feelings in your arms and your legs. As you focus on them you may notice that one of them. . .one arm or one leg feels particularly heavy. . .Try and pay close attention to the feelings of heaviness in that one limb. Notice how it feels. As you think about this limb you may notice how it continues to grow even more heavy. . .so heavy it might feel like lead or an anchor. . .perhaps a little later you would like to see how heavy this limb is. It may seem much too heavy to lift. . . but perhaps in spite of being so heavy you could lift it a little, although it may now be too heavy even for that. . .If you like you may want to see how heavy it is. . . Go ahead and try to lift it up, if you like." (Allow 10")

**(If arm or leg lifts:)** "That's fine. You may have noticed how you had to lift it against some resistance because of the relaxed state you are in. When you want, allow your arm (leg) to return to a comfortable position and relax. Allow normal feeling to return to your hand and arm (foot and leg). Just relax. . . Go ahead and let yourself relax completely."

**(If arm or leg does not lift:)** "That's fine. You can stop trying whenever you like and allow yourself to relax. Allow this limb to relax. It no longer needs to feel heavy. You can allow normal feeling to return. Notice the normal, comfortable feeling returning. Just relax. You can let yourself feel comfortable and relaxed."

Record score. Score (+) if arm rises less than one inch in the ten-second period. Go to Instruction 6. Arm Rigidity.

## **6. ARM RIGIDITY (LEFT) (Time: 1 minute)**

"As you continue to enjoy this relaxed state please choose one arm to extend straight out, and make a fist. Arm straight out, a tight fist. As you concentrate on this arm notice any feelings in it. . . any tingling or maybe stiffness. Can you imagine what it would feel like if it became very stiff. Stiffer and stiffer. . . very stiff. . . You may now notice that something is happening to your arm. You may notice a feeling of stiffness coming into it. . . Notice how it feels . . . more and more stiff. . . rigid. . . Maybe as rigid as a bar of iron. . . and you know how difficult it is to bend a bar of iron. You might be wondering if you could bend it. . . Although it feels very stiff now, you might want to go ahead and test how stiff and rigid it is. . . go ahead and try to bend it if you like." (Allow 10")

**(If arm bends:)** "That's fine. You may have felt the creeping stiffness. . . and maybe you had to exert some effort to bend your arm. Whenever you like you can allow your arm to fall back into a resting position. It doesn't have to feel stiff any more as you allow normal feelings to return to your arm. As your arm relaxes, you can let your whole body relax."

**(If arm does not bend:)** "If you like you can stop trying to bend it whenever you like. It doesn't need to remain stiff. You can allow normal feelings to return to your arm. You can let it relax back to a comfortable position. Notice the relaxing normal feelings return as you allow your whole body to relax."

Record score. Score (+) if there is less than two inches of arm bending in ten seconds. Go to Instruction 7. Moving Hands.

## 7. MOVING HANDS (TOGETHER) (Time: 1 minute)

"Whenever you are ready to try something new just hold both hands out in front of you, with your palms facing inward, hands about a foot apart."

"You may have noticed your attention shifting focus to your hands. Notice any sensations in your hands. I wonder if you have noticed any tendency for your hands to move. Can you imagine what it would feel like if some force was attracting your hands toward each other, pulling them together? As you think of this force pulling your hands together, you may find that they will begin to move together, slowly at first. Notice if there is any motion in your hands. You may notice that they seem to be moving closer together. Closer and closer together. It might feel as though a force were acting on them. . . moving them. . . closer and closer. Notice the motion in your hands as you focus on them. . .closer and closer."

Allow ten seconds without further suggestion, and note extent of motion.

(If hands have not touched:) "That's fine. You may have noticed a tendency in them to move toward each other. If you like I could show you how much they moved. . . How little more they would have had to move to come together. Just nod your head if you would like me to show you.

(Take subject's hands and move them together fairly rapidly.)

(When hands have touched:) "Allow normal feeling to return and feel yourself taking control of your hands again. When you are ready you can place your hands back to their comfortable position chair and relax."

Record score. Score (+) if hands are not over six inches apart at end of ten seconds. Go to Instruction 8. Verbal Inhibition.

## 8. VERBAL INHIBITION (NAME) (Time: 50 seconds)

"Notice how you are feeling now. . . notice how you are breathing . . . You may not have noticed your head or face before. Notice how the muscles of your face feel now. . . They may feel very relaxed now. I wonder how difficult it might be for you to talk while so deeply relaxed. Perhaps it would be as hard to talk as when you are asleep. . . I wonder if you could say your name. You may find yourself wondering if you could say your name out loud. You might try a little later if you like. . . I think you may find it quite difficult to say your name . . . If you want, go ahead and try. Go ahead and try to say your name now if you like." (Allow 10")



**(If name spoken:)** "You may have noticed that it felt more different, maybe more difficult to say it than it normally would. Whenever you like you can allow normal feelings to return to your face and mouth.

