

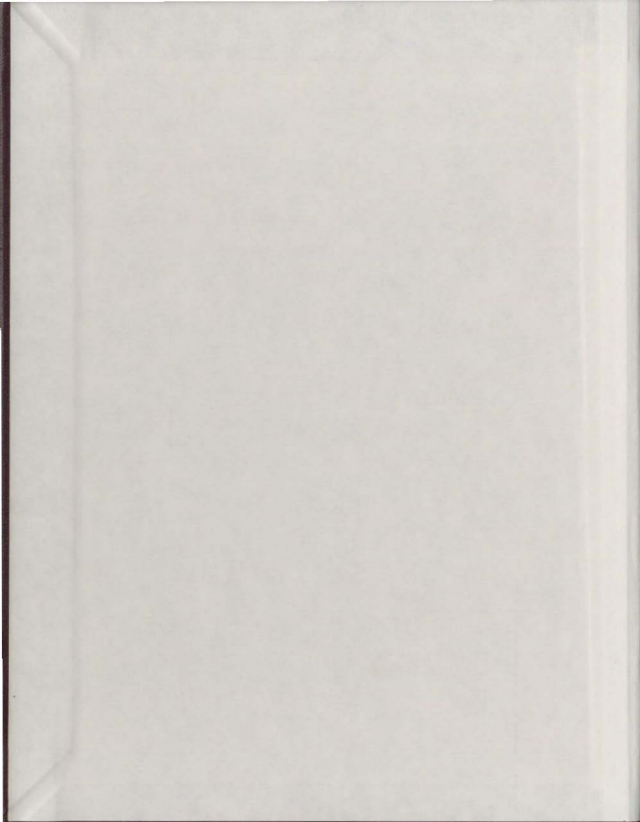
EXTRAVERSION AND HYPNOTIZABILITY: AN
INTERACTIONAL ANALYSIS

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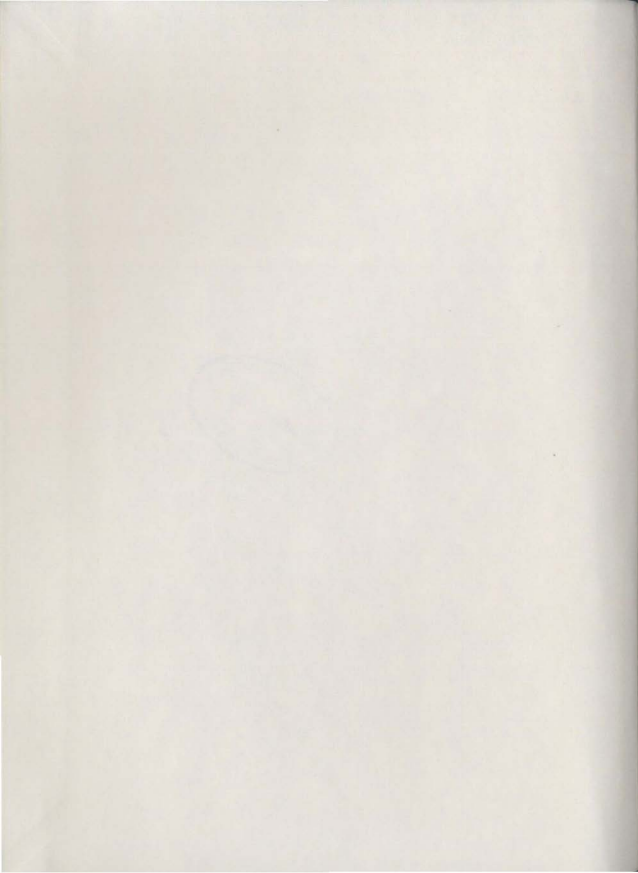
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EXTRAVERSION AND HYPNOTIZABILITY:
AN INTERACTIONAL ANALYSIS

by



Frederick L. Pelletier, B.A.

A Thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Science

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ABSTRACT

The purpose of this experiment was to conduct an interactional analysis of the factors that influence or determine hypnotizability. Two series of rapid hypnotic inductions were developed; in one, the inductions were extremely varied and consisted of three unconventional inductions, and in the second series, three successive eye-closure inductions were administered.

It was hypothesized that there would be an interaction between the personality variable of extraversion and the method of hypnosis. Extraverts were hypothesized to demonstrate greater hypnotizability than introverts in response to the varied hypnotic induction while it was predicted that the introverts would respond more strongly to repeated eye-closures.

Sixty university students were divided into high and low extraversion groups on the basis of their extraversion scores. Twelve of these were drawn randomly and assigned to an external control group. The remaining subjects were subdivided and assigned to one of the two induction conditions. All subjects completed an interest rating scale at the end of the experiment.

The results of the experiment indicated that extraverts were more hypnotizable than introverts. The predicted hypothesis was not confirmed, but an unanticipated interaction was apparent: The rapid successive induction procedures produced greater hypnotic responsivity in extraverts when their scores were compared to the external control group which received a standard eye-closure induction only. This difference was not evident with regard to introverts.

As predicted, hypnotizability was found to correlate with interest. The differences among the group means for the interest ratings were the same as those of the hypnotizability scores. These results were discussed within the framework of Eysenck's theory of extraversion. In addition, methodological difficulties were discussed and suggestions concerning future research were made.

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INTRODUCTION

Introduction.

The purpose of this experiment was to assess the contribution of certain influences to the hypnotizability of individuals. These are the individual's personality, the situational influences, and the interaction between the two. Research in the area of hypnosis tends to treat hypnotizability as a single trait or dimension, and this is reflected by the refinement of standardized hypnotic susceptibility scales. However, clinical hypnotists, such as Milton Erickson, actively modify aspects of their hypnotic inductions in order to meet the unique needs of their subjects.

Erickson's utilization approach acknowledges that an individual's attitudes, expectations, motivations, and other characteristics affect the degree to which hypnotic trance can be induced. Therefore, it is suggested that the hypnotist present a tailored set of instructions which suits the unique personality of the subject. Despite his detailed clinical accounts, Erickson does not report the results of controlled investigation or other types of empirical verification. Still, there exist adequate experimental paradigms which permit researchers to specify the unique contributions of the subject's personal characteristics, the hypnotic situation, and the interaction between these two

factors.

In the last decade, psychologists have voiced a degree of dissatisfaction with traditional trait approaches to conceptualizing personality. A similar lack of satisfaction can be noted with regard to the situationist position and at this time, there is growing theoretical interest concerning the interaction between personality, or organismic, variables, and situational influences. A statistical assessment of these factors is achieved by partitioning the total variance of a dependent variable into the variance explained by the influence of the "person", the variance due to the "situation", and that which is due to the statistical interaction between the two. Any remaining variance is due to unexplained variance. By using the analysis of variance framework, it is possible for an experimenter to evaluate the influences of different levels of a personality variable which are crossed with different levels of a situational variable, as well as the interaction between the two. Through such analysis, clinical applications of hypnosis may be better understood.

An interactional model of hypnotizability.

Personality psychologists attempt to specify the determinants of behavioural variation (Endler & Magnusson, 1976). The questions which these investigators ask concern over manifestations of personality, the measurement of

personality, and the development of personality. Endler and Magnusson (1976) distinguish four models in this area: trait, psychodynamic (psychoanalytic), situationist (behaviourist); and interactionist.

The trait and psychodynamic models are similar in the sense that a basic personality "core" is seen as the significant determinant of behaviour. An important derivative of the trait model is that the personality of the individual is the basis for consistency in behaviour across situations. Investigators of this theoretical persuasion compare individuals in terms of the degree to which they differ on dimensions of relatively enduring tendencies to action (Monte, 1977). Allport (1966) suggests that traits account for the individual's styles of thinking and manifest behaviours.

The trait approach is distinct from other models on the basis of the following three assumptions (Sundberg, 1977). First, the trait model assumes that all persons have similar characteristics but differ in the degree to which they possess these. Secondly, traits are relatively permanent. and finally, behavioural measures may be useful as indicators of the extent to which an individual possesses a specific trait. Once a trait is inferred (through measurement) it is used to account for observed behavioural consistencies (Mischel, 1968). The essential feature of

this approach is its adherence to the viewpoint that, given a measure on a trait dimension, behaviour can be predicted and/or accounted for.

Situationism is the "antithesis" of the trait approach (Endler & Magnusson, 1976). Characteristics of situations (settings) are held to be the chief determinants of individual behaviour. It is clear how this model differs from the trait model. Variations in behaviour are observed as a function of variation among stimuli in the environment. The model has its roots in "stimulus-response" conceptions of behaviour, and the main proponent of this viewpoint is B. F. Skinner (1953) who has stressed the controlling influence of the environment and its role as the most important determinant of behaviour. A number of personality theorists, such as Mischel (1968), have applied this perspective to formal theories of personality and behaviour.

The third model is interactionism. This particular approach has emerged partly as a consequence of dissatisfaction with the trait model. In a number of studies, attempts have been made to determine the amount of variance accounted for by individuals and the amount due to situations. In many cases, the greatest amount of variation is accounted for by the person-situation interactions. One author has summarized the results of eleven person-situation studies, which used analysis of variance to determine the

proportions of variance which were explained by situations, persons, and person by situation interactions (Bowers, 1973). Bowers suggested that the then available data failed to indicate the superiority of either the trait approach or the situationist position. In these eleven studies, the average proportion of the total variance due to person sources was 12.71 percent, and the proportion of variance due to the situation source was 10.17 percent. However, the average proportion of variance attributable to the person by situation interaction was 20.77 percent.

Interactional analyses have increased in their level of sophistication, and powerful statistical techniques are being employed. Endler (1966) has developed a variance components analysis and has demonstrated its utility in a number of studies which focus on anxiousness (Endler & Hunt, 1966, 1969).

Endler (1975) contends that a useful paradigm for illuminating the trait versus situation issue is the interactionist one. He stresses the need to study how situations and persons interact in evoking behaviour. Such an approach will lead to less misguided research (Endler, 1975). The assumptions of this paradigm can be summarized as follows (Endler & Magnusson, 1976):

1. Behaviour is determined by a continuous process of interaction between the person and the situation (feedback).
2. The individual is intentional and active in this interaction process.

3. Cognitive factors play an important role in the process.
4. The psychological meaning of the situation to the individual is an essential determinant of behaviour.

These assumptions provide a valuable framework through which many facets of personality and behaviour may be explored.

The person by situation approach to personality (Endler & Magnusson, 1976) has implications for the assessment of hypnotizability. Milton Erickson (1967) has demonstrated, albeit anecdotally, the value of altering aspects of hypnotic inductions to meet the needs of the individual subject. As previously discussed, the net effect with respect to hypnotic responsiveness can then be said to result from the interaction between two sets of variables.

Recently, there have been many encouraging attempts to "modify" hypnotic responsivity. This area of research focusses primarily on situational alterations or training procedures as methods of enhancing hypnotizability. In these investigations, subjects are specially trained, or provided with information, in such a way that scores on susceptibility scales are observed to increase meaningfully. For example, Diamond (1972) reported that in a study of 70 students, verbal modelling cues were associated with significant increases in scores obtained from the Harvard Scale of Hypnotic Susceptibility.