**(If name not spoken:)** "You may have noticed how difficult it was to say your name and you can stop trying whenever you like. As you relax and allow the normal feelings returning to your face and mouth you may feel as if it would be easy now to say your name. If you want to you might try again and see how easy it is, but only if you want to see how effortless it is."

Record score. Score (+) if name unspoken in ten seconds.  
Go to Instruction 9. Hallucination.

#### **9. HALLUCINATION (FLY) (Time: 55 seconds)**

"You have been very focused on the sensations and feelings you are experiencing in your body. As well as the things you notice around you, such as my voice. I wonder if you tried really hard, if you could also hear a fly in the room. You might have to really focus your attention if you are going to be able to hear the fly buzzing around you. If you concentrate you may be able to hear the fly as it buzzes by your head. Notice the sounds around you in the room. As you pay attention to the fly you may become increasingly aware of it. You may even notice it flying around your head. If you become annoyed by the buzzing of the fly you can always shoo it away. If it starts to dart at you, you can just shoo it and make it go away. The buzzing may be getting annoying. If it is you can shoo the fly away whenever you like." (Allow 10")

**(After movement to shoo the fly or 10":)** "There, you may be able to hear it going away. . Do you notice the buzzing fly disappearing. You may not be able to hear it anymore. You can let the fly go away if you like. . . Notice how you feel. You may feel relieved and no longer annoyed. . . You can allow the fly to go away. Let yourself relax again. Just relax, relax completely."

Record score. Score (+) for any grimacing, any movement, any acknowledgment of effect. Go to Instruction 10. Eye Catalepsy.

#### **10. EYE CATALEPSY (Time: 35 seconds)**

"Are you aware of how long you've had your eyes closed now? You may realize you have had them closed for a long time while you have remained relaxed. I wonder if by now they are tightly closed, tightly shut? . . If you were to try to open them now, they

might even feel as if your eyelids were glued together. . . tightly glued shut. . . Perhaps you would soon like to try to open your eyes in spite of their feeling so heavy and so completely closed. . . You may be wondering if you could open them. If you like, go ahead and try to open them." (Allow 10")

(If eyes open:) "You opened your eyes. Notice how they feel. You can close your eyes again whenever you like. You might have noticed just how tightly shut they were. Now you can let yourself relax. . . just let your eyes remain closed and relax."

(If eyes remain closed:) "Notice how your eyes feel. You can stop trying to open them anytime you like. You can let yourself just relax. . . You can allow Let those normal comfortable feelings to return to your eyes. Just let your eyes remain closed and allow yourself to relax."

Record score. Score (+) if eyes remain closed at end of ten seconds. Go to Instruction II. Post-Hypnotic Suggestion.

## II. POST-HYPNOTIC SUGGESTION (STANDING UP/STRETCHING) AMNESIA (Time: 2'30")

"If you like, continue to enjoy the relaxed feelings you are experiencing throughout your body. Notice how you can remain deeply relaxed as you pay close attention to what I am going to tell you next. In a moment I will begin counting backwards from twenty to one. You may notice some changes in how you feel as I count. You may notice a change in your body as you begin to wake up. You can let yourself do this gradually. As I count, pay attention to the awakening sensations in your body as you begin to come out of the deep state you are in. For most of the count you may find yourself still in the relaxed state you are now in. By the time I reach "five" you may be ready to open your eyes, and you can choose to do so at that time. You may not be fully aroused yet. When I get to "one" you may feel fully alert, in your normal state of wakefulness. You may feel as if you have slept because it is possible that you will have some difficulty in remembering all the things I have told you and all the things that you did or felt. In fact, you may find it to be so much of an effort to recall any of these things that you have no desire to do so. If you find it easier simply to forget everything until I tell you that you can remember you can merely forget all about them. You may wonder if you will remember anything of what has happened. You might feel very tired and if you do you can simply allow yourself to forget everything that has happened until I say to you: "You can remember everything if you like!" and you want to remember. Until then you don't have to exert your energy to remember anything. After you open your eyes, I'm sure you will feel fine. You shouldn't experience any headache or other after effects. As you are preparing to wake up I will now count backward from twenty, and at "five," you may be ready and you can open your eyes if you like, but you don't have to be fully aroused until I say "one." At "one" you may feel awake. . . After a while, I will stand up.

When I do, see if you feel like standing up too. You can allow yourself to do this if you like. You may notice a desire to stretch your arms as you sometimes do when you wake up. You may find yourself wanting to do this, as it is perfectly normal, and you can feel free to stretch all you like. But you may also forget that we talked about it, just as you may forget the other things, until I say, 'You can remember everything if you like.'"

"Ready, now: 20. . 19. . . 18. . . 17. . . 16. . . 15. . . 14. . . 13. . . 12. . . 11. . . 10 (half-way), 9. . . 8. . . 7. . . 6. . . 5. . . 4. . . 3. . . 2. . . 1."

(If subject has eyes open:) "How do you feel? Do you feel wide awake? (If drowsy:)

"You may find that the feeling will go away soon. You can let yourself feel wide awake now if you like! If you want we can talk about your experience in a few minutes."

Hypnotist shortly stands up and begins gathering papers. (Allow 10")

(If subject remains seated:) "I you want to, you can stand up and stretch a little to restore your circulation. Some people find that it helps them feel refreshed and alert. When you're finished you can have a seat and you can tell me anything you like about your experience."

(If subject has stood up and stretched:) "Do you feel better now. Many people find that stretching after hypnosis helps them feel refreshed and alert. Whenever you're ready you can have a seat and you can tell me anything you like about your experiences."

Record score for post-hypnotic response. Score (+) for post-hypnotic response if subject stands up or stretches from their seat in response to hypnotist standing up.

## APPENDIX E:

### Personal Power Functions Profile Scale

#### A. Physical Attractiveness

- \_\_\_ 1. ugly
- \_\_\_ 2. ....
- \_\_\_ 3. plain
- \_\_\_ 4. ....
- \_\_\_ 5. beautiful/very handsome

#### B. Stature

- \_\_\_ 1. 5'0"
- \_\_\_ 2. 5'5"
- \_\_\_ 3. 5'10"
- \_\_\_ 4. 6'3"
- \_\_\_ 5. 6'8"

#### C. Apparent Strength

- \_\_\_ 1. frail
- \_\_\_ 2. ....
- \_\_\_ 3. medium build
- \_\_\_ 4. ....
- \_\_\_ 5. brute

#### D. Knowledge/Ability/ Talent Germane to Interaction

- \_\_\_ 1. novice
- \_\_\_ 2. ....
- \_\_\_ 3. muddles through
- \_\_\_ 4. ....
- \_\_\_ 5. expert

#### E. Savior Faire

- \_\_\_ 1. social dunce
- \_\_\_ 2. ....
- \_\_\_ 3. rough at the edges
- \_\_\_ 4. ....
- \_\_\_ 5. charmingly adroit

#### F. Socio-Economic Status (visible indicators)

- \_\_\_ 1. lower class
- \_\_\_ 2. ....
- \_\_\_ 3. middle class
- \_\_\_ 4. ....
- \_\_\_ 5. upper class

**G. Authority**

- \_\_\_ 1. bus boy
- \_\_\_ 2. waitress
- \_\_\_ 3. teacher
- \_\_\_ 4. policeman
- \_\_\_ 5. chairman of board, president

**H. Education**

- \_\_\_ 1. grade school
- \_\_\_ 2. high school
- \_\_\_ 3. technical certificate.
- \_\_\_ 4. ordinary college
- \_\_\_ 5. prestige college

**I. Attire**

- \_\_\_ 1. street
- \_\_\_ 2. discount store
- \_\_\_ 3. department store
- \_\_\_ 4. specialty store
- \_\_\_ 5. high fashion shop; luxurious

**J. Personal Fame (reputation)**

- \_\_\_ 1. nobody
- \_\_\_ 2. school
- \_\_\_ 3. local community
- \_\_\_ 4. regional
- \_\_\_ 5. national

**K. Family Fame (reputation, social position)**

- \_\_\_ 1. nobody
- \_\_\_ 2. school
- \_\_\_ 3. local community
- \_\_\_ 4. regional
- \_\_\_ 5. national

**L. Speech**

- \_\_\_ 1. stutterer
- \_\_\_ 2. stammerer
- \_\_\_ 3. halting, hesitant
- \_\_\_ 4. fluid
- \_\_\_ 5. eloquent

**M. Eye Contact**

- \_\_\_ 1. 0%
- \_\_\_ 2. 25%
- \_\_\_ 3. 50%
- \_\_\_ 4. 75%
- \_\_\_ 5. 100%

**N. Voice**

- \_\_\_ 1. high-diminutive
- \_\_\_ 2. ....
- \_\_\_ 3. moderate
- \_\_\_ 4. ....
- \_\_\_ 5. full, overtones, color