Diamond (1974) has elaborated a related issue sometimes referred to as the "clinical-experimental controversy". Clinically-oriented researchers have stressed that appropriate training techniques can substantially modify responsivity. However, those of experimentalist persuasion characterize hypnotic susceptibility as a "relatively stable trait" that is not likely to change significantly. Diamond also suggests that the hypnotist's adaptive skill is eliminated where conditions are controlled and standardized. Consequently, investigators are engaged in the critical examination of various interventions and training approaches as they affect hypnotic responsivity. Many studies have been conducted, and most of these have attested to the importance of three sets of variables (Diamond, 1977):

1. Optimal learning factors (e.g. attention).
2. Attitudinal and set factors (e.g. trust).
3. Cognitive strategy factors (e.g. imagination).

It can be proposed that these factors represent influences which "interact" with existing organismic characteristics. The assessment of the interaction between personality and training variables has been entirely ignored. Despite such neglect, it has been suggested that if modifiability is better understood, it may illuminate many of the issues which are concerned with the influence of personality on hypnotizability (Perry, 1977).

Even though "person" variables have been excluded from these experiments, the investigation of modifiability still

marks a crucial step in the evaluation and understanding of external influences on hypnotic susceptibility.

An interactional model may be proposed, one which lends itself to experimental analysis. Since it is probable that hypnotizability is the product of both person and situational factors, such responsiveness will be enhanced if specific person characteristics are matched with specific situational characteristics that suit the individual's needs. The traditional approach to discovering correlates of hypnotizability has been to obtain scores on a personality dimension, administer a standardized induction, and then compute correlation coefficients for the two sets of scores to obtain measures of relationship. The poor success of this method is partially attributable to the prominence of hypothetically more important influences, namely the interactional nature of the hypnotist-subject relationship.

The analysis of variance methods discussed by Endler (1966) are useful prototypes for an interactional model of hypnotizability. Subjects may be assigned to levels of a personality dimension in accord with scores obtained from a test of a theoretically relevant personality domain. In addition, hypnotic inductions can be systematically varied along a number of dimensions. For example, inductions may differ along a continuum of authoritativeness. Or, they can

differ according to how quickly specific instructions are introduced in the induction. And finally, it might be possible to vary inductions in ways which will enhance trust on the part of the subject or lead to submission.

The person by situation paradigm provides a means of testing clinical findings. The challenge which exists is to select well-researched personality dimensions which may be used to define person or organismic variables. In addition, the researcher must design hypnotic induction procedures (situational variables) which have the greatest likelihood of interacting with the person variables.

Utilization techniques in hypnosis.

Interactional considerations are enshrined in the concept of utilization techniques, and such techniques provide an example of how an interactional model of hypnotizability operates in the context of clinical application. The most widely cited advocate of utilization techniques is Milton Erickson. In his most recent works, Erickson has described this concept in great detail and has illustrated his points through numerous case reports. It is apparent that these recent explanations are more formal elaborations of a method which he has shared with hypnotists for over twenty years.

In an early article, Erickson (1967) wrote of the

difficulty of hypnotizing different individuals and obtaining comparable degrees of hypnosis. The reason that he proposed to account for this major problem concerned the fact that hypnosis is largely dependent upon "inter- and intrapersonal relationships". These relationships change as a function of an individual's personality reactions to various aspects of hypnosis. The most important issue raised by this viewpoint is that individual personalities are unique, and that one can expect a degree of variation in patterns of spontaneous and responsive behaviour. Erickson suggests that such behaviour varies in relation to time, the particular situation, the therapeutic aims, and the personalities of the hypnotic subjects (Erickson, 1967).

Erickson notes that statistical averages of hypnotic behaviour are obtainable, but that such measures can not refer to the performance of any one subject. Consequently, individual performances can not be appraised through statistical estimates, nor can certain hypnotic phenomena be evaluated. He also remarks that there has been a tendency to develop induction techniques which act more as control mechanisms and that this is done on the assumption that identical hypnotic behaviours will be produced by different individuals, provided that the suggestions are identical. Such refinements disregard the individuality of the subjects. Yet, hypnotic subjects are likely to vary in their capacities to learn, their attitudes, and their

purposes for being hypnotized. Erickson adds that the prevailing emphasis is on external factors and the subject's response to these.

An inexperienced hypnotist tends to alter the response of the subject to fit his/her conceptions of how the subject "should" respond (Erickson, 1967). One might suggest that the subject becomes a vehicle through which the needs of the hypnotist are met, rather than the needs of the patient. The implication of this process is that techniques focus on the actions of the hypnotist, while the attention devoted to the subject's activities and experiences is inadvertently minimized.

Erickson later proposed the application of the "naturalistic approach" to hypnosis, in contrast to the "formalized, ritualistic procedures of trance induction" (Erickson, 1958). The term "naturalistic" refers to the hypnotist's acceptance of the situation without any attempt to restructure it psychologically. Trance induction is aided by the behaviour of the patient rather than hindered. This term is actually the forerunner of the term "utilization". Erickson provides numerous case examples in an effort to clarify his position and to illustrate the process. Interestingly, this method directly reflects Erickson's general approach to psychotherapy (Haley, 1973).

Erickson formally introduced the term "utilization techniques" in 1959. His explanation is prefaced by his acknowledgement that trance induction procedures are based primarily on the alteration of the subject's momentary activities and on the specific instructions. The chief requirement of such an approach is that the subject is accepting of an externally imposed form of behaviour, whether active or passive (Erickson, 1959). Erickson's thesis rests upon the premise that there are many individuals who appear unresponsive, perhaps resistant, to the normal hypnotic routines, but in fact, these people may be amenable to hypnotic experiences. It is reasoned that such individuals do not have the ability to cooperate in order for any alteration to occur. Techniques of utilization, which sometimes take the form of simple reversals of normal hypnotic procedures, may be applied to meet the needs of these individuals. These techniques have in common the hypnotist's acknowledgement and acceptance of the individual's behaviour despite its adverse character. Such behaviour (often in the form of resistance) is incorporated into the process of trance induction.

The utilization approach to trance induction and the utilization of the patient's presenting behaviour are seen as central to the therapeutic process, and the elaboration of these components represents Erickson's original contribution to the field of clinical hypnosis (Erickson,

Rossi, & Rossi, 1976). In his most recent writings, Erickson has further clarified his position as follows (Erickson et al., 1976):

It is in the clinician's ability to evaluate and utilize patients' uniqueness together with the exigencies of their ever-changing real-life situation that the most striking hypnotic and therapeutic results are often achieved. The utilization approaches achieve their results precisely because they activate and further develop what is already within the patient rather than attempting to impose something from the outside that might be unsuitable for the patient's individuality. (p. 20)

Erickson has recently expressed the concept in a more abbreviated manner: "Whatever the patient presents to you in the office, you really ought to use..." (Erickson & Rossi, 1981).

A significant feature of the more recent formulations and accounts concerns the increased number of useful applications of the utilization approach. In a further clarification, Erickson and Rossi (1979) have noted that through this approach, the attention of the subject is fixed on an important aspect of his/her personality and behaviour. This leads to an inner focus which Erickson defines as therapeutic trance. This is what is meant by "utilizing" the person's unique personality and behaviour to facilitate trance, and a number of possible approaches can be listed (Erickson & Rossi, 1979):

1. Accepting and utilizing manifest behaviours.
2. Utilizing emergency situations.
3. Utilizing the person's inner realities.

4. Utilizing resistances.
5. Utilizing negative affects.
6. Utilizing the person's symptoms.

An alternate way of interpreting Erickson's approach can be suggested. Personality differences among hypnotic subjects are obvious; consequently, correspondingly different induction techniques are necessary to facilitate hypnotic trance. In meeting this requirement, the hypnotist actively manipulates situational factors to accommodate these inherent individual differences in behaviour and personality. To apply a slightly different terminology, the hypnotist provides a set of instructions or a procedure which "interacts" with the personality and behaviours of the subject. This interaction is probably affected by a number of additional factors such as the subject's attitudes and the purpose of the hypnosis session. Hypnotic trance can be conceptualized as the combined effect of the person's characteristics and the hypnotic routine. In this sense, the utilization approach can be defined as a process whereby the person's characteristics are identified by the hypnotist, and then integrated into the hypnotic situation in a manner which maximally facilitates hypnotic trance. In other words, hypnosis is achieved as a function of the interaction between the characteristics of both the person and the situation.

Milton Erickson's distinctive clinical innovations

represent an alternative, perhaps controversial, approach to therapeutic hypnosis. Most of his insights and elaborations are illustrated through numerous case examples, vividly described throughout his writings. However, if his approach is evaluated in terms of the interaction of two (or more) sets of variables, such as person and situation characteristics, then there is a strong possibility that the principles may be operationalized and subjected to scientific analyses. It is conceivable that two bodies of evidence will eventually be generated: the numerous clinical observations on the one hand, and the empirical findings of the experimental investigator on the other.

Hypnosis and extraversion: An interactional analysis.

The dimension of extraversion-introversion represents one of the oldest and most widely used descriptive categories in psychology. It is one of the few dimensions which account for a substantial proportion of common variance shared by test items or specific traits (Morris, 1979), and it has consequently been regarded as one of the most productive dimensions (Carrigan, 1961).

Although the concept of extraversion goes back possibly hundreds of years, it was Carl Jung who first used the term in the contemporary psychological literature. In 1924, Jung defined extraversion as "an outward-turning of the libido", a state in which an individual thinks, feels, and acts in

relation to the object (Jung, 1924). It is an "outgoing transference of interest from the subject to the object". On the other hand, introversion is a "turning-in" of the libido, whereby interest recedes toward the subject, and the object receives only a secondary value.

The focus of the present review is on H. J. Eysenck's conception. Eysenck has pointed out the differences between his definition of extraversion and the definition proposed by Jung. (Eysenck & Rachman, 1973). In fact, Eysenck tends to give far greater credit to the pioneers of factor analytic methods than to Jung and his predecessors, noting that the present system and terminology stand and fall by empirical confirmation (Eysenck, 1960).

Extraversion and introversion are defined by Eysenck (1964) as follows:

The typical extravert is sociable, likes parties, has many friends, needs to have people to talk to, and does not like reading or studying by himself. He craves excitement, takes chances, acts on the spur of the moment, and is generally an impulsive individual. He is fond of practical jokes, always has a ready answer, and generally likes change; he is carefree, easygoing, optimistic, and likes to 'laugh and be merry'. He prefers to keep moving and doing things, tends to be aggressive and loses his temper quickly; his feelings are not kept under tight control and he is not always a reliable person.

The typical introvert is a quiet retiring sort of person, introspective, fond of books rather than people; he is reserved and reticent except with intimate friends. He tends to plan ahead, 'looks before he leaps', and distrusts the impulse of the moment. He does not like

excitement, takes matters of every day life with proper seriousness, and likes a well-ordered mode of life. He keeps his feelings under close control, seldom behaves in an aggressive manner, and does not lose his temper easily. He is reliable, and places great value on ethical standards. (p. 35)

The above descriptions refer to the characteristics of extraversion and introversion. However, Eysenck's system involves a bit more complexity. Eysenck (1960) suggests that the extraversion dimension is related to the level of excitation of the individual's nervous system. Extraverted individuals show weak excitatory and strong inhibitory potentials, whereas introverts show strong excitatory and weak inhibitory potentials. Following this reasoning, investigators have endeavoured to confirm the notion that introverts condition better than extraverts in laboratory experiments (Vogel, 1961). Despite the fascinating nature of these formulations, the present discussion will be confined to aspects of extraversion which relate to interpersonal characteristics.