**O. Carriage**

- \_\_\_ 1. slumped, head bowed
- \_\_\_ 2. head bowed
- \_\_\_ 3. slouches somewhat, eyes downcast
- \_\_\_ 4. erect body by head not high
- \_\_\_ 5. body erect and head high (poised)

**P. Expression of Ideas**

- \_\_\_ 1. uninformed and illogical presentation
- \_\_\_ 2. ....
- \_\_\_ 3.
- \_\_\_ 4. ....
- \_\_\_ 5. highly informed and logical presentation

(Joseph Reyher, 1979)

## APPENDIX F:

### Hypnotic Induction Research Project (HIRP) Experimenter Script

#### **Greeting:** (BRAC: Rest Cycle — Fatigue Condition)

Thank you for coming in this morning. We really appreciate your willingness to participate in this study, particularly since it meant coming in so early in the morning. The study is looking at the relationship between a person's level of susceptibility to hypnosis and the human circadian cycle known as the Basic Rest-Activity Cycle. This time in the morning is, of course, during the normal rest phase of the cycle. I think you'll find the hypnosis portion of the study quite interesting. It will involve basic motor tasks and won't include any personal or invasive questions. As you were told over the phone, we have to wait a little while for that in order to calibrate the correct cycle phase. While you wait I've got a movie for you to watch. I'm sorry there isn't a choice, but they're kind of expensive. I picked out a good one - with academy award nominations. It's called Lorenzo's Oil. Before you watch it, I just need you to read over this consent form and if everything is agreeable, to sign it indicating that you have voluntarily agreed to participate in the study.

Great. Enjoy the movie. I'll check in on you periodically to see how you're doing. If you need to use the restroom, it's... Just pause the movie and you can pick up where you left off.

#### (BRAC: Activity Cycle--Non-fatigue Condition)

Thank you for coming in this afternoon. We really appreciate your willingness to participate in this study, particularly since schedules can be so busy with both school and work during this time. The study is looking at the relationship between a person's level of susceptibility to hypnosis and the human circadian cycle known as the Basic Rest-Activity Cycle. This time in the afternoon is, of course, during the normal activity phase of the cycle. I think you'll find the hypnosis portion of the study quite interesting. It will involve basic motor tasks and won't include any personal or invasive questions. Before you begin the study I just need you to read over this consent form and if everything is agreeable, to sign it indicating that you have voluntarily agreed to participate in the study.

**Introduction (after film if rest cycle):**

Great. Before you get started on a few forms, let's see if the hypnotist is here, and I can introduce you to him....

...I'd like to introduce you to Mike/John (Mr. Parker). He is the hypnotist for the study.

(hypnotist has his own script keeping in style of induction)

**Pre-Test:**

Okay...just a few things for you to complete before you begin the hypnosis experience. Let me remind you again that all your answers will be kept completely anonymous. I don't want you to write your name on any of the forms. Your answers will be kept together by the number at the top, and we will not be linking your name to that number anywhere.

*(TAT):* This card has a picture on it. I'd like you to write a story about the picture. Your story should have a beginning and an end to it. You should write about what situation the person has just been in, what they are thinking or feeling about it right now, and then, what is going to happen in the future. What is the outcome of the story? How does the person feel about that outcome?

*(You'll read the first story as the person does the second TAT, and the next one during the PPF, Likert and figure drawing. If they did not give a complete response, hand it back to them at the end, and prompt for the missing answers.)*

*(Likert):* On this sheet, there are a couple of questions. For each of the questions please indicate the number that best describes your level of agreement with the statement by writing that number in the space next to the statement. Do you understand the instructions?

*(PPF):* On the next few pages you will find a series of categories on which I'd like you to choose your impression of the hypnotist you met a few minutes ago. Each category has five choices. Just place an X next to the number which you feel best fits your impression of the hypnotist. Take A for example: If you thought the hypnotist was sort of homely looking you might choose 2. On the other hand, if you thought he was fairly attractive you might choose 4. Do you understand? If you have any questions about the terms used in later categories, please feel free to ask me about them.

*DAP):* Now I'd like you to draw a person. Just draw it as well as you can.

(answer any questions with a non-leading response: eg. should I draw a man or a woman? *Whatever you'd like is fine.*)

*(Demographics):* Finally, I'd like you to fill out this page of demographic



information. It will remain completely anonymous just like the rest of your answers. Only the number on the corner will be associated with your responses. We are not keeping track of your name with the number.