The most popular assessment device in this area is the Eysenck Personality Inventory (EPI) (Eysenck & Eysenck, 1968). This scale is an extension of the Maudsley Personality Inventory (Eysenck, 1959). The scale was developed through repeated factor analyses, using several items from earlier questionnaires. There are two forms of the scale, both yielding highly satisfactory reliabilities. Two groups received both forms of the scale and were

retested approximately one year later. For the first group (N = 92), the test-retest reliabilities for Form A and Form B were $r = .82$ and $r = .85$, respectively. For the second group (N = 27) the respective reliabilities were $r = .97$ and $r = .80$ (Eysenck & Eysenck, 1968). Validity has been established satisfactorily as well, and Eysenck and Eysenck (1968) report a number of studies which attest to the factorial, construct, and concurrent validity of the device.

The extraversion dimension has been subjected to numerous factor analyses by a number of investigators. Eysenck and Eysenck (1963) derived two factors, sociability and impulsiveness. In other analyses, the sociability factor emerges with greater consistency than the impulsiveness factor (Morris, 1979). Sociability is generally defined as participation and enjoyment in social activities. Vagg and Hammond (1976) recently evaluated the EPI scores of 552 subjects and reported two large factors, neuroticism and sociability. Neuroticism is actually one of the two major dimensions which the EPI purports to measure, so the finding tends to support the factorial validity of the EPI.

Eysenck and Eysenck (1977) have recently taken a more critical look at the impulsiveness factor. This was necessary because not all investigators found this to be a significant factor. Consequently, they factor analysed

items from several questionnaires which dealt with this dimension, and which were known to correlate with extraversion. They concluded that the global dimension of impulsiveness was comprised of four distinct factors. These were labelled narrow-impulsiveness, risk-taking, non-planning, and liveliness.

Most attempts to correlate extraversion and hypnotizability have relied on one of the following inventories: the Maudsley Personality Inventory (Eysenck, 1959) or the Eysenck Personality Inventory (Eysenck & Eysenck, 1968). The second of these (EPI) is actually an extended version of the first (MPI).

One of the most widely cited of the earlier studies was conducted by Furneaux and Gibson (1961). In the 1930s, a small group of experiments was reported, and these yielded generally negative results (Barber, 1964). Thirty years later, Furneaux and Gibson conducted a study based on a sample of 99 subjects. They found that subjects who scored highly on the Lie scale (L) of the EPI were less hypnotizable as indicated by their responsiveness to a body-sway suggestion. The correlation between this suggestion and L was $r = -.46$. These authors removed the "liars" and then separated the extraverts and the introverts and observed that stable extraverts and neurotic introverts were the most hypnotizable, whereas neurotic extraverts and

stable introverts were virtually unsusceptible. To explain these findings, Furneaux (1961) advanced a theoretical model, suggesting that in tests of a chiefly interpersonal nature, extraverts attend to activities of others, leading them to generate higher levels of drive. Therefore, one can predict that stable introverts are far less responsive because they generate very little drive. On the other hand, neurotic extraverts score poorly because their drive level is too high. This latter hypothesis is based on the supposition that supraoptimal drive leads to activation of "prepotent opposing reaction tendencies" within the individual (Furneaux, 1961).

In a study conducted shortly after, Lang and Lazovik (1962) found that in their sample of 46 students, hypnotizability was negatively related to neuroticism and positively related to extraversion, as measured by several scales. These authors concluded that such findings contradicted the theory of Furneaux and Gibson (1961); the influence of extraversion was not moderated by neuroticism. Similar lack of confirmation was reported by Hammar (1963) on the basis of nonsignificant correlations between hypnotizability scores and extraversion. In fact, he found a highly significant correlation between hypnotizability and neuroticism. It should be noted that this experiment was in no sense a replication. Although the MPI was used to measure personality, the author assessed hypnotizability

using a questionnaire rather than a standardized scale or task. However, other authors, such as Vingoe (1966), have also reported a lack of relationship between hypnotizability and extraversion (using the EPI). Another article reported no relationship between hypnotizability and the "extroversion factor" of the 16PF in two separate experiments based on a total sample of 56 subjects. (Rhoades & Edmonston, 1969).

While several reports indicate negative findings, one study found a pronounced reversal of the relationships espoused by Furneaux and Gibson (1961). Hilgard and Bentler (1963) used the Stanford Hypnotic Susceptibility Scale, Form A in an attempt to replicate the original finding, this time using a sample of 142 subjects. Their findings were in total opposition; stable extraverts and neurotic introverts were less hypnotizable than the other combinations, and liars were found to be more susceptible. The authors attributed the conflicting findings in the literature to instability across successive samples. They also stated that extraversion could not yet be used to predict hypnotizability.

The most recent reports have further clouded the issue. Gibson and Curran (1974), in a study using 43 subjects, found a similar relationship to that proposed by Furneaux and Gibson (1961), this time relying on the EPI and the

Stanford Hypnotic Susceptibility Scale, Form "A". The only difference in their results was that the scores of the liars were included in the analyses. In a subsequent replication (Gibson & Cofcoran, 1975), the results were confirmed, although these findings were not as striking as those from the previous study.

All of the studies noted above share a common characteristic, that is, none incorporates the notion of interaction among variables. In the present discussion, attention is devoted to the interactions between personality and situational variables. However, in certain situations, interactions can be demonstrated among the various personality dimensions themselves. This area of research appears to have been neglected by these experimenters.

Further relevant findings have been obtained using a slightly modified theoretical framework. Over a number of years, Hilgard (1970) has been conducting interviews with hypnotic subjects and relating their behaviours to a twofold dimensional system which resembles Eysenck's (1961) extravert-introvert dimension. Findings indicate that the "normal-outgoing" group contains significantly more hypnotizable individuals than the "troubled-withdrawn" group. Unfortunately, such results have not been sufficiently elaborated to provide a satisfactory predictive basis. Another related finding has been reported by

Schwartz and Burdzel (1977): One hundred and nineteen subjects received the Clinical Analysis Questionnaire (Delhees & Cattell, 1971) and the Harvard Group Scale of Hypnotic Susceptibility. Noting the limited success of the correlational approach, these authors factor analysed their data. One of the two factors obtained was composed chiefly of sociability. The other two components of this factor were "need for ritual" and "high hypnotizability". Because hypnotizability loaded highly on this factor, the authors labelled it "general hypnotizability". This finding does not confirm a relationship between extraversion and hypnotizability, but at the same time it does not contradict such a notion.

The studies to date have not provided a clear relationship between extraversion and hypnotizability. Although there exists the possibility that the influence of extraversion is moderated by a second dimension (such as neuroticism), such a view is not held with unanimous approval. Even when such relationships are reported, their actual predictive power is very limited.

It would seem that a trait as stable as hypnotizability must have a certain number of personality correlates. It is not surprising, therefore, that extraversion is not the only personality dimension which has received attention from those in search of predictors of hypnotizability. Despite

this, research efforts have yielded extremely discouraging results. A number of reviews of selected literature have been produced (Deckert & West, 1963; Barber, 1964; Silver, 1973), but it appears that hypnotizability is a dimension which is not closely related to other traditional traits (Frankel, 1976).

The research in the area of personality and hypnotizability has met with little success in the attempt to determine specific correlates. However, such research is weakened by recent verification of the influence exerted by person by situation interactions. Erickson may be totally correct in his supposition that characteristics of the individual may be understood and subsequently utilized in the induction of hypnotic trance; but, this can only be determined by conducting studies which modify aspects of the situation, and examine the separate and combined influences of person variables and situational variables.

The personality dimension of extraversion-introversion is one of those variables which requires such investigation. There is already evidence that this trait is highly important as a determinant of various social-interpersonal behaviors. Fortunately also, Eysenck (1964) has clearly described the characteristics of extraverts and introverts, and has developed in the EPI a highly reliable and valid device for the measurement of these characteristics.

In addition, there is evidence that this dimension interacts with situational variables to modify hypnotic responsiveness. Recent studies, conducted at the Memorial University of Newfoundland have demonstrated the interaction between extraversion and various hypnotic induction situations. These have focussed primarily on the sociability component of extraversion. For example, in one study (Preston, Note 1), extraversion interacted with a particular induction situation. Using a within-subjects procedure, each subject was hypnotized in two types of situations; in one, the induction was administered in a group format and in the other, the subject received an individual administration. The orders were counterbalanced and were not found to affect significantly the outcome of the experiment. Introverts in the group situation demonstrated lower hypnotizability than the extraverts in the group situation, but there was no difference between the two groups in response to individual administrations.

Using basically the same within-subjects design, the results of the above study were replicated by Coleridge and Donovan (Note 2). These authors also obtained a significant interaction between extraversion (using subjects with extreme extraversion scores) and the induction situation (group versus one-to-one administrations). In addition, they noted some important changes in the means for hypnotizability over sessions. The extraverts obtained

lower scores during the second session than they did during the first. However, this trend was reversed for the introverts: They tended to score higher during the second session than they did during the initial session. In this particular study, the two inductions which each subject received were administered about a day apart.

A possible explanation for these results addresses the second major aspect of extraversion. That is, extraverts are hypothesized to seek stimulation and are thought to prefer experiences which are varied, novel and exciting. The introverts in this experiment may have felt more comfortable in the second session because they were fully aware of the procedures involved and were less apt to be surprised. For them, the second session may have been more predictable and would have better retained their attention and interest than did the initial experience. On the other hand, the extraverts may have perceived the second session as boring and repetitive, and consequently, their interest and attention would have been considerably reduced. These findings may be linked to Eysenck's theory of extraversion. Extraverts require a greater degree of stimulation and variety to enhance their low cortical arousal. However, the introverts, who already demonstrate strong excitatory potentials, would respond with equal or greater interest and attention during a second administration. This argument assumes that hypnotizability is enhanced when the subject's

interest is stimulated by the procedure. In other words, if the extraverts receive roughly the same procedures more than once, they will become bored and distracted. In contrast, the introverts will show enhanced hypnotizability during a second situation, because the second session will be perceived as predictable, well-ordered, and totally expected.

As previously discussed, the dimension of extraversion consists of a number of aspects of personality. It is important to specify as precisely as possible the aspect of extraversion which is to be manipulated. In the present experiment, two inductions were developed which would permit a test of the notion that extraverts would be less hypnotizable if a session was repetitive and predictable (uninteresting for the extravert). Using the same procedure, introverts would be expected to have higher hypnotizability scores than the extraverts.

In the present experiment, two induction situations were constructed. Each situation consisted of three rapid repeated hypnotic inductions, and each was then followed by an assessment of hypnotizability. Very often, hypnotists administer successive rapid inductions in an attempt to deepen hypnotic trance. When used in such a manner, the method is referred to as "fractionation" (Weitzenhoffer, 1957; roger, 1963). Each series consisted of three rapid

inductions. In one series which was varied and slightly unusual, the individual received three rapid inductions: a sway induction, a coin drop induction, and an eye closure induction (using the Spiegel method). The first two of these are described by roger (1963) and the third by Spiegel and Spiegel (1978). In the second series, the individual received three eye closure inductions, all of which required that the person stare at a small object. These were similar to the induction described by Weitzenhoffer and Hilgard (1959). It was hypothesized that the extraverts would respond more positively to the varied induction series than the nonvaried one, because their attention and interest is facilitated by situations which are varied and novel. The extraverts would become bored by the three inductions which were similar and, therefore, their attention would be reduced, and they would be less likely to become hypnotized. The introverts were hypothesized to respond in the opposite manner. Because they do not prefer as much stimulation as extraverts do, they would feel more comfortable with the nonvaried series. Each induction series was followed by test items which measure hypnotizability. This allowed for a satisfactory examination of the interactional influence of levels of extraversion and types of hypnotic inductions.

The results of the experiments at Memorial University discussed earlier were obtained using a within-subjects

procedure. In the present experiment, a between-subject's procedure was employed. This step was taken to eliminate the risk of order effects, because it has been shown that counterbalancing is not always an effective method of controlling for these (Poulton, 1973). Consequently, extraverts and introverts were defined by dividing the extraversion scores of volunteers at the median and randomly assigning subjects within each group to one of the two conditions.

An addition to the earlier design was made to determine whether or not the subject's level of interest was related to his/her hypnotic responsivity. Also, it was important to establish whether or not the extraverts would perceive the varied hypnotic induction as more interesting than the repeated eye-closure induction. To accomplish this, subjects were asked to complete an interest rating scale at the end of the experiment. It was hypothesized that these ratings would correlate with hypnotizability.

To conclude, the basic notion behind this interactional analysis was that the method of induction represented a situational variable which interacted with a person variable, the dimension of extraversion-introversion. Support for the hypothesis would illuminate the processes inherent in clinical applications of hypnosis such as the utilization techniques proposed by Milton Erickson.

METHOD

Subjects. A total of 60 subjects was drawn from several introductory psychology classes. There were 30 males and 30 females, and their average age was 17.9 years. Forty-eight of these served as subjects in one of four experimental conditions. The remaining 12 constituted an external control group which received a standard induction and a hypnotizability scale, and completed an interest rating scale. The 48 subjects were divided into high and low extraversion groups based on their extraversion scores, and then assigned systematically to one of the two hypnosis conditions. The purpose of the external control group was to permit post-hoc comparisons with the experimental groups. In this sense, the external control group served as a normative group.

The experimenter administered the Eysenck Personality Inventory (EPI) while at the same time providing the students with a form upon which they could indicate their willingness to participate in a half-hour hypnosis experiment. Those who were willing were asked to provide their names and telephone numbers, and this group of volunteers formed the population of possible subjects for the experiment. At the time of the initial administration, students were told by the experimenter that they were being recruited for an experiment. Of those who indicated an

interest, a number were to be selected, depending on the results of the EPI. The students were told that they would be paid for their participation, and that an experimenter would contact them during the following week to arrange suitable times. Finally, the experimenter provided a brief discussion about hypnosis and its uses, and offered to answer any questions.

A research colleague was responsible for scoring the EPI forms and for executing the assignment procedure. These steps were taken to prevent the experimenter from being influenced by any knowledge of the EPI scores of subjects in the experiment. The colleague first scored the Lie scales for each of the subjects. Individuals whose scores were greater than four were removed from the subject pool. After scoring the extraversion scale, 12 subjects were drawn at random to form the normative group, and these individuals were contacted and given the standard induction, the hypnotizability scale, and the interest rating scale.

The remaining subjects formed the basis of the sampling pool for the experimental conditions. They were split into low and high groups on the basis of their extraversion scores (median split). The colleague then randomly ordered the members of these two groups into two respective lists. Each subject within his/her respective list was assigned to one of the two conditions. The first in each was assigned

to the first condition, the second in each to the second, the third in each to the first, and so on. This ensured random assignment to conditions and a double-blind procedure.

Once these steps had been completed, the colleague prepared an alphabetized list of names and telephone numbers of subjects, indicating the condition to which each was assigned. All that remained was for the experimenter to contact each subject and administer the assigned procedure. If at any time a subject was unavailable, the experimenter contacted the colleague and requested a replacement subject. Because the colleague retained the original lists, it was possible to reassign a replacement without the experimenter's being aware of the subject's score on the EPI.

Materials. The EPI, Form A (Eysenck & Eysenck, 1968) was used as the measure of extraversion-introversion. At the time of the initial administration, a sheet was attached to the EPI score form; this sheet contained instructions and a section asking whether or not the student was willing to participate in a half-hour hypnosis experiment (see Appendix A). Students also received verbal instructions at this time, and were provided with the opportunity to ask questions (see Appendix B).

Two sets of hypnotic inductions were designed. Before these were administered, each subject received a formal introduction designed to clarify any misconceptions of hypnosis and to explain the experiment (see Appendix C). For the purpose of this experiment, two contrasting sets of rapid successive inductions were developed. The first series consisted of three inductions which were quite different from one another (see Appendix D) and the second series consisted of three eye closure inductions which were extremely similar to one another (see Appendix E).

A set of instructions consisting of eight test suggestions was used to assess hypnotizability (see Appendix F). The scale and the scoring system were adapted from the Stanford Hypnotic Susceptibility Scale, Form A (Weitzenhoffer & Hilgard, 1959). In addition, a more conventional eye closure induction procedure was used (see Appendix G). This was also an adaptation of the standardized scale developed by Weitzenhoffer and Hilgard (1959). It is important to note that the eye-closure technique employed by Weitzenhoffer and Hilgard (1959) is also included as one of their test suggestions. In the present experiment, this was modified. The eye-closure was used only for the purpose of inducing hypnosis and was, therefore, excluded from the scoring scheme.

After the experiment, each subject indicated how

interesting he/she had found the session using the standard interest rating scale (see Appendix H). Finally, each subject then received a formal debriefing presentation which was designed to explain the experiment to the subject and further explain aspects of hypnosis which were of interest (see Appendix I).

Because the assessment of hypnotizability required timing, a stopwatch was used in the experiment. In addition, some of the inductions required small objects such as coins and thumbtacks.

Procedure. The 12 subjects selected randomly for the external control group received the standard induction, the hypnotizability scale, and the interest rating scale. When the subjects arrived, they were thanked for volunteering and for completing the forms in class. Each subject received the formal introduction, and following this, received the above procedure. Once this had been completed, the subject was invited to comment, and received the formal debriefing procedure. At no time were subjects provided with their scores on the hypnotizability scale or the EPI. After each subject's questions had been answered, he/she was provided with a voucher, exchangeable for three dollars and fifty cents at the main office of the psychology department, and thanked for his/her participation.

Each of the 48 subjects in the experiment received one of the two hypnosis conditions. Upon arrival, each subject was thanked for volunteering and for completing the forms in class. Each person then received the formal introductory explanation. After this had been presented and the subject had been given a chance to ask questions, the induction procedure was administered. This was either the first series (see Appendix D) or the second series (see Appendix E); depending on the experimental condition to which each subject had been assigned. The first hypnotic induction was followed by the hypnotizability assessment and administration of the interest rating scale. The completion of the interest rating scale was the final stage of the experiment, since all of the scores had been obtained by that point. After this, the subject was provided with the opportunity to express any feelings or thoughts with regard to his/her experience. Subjects were then fully debriefed using the formal debriefing procedure and provided with an opportunity to ask questions. However, they were not told their hypnotizability scores, nor were they told whether they were "extraverts" or "introverts". The subjects then received a cash voucher, exchangeable for three dollars and fifty cents at the main office of the psychology department, and were thanked for their participation in the experiment.

After the entire 48 subjects had completed the experiment, the experimenter matched the hypnotizability

scores with the names of subjects on the assignment list. Only at this final point was the experimenter aware of how the subjects had scored on the EPI. The scores were then analysed statistically.

RESULTS

Analysis of hypnotizability scores.

The first step in the analysis was to compute the means and standard deviations of the hypnotizability scores for each of the experimental groups (see Table 1). The hypnotizability scores of the 48 subjects in the experimental conditions were subjected to a two-way analysis of variance (see Table 2). There was only one significant effect: the mean hypnotizability score for the extraverts was 5.99 and for the introverts was 4.13, $F(1, 44) = 8.87$, $p < .01$.

Analysis of interest ratings.

Again, the first step in this analysis was to compute the means and standard deviations on the interest ratings for each of the experimental groups (see Table 3). The interest ratings for each of the 48 subjects were similarly subjected to a two-way analysis of variance (see Table 4). There was only one significant effect: The mean interest rating for the extraverts was 8.88 and for the introverts

was 8.00, $F = 7.76 (1, 44), p < .01$.

Correlation between hypnotizability and interest.

A Pearson product-moment correlation coefficient was computed for the hypnotizability scores and the interest ratings of the entire sample ($N = 60$). The computed value was $r = .50$, and this was significant at the .001 level.

Comparison of experimental and control conditions.

There were 12 subjects in the control group: The mean extraversion score was 15.67 ($SD = 3.73$). To determine whether or not there were differences between the control group and each of the experimental groups, several t-tests were performed. For both hypnotizability scores and interest ratings, the means of each experimental group were compared individually with the mean hypnotizability scores and interest ratings of the control group. For both dependent variables, the extravert group which received the repeated eye-closure induction had significantly higher scores than the control group (see Table 5 and Table 6).

Subsequent t-tests were performed to determine whether or not differences existed between the control group and the experimental groups when the latter were combined in certain ways. First, the hypnotizability scores for the extraverts were combined, permitting comparisons between the control group and the 24 extraverts, and between the control group

and the 24 introverts. In other words, an index of the difference between extraverts (or introverts) receiving rapid successive inductions and a random group receiving a standard eye-closure induction was obtained. At the same time, the hypnotizability scores for those receiving the varied series were combined in one group and the scores for the repeated eye-closures in another. This allowed the comparison of the standard hypnotic induction and the two types of rapid successive hypnotic inductions. Identical comparisons were made with regard to the interest ratings. The results of these additional analyses yielded significantly higher hypnotizability scores and interest ratings for the combined extravert groups when compared to the control group (see Table 7 and Table 8).