*(To Hypnotist for session:)*

### **Post-Test:**

Now that you've completed the hypnosis experience I'd like you to fill out a few more forms before you leave. These are similar to the ones you filled out before. Once again, I need to read the directions to you. Let me remind you again that all your answers are kept completely anonymous, so don't write your name on any of the forms. Okay?

*(TAT):* This card has a picture on it. I'd like you to write a story about the picture. Your story should have a beginning and an end to it. You should write about what situation the person has just been in, what they are thinking or feeling about it right now, and then, what is going to happen in the future. What is the outcome of the story? How does the person feel about that outcome?

*(You'll read the first story as the person does the second TAT and the next one during the PPF, Likert and figure drawing. If they did not give a complete response, hand it back to them at the end, and prompt for the missing answers.)*

*(Likert):* On this sheet, there are a couple of questions. For each of the questions please indicate which number best describes your level of agreement with the statement by writing that number in the space next to the statement. Do you understand the instructions?

*(PPF):* On the next few pages you will find a series of categories on which I'd like you to record your impression of the hypnotist you were just with. Each category has five choices. Just place an X next to the number which you feel best fits your impression of the hypnotist. Do you remember how this form works? If you have any questions about the terms used in later categories, please feel free to ask me about them.

*(DAP):* Now I'd like you draw a person as well as you can.

*(Good-Bye):* That's it! Once again, thank you so much for volunteering to participate in our study. If you have any questions about the study you can call Aaron Werbel at 353-5258. Thanks again.

## **APPENDIX G**

### **Hypnotic Induction Study Consent to Participate**

**(Non-authoritarian Form)**

I, \_\_\_\_\_, agree to voluntarily participate in the hypnotic induction research study.

I understand that my participation involves approximately 2 hours of time and will include an hypnotic induction including various motor tasks, and a variety of pencil and paper measures to be completed before and after the hypnosis.

I understand that I maintain the ability under hypnosis to freely stop the procedure at any time that I become uncomfortable and may choose to end my voluntary participation at any time.

I understand that all data will be recorded in such a fashion that my identity remains anonymous and as such, I will remain anonymous in any report of research findings. Further, results of the completed study will be made available upon my request.

I understand that there will time allotted at the end of the formal hypnotic procedure for me to ask questions and discuss my experience under hypnosis.

If I have any questions I may call the principal investigator for this study, Aaron D. Werbel, at (517) 355-9564.

Date \_\_\_\_\_

Signature \_\_\_\_\_

**Hypnotic Induction Study  
Consent to Participate**

**(Authoritarian Form)**

I, \_\_\_\_\_, agree to voluntarily participate in the hypnotic induction research study.

I understand that my participation includes the reduction of sleep for one night, and approximately 4 hours of time the next morning which will include an hypnotic induction including various motor tasks, and a variety of pencil and paper measures to be completed before and after the hypnosis.

I understand that I maintain the ability under hypnosis to freely stop the procedure at any time that I become uncomfortable and may choose to end my voluntary participation at any time.

I understand that all data will be recorded in such a fashion that my identity remains anonymous and as such, I will remain anonymous in any report of research findings. Further, results of the completed study will be made available upon my request.

I understand that there will time allowed at the end of the formal hypnotic procedure for me to ask questions and discuss my experience under hypnosis.

If I have any questions I may call the principal investigator for this study, Aaron D. Werbel, at (517) 355-9564.

Date \_\_\_\_\_

Signature \_\_\_\_\_

## APPENDIX H:

### Demographic Questionnaire

Please answer the following questions by either filling in the information or circling the appropriate number. Remember, all information will remain anonymous.

1. Age \_\_\_\_\_
2. Gender -- (1) Female (2) Male
3. Ethnicity -- (1) White  
(2) Black  
(3) Hispanic  
(4) Asian/Pacific  
(5) Arabic  
(6) American Indian  
(7) Other  
If other please write in  
\_\_\_\_\_.
4. Religion -- Do you consider yourself to be:  
(1) Christian  
(2) Jewish  
(3) Moslem  
(4) Buddhist  
(5) Hindu  
(6) Deist (belief in a higher being, but no  
specific religious affiliation)  
(7) Atheist

**5. Marital Status -- Do you consider yourself to be:**

- (1) Single**
- (2) Married**
- (3) Separated**
- (4) Divorced**
- (5) Widowed**

**6a. If you are a student, what is your major and year:**

major \_\_\_\_\_

year \_\_\_\_\_

**6b. If you are not a student, what is your occupation:**

occupation \_\_\_\_\_

**7. Have you had any previous experience with hypnosis (if yes, please describe briefly):**

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