TABLE 1

Means and standard deviations of
hypnotizability scores for the
four experimental groups

	Mean	SD	N
Extraverts/ Induction 1: Varied inductions	5.50	1.91	12
Extraverts/ Induction 2: Repeated eye-closures	6.42	1.44	12
Introverts/ Induction 1: Varied inductions	4.25	2.77	12
Introverts/ Induction 2: Repeated eye-closures	4.00	2.77	12

TABLE 2

Summary of analysis of variance on
hypnotizability scores

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Extraversion (A)	40.333	1	40.333	8.866	p < .01
Induction (B)	1.333	1	1.333	0.293	NS
A x B	4.083	1	4.083	0.898	NS
Error	200.166	44	4.549		
Total	245.916	47	5.232		

TABLE 3

Means and standard deviations of
interest ratings for the
four experimental groups

	Mean	SD	N
Extraverts/ Induction 1: Varied inductions <	8.67	1.07	12
Extraverts/ Induction 2: Repeated eye-closures	9.08	0.52	12
Introverts/ Induction 1: Varied inductions	7.75	1.42	12
Introverts/ Induction 2: Repeated eye-closures	8.25	1.14	12

TABLE 4

Summary of analysis of variance on
interest ratings

<u>Source</u>	<u>SS</u>	<u>df</u>	<u>MS</u>	<u>F</u>	<u>P</u>
Extraversion (A)	9.187	1	9.187	7.762	p < .01
Induction (B)	2.521	1	2.521	2.130	NS
A x B	0.021	1	0.021	0.018	NS
Error	52.083	44	1.184		
Total	63.812	47	1.358		

TABLE 5

Comparisons between the four experimental groups and the control condition for hypnotizability scores

	Experimental group means	Control group mean (N = 12)	Mean difference
Extraverts/ Induction 1 (N = 12)	5.50 (1.91)	4.00 (2.77)	1.50
Extraverts/ Induction 2 (N = 12)	6.42 (1.44)	4.00 (2.77)	2.42*
Introverts/ Induction 1 (N = 12)	4.25 (2.77)	4.00 (2.77)	0.25
Introverts/ Induction 2 (N = 12)	4.00 (2.17)	4.00 (2.77)	0.00

*p < .05

TABLE 6

Comparisons between the four experimental groups and the control condition for interest ratings

	Experimental group means	Control group mean (N = 12)	Mean difference
Extraverts/ Induction 1 (N = 12)	8.67 (1.07)	8.08 (1.38)	0.59
Extraverts/ Induction 2 (N = 12)	9.08 (0.52)	8.08 (1.38)	1.00*
Introverts/ Induction 1 (N = 12)	7.75 (1.42)	8.08 (1.38)	-0.33
Introverts/ Induction 2 (N = 12)	8.25 (1.14)	8.08 (1.38)	0.17

*p < .05

TABLE 7

Comparisons between the combined groups
and the control condition for
hypnotizability scores

	Experimental group means	Control group mean (N = 12)	Mean difference
Introverts (N = 24)	4.13 (2.44)	4.00 (2.77)	0.13
Extraverts (N = 24)	5.96 (1.73)	4.00 (2.77)	1.96*
Induction 1 (N = 24)	4.88 (2.42)	4.00 (2.77)	0.88
Induction 2 (N = 24)	5.21 (2.19)	4.00 (2.77)	1.21

*p < .05

TABLE 8

Comparisons between the combined groups
and the control condition for
interest ratings

	Experimental group means	Control group mean (N = 12)	Mean difference
Introverts (N = 24)	8.00 (1.29)	8.08 (1.38)	-0.08
Extraverts (N = 24)	8.88 (0.85)	8.08 (1.38)	0.80*
Induction 1 (N = 24)	8.21 (1.32)	8.08 (1.38)	0.13
Induction 2 (N = 24)	8.67 (0.96)	8.08 (1.38)	0.59

*p < .05

DISCUSSION

The major hypothesis, that extraversion would interact with the type of hypnotic induction, was not confirmed when the data were subjected to statistical analyses. With regard to both the hypnotizability scores and the interest ratings, the F-tests did not indicate significant interactions between extraversion and induction type. Instead, extraverts demonstrated greater overall hypnotizability and reported a greater degree of interest in the procedures. However, the subsequent analyses of differences between the combined extravert group and the external control group suggest that there was an interaction between the personality variable and the type of hypnotic procedure, even though such an interaction was not apparent on the basis of the preliminary F-tests. The second hypothesis, that interest would correlate with hypnotizability, received substantial support.

Although unanticipated, the finding that extraverts demonstrated greater hypnotizability in response to the fractionation techniques than the introverts did is an important one. These results have not always been obtained by the earlier investigators (for example, Hammar, 1963; Vingoe, 1966a; Rhoades & Edmonston, 1969). This has led most reviewers to conclude that there is no clear relationship between hypnotizability and extraversion. In

experiments conducted by Furneaux and Gibson (1961) the influence of extraversion was shown to be moderated by neuroticism. However, such a finding does not support a direct relationship between hypnotizability and extraversion. The present results suggest that such a relationship emerges depending on the actual method of hypnotic induction.

Lang and Lazovik (1962) noted that extraversion was correlated with hypnotizability. In addition, Hilgard (1970) has observed that "normal-outgoing" individuals are more hypnotizable than "troubled-withdrawn" individuals. This tends to support the possibility that a relationship between hypnotizability and extraversion exists. The hypnotic responsivity of a subject is probably influenced by his/her interest in novel or exciting experiences. Introverted individuals may tend to resist hypnotic suggestions because they do not wish to relinquish control. In addition, hypnotic induction requires a degree of trust on the part of the subject. In this sort of interpersonal situation, one which involves a degree of intimacy, extraverts may have little or no difficulty relaxing and enjoying the experience even though the experimenter is a relative stranger. On the other hand, introverts may have greater difficulty.

Working within the framework of Eysenck's (1960)

theory of extraversion, it would be expected that extraverts are more hypnotizable. Hypnotic responsivity would be greater for individuals who "crave excitement", "take chances", "act on the spur of the moment", and enjoy interpersonal encounter. However, responsivity would be far less pronounced for those subjects who are "reserved and reticent", "distrusting of the impulse of the moment", and who do not like "excitement". In this sense, both the sociability and impulsiveness factors of extraversion are integral components of a relationship between extraversion and hypnotic responsivity.

The correlation between interest and hypnotizability and the results of the comparisons with the control group indicate that extraverts did find the fractionation approach more interesting than the introverts did. This would support the above argument, because interest is likely to enhance attention, and also because extraverts will show greater interest in situations where they must take chances and have the opportunity to act on the impulse of the moment.

The major hypothesized interaction between extraversion and type of induction was not found within the four experimental groups. There are several possible reasons for this. The first was the manipulation itself. While the earlier experiments subjected each individual to two

induction sessions, the present experiment used only one session. Since the interactions in the earlier studies were obtained partly as a function of the subject's receiving two distinct sessions, whereas the present design only provided a single administration, it is possible to conclude that more than one session may be needed to create substantial boredom or monotony for the extraverts. In a similar manner, to enhance the comfort and trust of the introverts, a second administration may be necessary. As it evolved, the present results were probably influenced by the novelty of the experience. Simply phrased, the duration of the manipulation may have been too brief to achieve successful manipulation of the independent variable. Boredom and excitement were not established, and this would have been necessary to produce the predicted person by situation interaction.

In fact, the two inductions were not rated differently by extraverts and introverts; therefore, it can be suggested that the development of "interesting" situations requires empirical assessment as opposed to the intuitive approach used in the present experiment. The fact that the two inductions had basically the same effects may mean that they did not differ in regard to the independent variable; alternatively, it may reflect such aspects of the design as the length of the experimental session, the time between sessions, and the number of sessions involved.

The second possible reason for the hypothesized interaction's not appearing lies in the modification to the design, that is, the employment of a between-subjects procedure rather than a within-subjects procedure. A within-subjects procedure would be far more sensitive to subtle changes in hypnotizability across induction situations. It may have been useful to conduct a preliminary experiment to test this. The earlier experiments (for example, Preston, Note 1) used within-subjects procedures to assess the interaction between group and individual inductions, and significant interactions were obtained. It is possible that such result would not have been noted if between-subjects designs had been used. The present hypothesis requires a further test, one which uses the "own-control" approach.

Comparisons between the experimental conditions and the control group suggested that the most hypnotizable and most interested group was the extravert group which received the second induction series (repeated eye-closures). The others did not differ significantly from the control group. This suggests that for the most part, the experimental inductions were not different in their capacity to induce hypnosis.

In addition, these comparisons identified important differences which are indicative of an interaction, one which was not initially anticipated. On both of the

dependent variables, extraverts had higher scores than the subjects who comprised the external control group (those chosen at random). The introverts did not demonstrate this difference in their responses. Moreover, the statistical analyses did not indicate significant differences between the experimental inductions and the control procedure. Therefore, it can be concluded that extraverts are more responsive to fractionation techniques than introverts. There is no difference between the hypnotizability of the introverts in response to fractionation and a random group receiving a standard eye-closure induction. On the other hand, the response of the extraverts to fractionation is superior. Consequently, the findings of this experiment reveal an important interaction, one in which the method of induction (rapid successive induction versus standard induction) differentiates extraverts and introverts.

With regard to models of personality and hypnotizability, the present findings support the notion that personality plays a role in the initial hypnotizability of a person. If the experiment did not satisfactorily manipulate the independent situational variable, it would not constitute a true test of the interactional model. There is still a strong possibility that responsivity depends on the interaction between organismic and situational variables. However, it is for future experimentation to replicate the finding that extraverts

demonstrate greater hypnotizability than introverts when exposed to fractionation techniques of hypnosis.

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Appendix A

Instruction and volunteer form

INSTRUCTIONS

Please complete the form which is attached to this sheet. Answer each item on the back of the form by entering a mark in the space under the column headed "Yes" or "No".

Please read the instructions on the form before you respond. You do not need to enter your name.

All of your answers will be held in strictest confidence. You are being asked to complete the form for research purposes only.

Members of the Department of Psychology are currently engaged in research on hypnosis, and we are looking for participants. If you are willing to volunteer for a half-hour experiment, please indicate this in the space below and provide your name and telephone number. All volunteers receive \$3.50 for their participation.

- Yes, I am interested.
(Provide information below)

Name

Telephone number

- No, I am not interested.

Thank-you for your cooperation.

Appendix B

Instructions to students

INSTRUCTIONS TO STUDENTS

Before distribution of materials, the experimenter is introduced.

MEMBERS OF THE DEPARTMENT OF PSYCHOLOGY ARE CURRENTLY ENGAGED IN RESEARCH ON DIFFERENT ASPECTS OF PERSONALITY. WE WOULD APPRECIATE YOUR ASSISTANCE IF YOU WOULD COMPLETE THE FORMS WHICH YOU ARE ABOUT TO RECEIVE.

At this time, every student receives the instruction form and the Eysenck Personality Inventory, Form A.

PLEASE READ ALL OF THE INSTRUCTIONS. YOU ARE ASKED TO RESPOND TO THE ITEMS ON THE BACK OF THE ATTACHED FORM BY ENTERING MARKS FOR "YES" OR "NO". PLEASE INCLUDE YOUR SEX AND YOUR AGE. ALL RESPONSES ARE CONFIDENTIAL, AND YOU DO NOT NEED TO ENTER YOUR NAME.

Allow a few moments for students to read the instructions.

IN ADDITION TO GATHERING THIS INFORMATION, WE ARE ALSO HOPING TO ATTRACT VOLUNTEERS FOR HYPNOSIS EXPERIMENTS WHICH ARE BEING CONDUCTED BY MEMBERS OF THE DEPARTMENT OF PSYCHOLOGY. ALL VOLUNTEERS RECEIVE \$3.50 FOR THEIR PARTICIPATION IN A HALF-HOUR EXPERIMENT. IF ANY OF YOU ARE INTERESTED, PLEASE PROVIDE YOUR NAMES AND TELEPHONE NUMBERS SO THAT WE WILL BE ABLE TO CONTACT YOU.

I WISH TO STRESS THAT NONE OF THE HYPNOSIS EXPERIMENTS BEING CONDUCTED CREATES ANY DISCOMFORT OR EMBARRASSMENT. HYPNOSIS IS A STATE OF DEEP RELAXATION, WHICH MOST PEOPLE FIND INTERESTING AND ENJOYABLE. OUR RESEARCH INVOLVES ONLY THE ASSESSMENT OF HYPNOTIC SUSCEPTIBILITY, AND SUBJECTS IN THESE EXPERIMENTS ARE NOT REQUIRED TO ENGAGE IN ANY UNUSUAL KINDS OF BEHAVIOURS. ARE THERE ANY QUESTIONS?

Answer any questions asked. If questions concerning the present experiment are asked, they should be answered only after all of the forms have been completed and returned. However, it may be necessary to further explain hypnosis.

IF THERE ARE NO [MORE] QUESTIONS, PLEASE SPEND THE NEXT FEW MINUTES COMPLETING THE FORMS, AND RETURN THEM TO ME WHEN YOU ARE FINISHED.

Allow five to ten minutes for completion.

THANK-YOU VERY MUCH FOR TAKING THE TIME TO ASSIST US. THOSE OF YOU WHO HAVE INDICATED YOUR WILLINGNESS TO PARTICIPATE IN A HYPNOSIS EXPERIMENT WILL BE CONTACTED WITHIN THE NEXT WEEK.

Debrief students as follows.

THE ATTACHED FORM IS A SCALE WHICH MEASURES TWO PERSONALITY TRAITS, —NEUROTICISM AND EXTRAVERSION. IT IS THE SECOND OF THESE WHICH IS OF PARTICULAR INTEREST TO US. SPECIFICALLY, WE ARE INTERESTED IN THE RELATIONSHIPS BETWEEN PERSONALITY CHARACTERISTICS AND HYPNOTIC SUSCEPTIBILITY. WE WILL ONLY BE CONSIDERING THE FORMS OF THOSE WHO VOLUNTEERED FOR A HYPNOSIS EXPERIMENT. ARE THERE ANY QUESTIONS?

Answer any questions asked. If questions concern specific hypotheses, the students are told that such explanation can affect the outcome of the experiment and that such questions can be answered only after completion of the experiment presently being conducted.

PLEASE FEEL FREE TO CONTACT US IF YOU HAVE ANY FURTHER QUESTIONS. AGAIN, THANK-YOU FOR TAKING THE TIME TO COMPLETE THE FORMS. YOUR COOPERATION IS GREATLY APPRECIATED.

Appendix C

Experimental instructions:

Introduction

EXPERIMENTAL INSTRUCTIONS: INTRODUCTION

This introduction assumes that the subject has already volunteered for the hypnosis experiment. The following remarks should flow naturally, and every effort should be made to establish rapport with the subject and to make him/her feel comfortable. The subject is seated in the chair in which he/she will be hypnotized, and the experimenter is seated on a chair next to him/her.

BEFORE WE BEGIN, LET'S CHAT FOR A FEW MINUTES. I WANT YOU TO FEEL AT EASE AND IF YOU HAVE ANY QUESTIONS, I WILL ANSWER THEM FOR YOU NOW. MOST OF THE PEOPLE IN THIS EXPERIMENT WILL NOT HAVE BEEN HYPNOTIZED BEFORE. HOW ABOUT YOU?

Note the details of any prior experiences, although the subject is not likely to have had any earlier exposure to hypnosis. If the subject has come with a number of misconceptions, these should be considered and clarified.

MANY OF THE PEOPLE IN THESE EXPERIMENTS HAVE NEVER HAD ANY HYPNOTIC EXPERIENCES, AND OFTEN THEY FEEL A BIT UNEASY AT FIRST BECAUSE THEY DO NOT KNOW WHAT THE EXPERIENCE WILL BE LIKE. OR SOMETIMES, THEY HAVE DISTORTED IDEAS ABOUT HYPNOSIS. IT IS NATURAL TO BE CURIOUS ABOUT, NEW EXPERIENCES. ANY CURIOSITY THAT YOU MIGHT HAVE WILL BE SATISFIED BEFORE WE ARE THROUGH, BUT YOU CAN GET ALL THE ANSWERS YOU WANT BY JUST LETTING YOURSELF BE A PART OF WHAT GOES ON, AND BY NOT WATCHING THE PROCESS IN DETAIL.

LET ME REASSURE YOU ON A FEW POINTS.

FIRST OF ALL, THE EXPERIENCE, WHILE A BIT UNUSUAL, MAY NOT SEEM THAT DIFFERENT FROM ORDINARY EXPERIENCE AS YOU MAY HAVE BEEN LED TO EXPECT. HYPNOSIS IS LARGELY A QUESTION OF YOUR WILLINGNESS TO BE RECEPTIVE AND RESPONSIVE TO IDEAS, AND TO ALLOW THESE IDEAS TO ACT ON YOU WITHOUT INTERFERENCE. THESE IDEAS ARE CALLED SUGGESTIONS.

SECOND, YOU WILL NOT BE ASKED TO DO ANYTHING THAT WILL MAKE YOU LOOK SILLY OR STUPID, OR THAT WILL PROVE EMBARRASSING TO YOU. WE ARE HERE FOR SERIOUS SCIENTIFIC PURPOSES.

THIRD, AND FINALLY, I WILL NOT PROBE INTO ANY PRIVATE OR PERSONAL AFFAIRS, SO THAT THERE WILL BE NOTHING PERSONAL ABOUT WHAT YOU ARE TO DO OR SAY DURING YOUR HYPNOTIC EXPERIENCE.

HAVE YOU ANY QUESTIONS THAT YOU WOULD LIKE TO ASK?

Answer any questions asked, preferably by paraphrasing the above points.

YOU MAY BE WONDERING WHY WE ARE DOING THESE KINDS OF EXPERIMENTS. HYPNOSIS IS BEING USED MORE AND MORE BY A WHOLE HOST OF MEDICAL PROFESSIONALS. FOR EXAMPLE, THERE ARE DENTISTS WHO ARE USING HYPNOSIS TO RELIEVE PAIN, OBSTETRICIANS TO MAKE CHILDBIRTH EASIER, AND MANY PSYCHOLOGISTS ARE USING HYPNOSIS TO HELP PEOPLE REDUCE ANXIETY. IF WE CAN UNDERSTAND THE PROCESSES INVOLVED, WE WILL KNOW MORE ABOUT THE RELATIONSHIP BETWEEN IDEAS AND ACTION, MORE ABOUT THE WAY IN WHICH PERSONALITY OPERATES. WHEN YOU FIRST VOLUNTEERED FOR THIS EXPERIMENT, YOU COMPLETED A PERSONALITY SCALE, AND THIS INFORMATION WILL BE IMPORTANT BECAUSE WE ARE INTERESTED IN THE RELATIONSHIPS BETWEEN ASPECTS OF PERSONALITY AND HYPNOSIS. SO IN PARTICIPATING HERE, YOU ARE CONTRIBUTING TO SCIENTIFIC KNOWLEDGE OF A KIND THAT CAN BE USED TO HELP OTHER HUMAN BEINGS. WE ARE TRYING HERE MERELY TO UNDERSTAND HYPNOTISM. PROBABLY ALL PEOPLE CAN BE HYPNOTIZED, BUT SOME ARE MUCH MORE READILY HYPNOTIZED THAN OTHERS, EVEN WHEN EACH OF THEM COOPERATES. WE ARE STUDYING SOME OF THESE DIFFERENCES AMONG PEOPLE.

HAVE YOU ANY OTHER QUESTIONS OR COMMENTS BEFORE WE GO AHEAD?

Answer any questions asked, preferably by paraphrasing what has already been discussed.

IF YOU HAVE NO [MORE] QUESTIONS WE WILL GET STARTED. YOU WILL BE RECEIVING A HYPNOTIC INDUCTION, AND I WOULD LIKE YOU TO ATTEND VERY CLOSELY TO EACH OF MY INSTRUCTIONS. AFTER WE HAVE FINISHED THE SESSION, I WILL DO MY BEST TO ANSWER ANY QUESTIONS YOU MIGHT HAVE.

Appendix D

Hypnotic induction:

Series one

HYPNOTIC INDUCTION: SERIES ONE

The following instructions assume that the subject and the experimenter have conversed, and that a level of rapport has been established.

I. POSTURAL SWAY
(Time: 3'30")

TO BEGIN, I WANT YOU TO EXPERIENCE WHAT IT FEELS LIKE TO BE HYPNOTIZED AND RESPOND TO SUGGESTIONS.

The experimenter should begin to stand up and move to whatever position he/she will have when conducting the sway induction.

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/she wants the subject to stand, which should be about a foot away directly in front of him/her. The subject should be standing as close to the chair as possible for this induction, because he/she will eventually sit down with his/her eyes closed. Should subjects be wearing high-heel shoes, they 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. I WOULD LIKE YOU TO LISTEN VERY CAREFULLY TO EVERYTHING THAT I TELL YOU IN THE NEXT FEW MINUTES.

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

NOW, PLEASE CLOSE YOUR EYES AND RELAX, JUST RELAX.

Allow thirty seconds to pass and note the amount of ataxic movement which is present.

At the end of this period, the instructions are 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 it first occurred. If the subject falls outright, the suggestions end then and there: go directly to the final section.

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 A MOVEMENT. YOU WILL FIND YOURSELF ACTUALLY SWAYING BACKWARD, MORE AND MORE BACKWARD, UNTIL YOU WILL SWAY SO FAR THAT YOU WILL 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. IN FACT, I WILL HELP YOU TO SIT DOWN IN THE CHAIR SO THAT YOU CANNOT FALL VERY FAR. PLEASE KEEP YOUR EYES TIGHTLY CLOSED FOR THE WHOLE TIME, AND REMEMBER, I AM RIGHT HERE AND I PROMISE NOT TO LET YOU FALL. HERE... LET ME SHOW YOU HOW IT WILL BE.

Grasp the subject by the shoulders and gently but firmly pull him/her backward until he/she falls. By a "fall" is meant only a loss of balance: the experimenter catches the subject before he/she 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 experimenter. Then slowly seat the subject in a gentle manner in the chair. Once it is clear to the subject where he/she will fall, stand the subject up very gradually and continue. Should the subject show any resistance to falling, point this out to him/her and caution against resisting in this manner. If at any point in the instructions the subject falls, seat him/her gradually and go to the instructions in the final section.

ALL RIGHT... LISTEN CAREFULLY TO WHAT I SAY AND BEGIN TO THINK OF SWAYING BACKWARD. YOU ARE SOON GOING TO START SWAYING BACKWARD. YOU ARE GOING TO SWAY MORE AND MORE BACKWARD, MORE AND MORE BACKWARD.

YOU ARE NOW BEGINNING TO SWAY BACKWARD. YOU ARE SWAYING BACKWARD. MORE AND MORE BACKWARD. YOU ARE SWAYING BACKWARD. YOU ARE SWAYING BACKWARD. YOU ARE SWAYING MORE AND MORE BACKWARD. YOU ARE GOING BACKWARD, BACKWARD.

YOU ARE FALLING BACKWARD, SWAYING BACKWARD, FALLING BACKWARD, SWAYING BACKWARD, FALLING BACKWARD, FALLING BACKWARD, FALLING BACKWARD, BACKWARD... YOU ARE FALLING, FALLING, FALLING... FALL!

(If no fall occurs, grasp the subject by the shoulders and carefully seat him/her in the chair while saying the following:) ALLOW YOURSELF TO FALL INTO THE CHAIR BEHIND YOU. THAT'S FINE. NOW YOU SEE HOW THINKING ABOUT A MOVEMENT PRODUCES A TENDENCY TO MAKE THE MOVEMENT. AS YOU SIT COMFORTABLE, RELAX... JUST RELAX. (After the fall, slowly sit the subject in the chair:) GOOD; YOU KNOW WHAT IT FEELS LIKE TO ACCEPT AND ACT UPON SUGGESTIONS. AS YOU SIT COMFORTABLY, RELAX... JUST RELAX.

Final Section. While the subject is seated with his/her eyes closed, the experimenter should be seated next to him/her. The following instructions should be read in a relatively uniform tone with moderate volume, as were the preceding instructions.

JUST RELAX. I WOULD LIKE YOU TO TAKE A DEEP BREATH... FILL

YOUR LUNGS COMPLETELY, AND THEN EXHALE SLOWLY... THAT'S RIGHT. TAKE ANOTHER DEEP, DEEP BREATH OF AIR. AS YOU BREATHE DEEPLY, YOU BECOME VERY RELAXED, VERY RELAXED. THAT'S RIGHT. MORE AND MORE... DEEPLY RELAXED. YOUR WHOLE BODY HAS BECOME VERY RELAXED.

Allow ten seconds to pass.

At the end of this period, begin dehypnotization, speaking very softly and at a moderate volume.

NOW YOU HAVE BECOME VERY RELAXED. IN A FEW MOMENTS, I WILL TELL YOU TO OPEN YOUR EYES. I WILL BEGIN COUNTING FROM TEN AND AT "THREE" YOU WILL OPEN YOUR EYES. YOU WILL OPEN YOUR EYES AT "THREE" AND BY THE TIME I REACH "ONE" YOU WILL BE FULLY AWAKE AND ALERT. READY: 10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3! OPEN YOUR EYES... 2 -- 1. YOU ARE NOW AWAKE, WIDE AWAKE AND ALERT. (If the subject does not appear to fully alert, continue:) THAT'S RIGHT WIDE AWAKE, JUST AS BEFORE! WIDE AWAKE AND COMPLETELY ALERT!

When the subject is completely alert, allow him/her to comment very briefly.

2. COIN DROP
(Time: 2 minutes)

At this point, both the subject and the experimenter are seated. (experimenter on the left hand side of the subject). For this induction, a coin is held in the left hand of the subject until dropped to the floor.

I WOULD LIKE TO SHOW YOU SOMETHING INTERESTING. IT IS A WAY OF BECOMING VERY RELAXED, BUT NOT THE SAME WAY AS BEFORE. ALL THAT YOU HAVE TO DO IS TO LOOK AT YOUR THUMB AND KEEP YOUR ARM STRETCHED OUT AT EYE LEVEL. THERE ARE ONLY TWO THINGS THAT YOU HAVE TO DO HERE TO GO INTO A DEEP STATE OF RELAXATION. THERE ARE MANY INTERESTING WAYS TO BECOME HYPNOTIZED, AND THIS METHOD IS ONE OF THESE. ALL YOU HAVE TO DO IS TO KEEP STARING AT YOUR THUMB. REMEMBER, THERE ARE ONLY TWO THINGS THAT YOU HAVE TO REMEMBER. WHEN I COUNT TO 3, OPEN YOUR FIST AND THEN CLOSE YOUR EYES. DO THESE SIMULTANEOUSLY! REMEMBER THAT! WHEN I COUNT TO 3, OPEN YOUR FIST AND CLOSE YOUR EYES SIMULTANEOUSLY. THESE ARE THE ONLY TWO THINGS THAT YOU HAVE TO REMEMBER. AND WHEN YOU HEAR THE COIN DROP AND HIT THE FLOOR, LET THAT BE THE SIGNAL THAT YOU CAN'T OPEN YOUR EYES. (It may be helpful to have the subject rehearse the actions and hear how the coin will sound when it actually hits the ground.) NOW REMEMBER, IF YOU WOULD REALLY LIKE TO EXPERIENCE A NICE, DEEP, SOOTHING, REFRESHING STATE OF RELAXATION, THERE ARE ONLY TWO THINGS THAT YOU HAVE TO DO. SIMULTANEOUSLY, AT THE COUNT OF THREE, YOU OPEN YOUR FIST AND CLOSE YOUR EYES. 1... REMEMBER, THERE ARE TWO THINGS YOU ARE GOING TO DO... 2... 3... (If

the subject does not drop the coin, count from 1 to 3 a second time, and if the subject has not dropped the coin at that point, direct him/her to do so and to close his/her eyes.) STRAIGHTEN OUT THE FINGERS, STIFF AND RIGID, STIFF AND RIGID LIKE AN IRON BAR. AND AS THEY STIFFEN, YOU BECOME DEEPER AND DEEPER RELAXED, WAY DOWN, DEEPER, AND DEEPER RELAXED!

Allow ten seconds to pass, and then continue:

SLOWLY PLACE YOUR LEFT ARM AT YOUR SIDE, AS YOU LOWER YOUR HAND, YOU WILL FEEL MORE DEEPLY RELAXED. ALLOW YOUR HAND TO RELAX AT YOUR SIDE. JUST RELAX. AND IN A MOMENT, I WILL COUNT FROM TEN, AS BEFORE, AND WHEN YOU HEAR "THREE", YOU WILL OPEN YOUR EYES. AT "ONE" YOU WILL BE TOTALLY ALERT... 10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1. YOU ARE NOW COMPLETELY AWAKE.

When the subject is awake, allow him/her to comment briefly.

3. EYE CLOSURE - SPIEGEL TECHNIQUE (Time: 8'30")

The subject is seated for this induction. The manner and tone of the experimenter's voice should be gentle and matter-of-fact.

PLEASE GET AS COMFORTABLE AS POSSIBLE, WITH YOUR ARMS RESTING ON THE ARM OF THE CHAIR.

The experimenter touches the subject's left arm by placing it on the arm of the chair gently but firmly.

NOW LOOK TOWARD ME. AS YOU HOLD YOUR HEAD IN THAT POSITION, LOOK UP TOWARD YOUR EYEBROWS. THAT'S IT. TOWARD YOUR EYEBROWS -- NOW, TOWARD THE TOP OF YOUR HEAD.

The subject should be on an equal level with the experimenter.

AS YOU CONTINUE TO LOOK UPWARD, CLOSE YOUR EYELIDS SLOWLY. THAT'S RIGHT... CLOSE. CLOSE. CLOSE. CLOSE. KEEP YOUR EYELIDS CLOSED AND CONTINUE TO HOLD YOUR EYES UPWARD. TAKE A DEEP BREATH, HOLD... NOW, EXHALE, LET YOUR EYES RELAX WHILE KEEPING THE LIDS CLOSED, AND LET YOUR BODY FLOAT. IMAGINE A FEELING OF FLOATING, FLOATING RIGHT DOWN THROUGH THE CHAIR... THERE WILL BE SOMETHING PLEASANT AND WELCOME ABOUT THIS SENSATION OF FLOATING. AS YOU CONCENTRATE ON THIS FLOATING, I AM GOING TO CONCENTRATE ON YOUR LEFT ARM AND HAND.

The experimenter gradually places his/her hand on the subject's wrist to indicate that touch will be used in the next instruction. It is important not to startle the

subject.

IN A WHILE, I AM GOING TO STROKE THE MIDDLE FINGER OF YOUR LEFT HAND. AFTER I DO, YOU WILL DEVELOP MOVEMENT SENSATIONS IN THAT FINGER. THEN THE MOVEMENTS WILL SPREAD, CAUSING YOUR LEFT HAND TO FEEL LIGHT AND BUOYANT, AND YOU WILL LET IT FLOAT UPWARD. READY?

The experimenter moves his/her hand from the subject's wrist and strokes the middle finger of the left hand, beginning at the finger nail and moving along the back of the hand and then up along the forearm until he/she reaches the subject's elbow.

(If there is an immediate response:) NOW I AM GOING TO POSITION YOUR ARM IN THIS MANNER, LIKE SO.... AND LET IT REMAIN IN THIS UPRIGHT POSITION.

(If there is no immediate movement:) FIRST ONE FINGER, THEN ANOTHER. AS THESE RESTLESS MOVEMENTS DEVELOP, YOUR HAND BECOMES LIGHT AND BUOYANT, YOUR ELBOW BENDS, YOUR FOREARM FLOATS INTO AN UPRIGHT POSITION. (Experimenter encircles the subject's wrist with his/her thumb and forefinger, and gives arm a little lift.)

(If arm does not move:) LET YOUR HAND BE A BALLOON. JUST LET IT GO. YOU HAVE THE POWER TO LET IT FLOAT UPWARD. THAT'S RIGHT! HELP IT ALONG! JUST PUT IT UP THERE. (When the forearm reaches the upright position:) NOW I AM GOING TO POSITION YOUR ARM IN THIS MANNER, LIKE SO.... AND LET IT REMAIN IN THIS UPRIGHT POSITION.

(If arm moves into position:) NOW I AM GOING TO POSITION YOUR ARM IN THIS MANNER, LIKE SO.... AND LET IT REMAIN IN THIS UPRIGHT POSITION.

The experimenter gently cups the subject's elbow with both hands, positioning it in careful alignment with the chair arm and flexing the hand forward.

IN FACT, IT WILL REMAIN IN THAT POSITION EVEN AFTER I GIVE YOU THE SIGNAL FOR YOUR EYES TO OPEN. WHEN YOUR EYES ARE OPEN, EVEN WHEN I PUT YOUR HAND DOWN, IT WILL FLOAT RIGHT BACK UP TO WHERE IT IS NOW. YOU WILL FIND SOMETHING AMUSING ABOUT THIS SENSATION. LATER, WHEN I TOUCH YOUR LEFT ELBOW, YOUR USUAL SENSATION AND CONTROL WILL RETURN. AND WHEN I TOUCH YOUR ELBOW, IT WILL ALSO BE A SIGNAL FOR YOU TO BECOME VERY RELAXED, AS BEFORE. WHEN I TOUCH YOUR ELBOW, ON THE COUNT OF ONE YOUR EYES WILL ROLL UPWARD AND BY THE COUNT OF THREE, YOUR EYELIDS WILL CLOSE AND YOU WILL FEEL DEEPLY RELAXED, VERY COMFORTABLY RELAXED. NOW, I AM GOING TO COUNT BACKWARDS. AT TWO, YOUR EYES WILL AGAIN ROLL UPWARD WITH YOUR EYELIDS CLOSED. AT ONE, LET THEM OPEN VERY SLOWLY. READY... THREE... TWO... WITH YOUR EYELIDS CLOSED, ROLL UP YOUR EYES... AND ONE, LET THEM OPEN SLOWLY. ALL RIGHT.

STAY IN THIS POSITION AND DESCRIBE ANY PHYSICAL SENSATIONS THAT YOU ARE AWARE OF NOW IN YOUR LEFT HAND.

Allow subject to comment.

NOW WATCH THIS.

The experimenter takes the subject's left hand in his/her own, touches the palm of the hand, and gently lowers it until it rests on the arm of the chair.

NOW LOOK AT YOUR LEFT HAND, AND WATCH WHAT IS GOING TO HAPPEN. WHILE CONCENTRATING ON YOUR HAND, IMAGINE THAT IT IS A HUGE BUOYANT BALLOON. THAT'S RIGHT. AND AS YOU IMAGINE THAT IT IS A BIG HUGE BALLOON, LET YOUR HAND ACT IT OUT. PERMIT IT TO ACT AS IF IT WERE A BALLOON.

(If there is movement:) THAT'S RIGHT, JUST PUT IT UP THERE, LET IT BE A BIG BALLOON.

(If there is no movement:) IF YOU LIKE, YOU CAN PRETEND. IF IT ISN'T ACTING LIKE A BALLOON, HELP IT ALONG... PRETEND THAT IT IS A BALLOON.

DESCRIBE HOW IT FEELS, IF YOU LIKE.

Allow the subject to comment briefly.

ALL RIGHT, NOW LISTEN CAREFULLY. (The experimenter touches the subject's elbow) AS I TOUCH YOUR ELBOW, I WANT YOU TO BECOME DEEPLY RELAXED ONCE AGAIN. I WILL NOW BEGIN TO COUNT. ONE... (If the subject has not rolled up his/her eyes, instruct him/her to do so) TWO... THREE. (If the subject's eyes are not closed, instruct him/her to close them) THAT'S IT. NOW RELAX... JUST RELAX. YOU ARE NOW VERY COMFORTABLY RELAXED, AND AS YOU LISTEN TO MY VOICE, YOU WILL BECOME MORE AND MORE RELAXED, MORE AND MORE DEEPLY RELAXED.

YOU ARE COMFORTABLY RELAXED, BUT YOU ARE GOING TO RELAX MUCH MORE. YOUR EYES ARE NOW CLOSED. KEEP YOUR EYES CLOSED UNTIL I TELL YOU TO OPEN THEM OR WAKE UP.

If eyes should reopen, instruct subject to close them.

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 ALL RIGHT... JUST BRING YOUR ATTENTION BACK TO IT. AFTER A WHILE YOU MAY FIND THAT MY VOICE SEEMS TO BECOME FAINT OR REcede FROM YOU, OR AGAIN CHANGES IN QUALITY. THAT IS ALL RIGHT. SHOULD YOU GET SLEEPY, 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.

YOU ARE RELAXED, VERY RELAXED. THERE IS A PLEASANT FEELING OF WARMTH 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 WARM, COMFORTABLE STATE, THIS DEEP STATE OF RELAXATION. RELAX, RELAX... DEEPLY RELAXED. DEEPER AND DEEPER ALL THE TIME.

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 THAT 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 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.

This ends the induction series.

Appendix E

Hypnotic induction:

Series two

HYPNOTIC INDUCTION: SERIES TWO

The following instructions assume that the subject and the experimenter have conversed, and that a level of rapport has been established. Both the experimenter and the subject are seated throughout the entire procedure. All instructions are read verbatim, at a moderately low volume.

1. EYE CLOSURE - SPOT ON CEILING
(Time: 4 minutes)

AS YOU SIT COMFORTABLY IN THE CHAIR, I WOULD LIKE YOU TO LOOK UPWARD AT A SPOT ON THE CEILING. ONCE YOU HAVE CHOSEN A SPOT, I WOULD LIKE YOU TO KEEP YOUR EYES ON IT. DO NOT LOOK AT ANYTHING ELSE, JUST STARE AT THE SPOT.

Pause briefly while the subject chooses a spot.

DO NOT WORRY IF YOUR EYES STRAY AWAY OR YOU BLINK. THAT IS ALL RIGHT. IF THIS HAPPENS, JUST BRING YOUR EYES RIGHT BACK TO THE SPOT AND KEEP LOOKING AT IT AS STEADILY AS YOU CAN. DON'T BE TENSE. JUST RELAX AND LISTEN CLOSELY TO MY VOICE, TO WHAT I SAY. I WANT YOU TO RELAX... THINK OF RELAXING. FEEL YOUR BODY RELAXING... AS YOU DO SO, YOU WILL FIND THAT YOUR BODY BECOMES RELAXED... YOU WILL RELAX MORE AND MORE. AS YOU KEEP LOOKING AT THE SPOT ABOVE YOUR HEAD AND LISTEN TO MY VOICE, YOU WILL FIND THAT YOUR ENTIRE BODY BECOMES RELAXED, YOUR ARMS AND YOUR HANDS ARE BECOMING RELAXED, YOUR ENTIRE BODY IS BECOMING RELAXED, AND NOW YOU WILL FIND THAT YOU ARE BECOMING DROWSY. YOU ARE GOING TO GET MORE AND MORE DROWSY. JUST LISTEN TO MY VOICE... IT MAKES YOU FEEL DROWSY, SLEEPY... YOU FEEL A HEAVINESS COMING OVER YOUR BODY, YOUR BODY IS GETTING HEAVY, VERY HEAVY. YOUR HANDS ARE GETTING HEAVY. YOUR ARMS ARE BECOMING HEAVY. YOUR ARMS AND YOUR HANDS ARE HEAVY. YOUR FEET ARE GETTING HEAVY. YOUR LEGS ARE GETTING HEAVY. YOUR ENTIRE BODY IS BECOMING V-E-R-Y H-E-A-V-Y. YOU ARE D-R-O-W-S-Y... YOU ARE S-L-E-E-P-Y. A FEELING OF PLEASANT, DROWSY WARMTH IS COMING OVER YOU. SOON YOU ARE GOING TO SLEEP... DEEPLY... SOUNDLY... A PLEASANT WARMTH IS COMING ALL OVER YOUR BODY, JUST LIKE WHEN YOU FALL ASLEEP.

YOUR EYELIDS ARE GETTING HEAVY. YOU ARE BECOMING SLEEPY. YOUR EYELIDS ARE GETTING HEAVIER AND H-E-A-V-I-E-R, S-O HEAVY AND YOU ARE FEELING S-O S-L-E-E-P-Y... THINK OF SLEEP, NOTHING BUT SLEEP... YOUR EYELIDS ARE HEAVY, THEY ARE CLOSING. YOU CANNOT KEEP YOUR EYES OPEN. THEY ARE CLOSING. IN A MOMENT, YOU WILL FIND IT IMPOSSIBLE TO KEEP YOUR EYES OPEN... THEY WILL BLINK FROM TIME TO TIME. THEY WILL BLINK MORE AND MORE, AND SHORTLY THEY WILL CLOSE BECAUSE THEY ARE GETTING HEAVIER AND HEAVIER. AS YOUR EYELIDS BECOME HEAVIER AND HEAVIER, YOU WILL FIND IT HARDER AND HARDER TO KEEP YOUR EYES OPEN.

(If eyes have not closed:) YOU ARE NOW VERY SLEEPY, V-E-R-Y S-L-E-E-P-Y... YOUR EYELIDS ARE SO HEAVY THAT YOU CANNOT KEEP THEM OPEN ANY LONGER, THEY ARE CLOSING, CLOSING MORE AND MORE. CLOSE YOUR EYES. CLOSE. CLOSE. THAT'S FINE. EYES CLOSED. EYES COMPLETELY CLOSED.

(When eyes are closed:) YOUR EYES ARE NOW COMPLETELY CLOSED, COMPLETELY CLOSED. KEEP YOUR EYES COMPLETELY CLOSED AND LISTEN TO ME.

YOU ARE FEELING RESTFUL AND SLEEPY. YOU ARE VERY, V-E-R-Y SLEEPY, AND YOU ARE LISTENING SLEEPILY TO MY VOICE. FEEL HOW RELAXED YOU HAVE BECOME, FEEL HOW RELAXED YOUR WHOLE BODY HAS BECOME. NOTE HOW PLEASANT, HOW WARM, HOW COMPLETELY COMFORTABLE YOU HAVE BECOME. /

Allow ten seconds to pass.

At the end of this period, begin dehypnotization, speaking very softly and at a moderate volume.

IN A FEW MOMENTS, I WILL TELL YOU TO OPEN YOUR EYES. I WILL BEGIN COUNTING FROM TEN AND AT "THREE" YOU WILL OPEN YOUR EYES. YOU WILL OPEN YOUR EYES AT "THREE" AND BY THE TIME I REACH "ONE" YOU WILL BE FULLY AWAKE AND ALERT. READY, 10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3! OPEN YOUR EYES... 2 -- 1. YOUR ARE NOW AWAKE, WIDE AWAKE AND ALERT. (If the subject does not appear to fully alert, continue:) THAT'S RIGHT WIDE AWAKE, JUST AS BEFORE! WIDE AWAKE AND COMPLETELY ALERT!

When the subject is completely alert, allow him/her to comment very briefly.

2. EYE CLOSURE - SPOT ON HAND (Time: 3 minutes)

Both the experimenter and the subject are seated as before. The instructions should be read in the same manner as those in the previous section.

PLEASE FOLD YOUR HANDS AND PLACE THEM IN YOUR LAP. AS YOU SIT COMFORTABLY, WITH YOUR HEAD FACING THE WALL IN FRONT OF YOU, I WOULD LIKE YOU TO LOOK DOWNWARD WITHOUT MOVING YOUR HEAD. I WOULD LIKE YOU TO PICK OUT A SPOT ON YOUR HAND AND STARE AT IT AS STEADILY AS POSSIBLE. THAT'S RIGHT. LOOK AT YOUR HAND AND FIND A SPOT.

LOOK VERY CAREFULLY AT THIS SPOT. NOTICE THE COLOUR OF THE SPOT AND STARE CLOSELY AT EACH LITTLE LINE IN THE SPOT. AS YOU GAZE STEADILY UPON THE SPOT, I WANT YOU TO LISTEN TO MY VOICE. STARE AT THE SPOT, AND LISTEN TO MY VOICE.

I WANT YOU TO 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 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.

YOUR EYES ARE GETTING 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 AND 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 BE SO TIRED, YOUR EYELIDS WILL BECOME SO HEAVY, YOUR EYES WILL CLOSE OF THEMSELVES, CLOSE OF THEMSELVES.

(If eyes have not yet closed:) YOUR EYELIDS ARE HEAVIER. HEAVY AS LEAD. GETTING HEAVIER AND HEAVIER, HEAVIER AND HEAVIER. THEY ARE PUSHING DOWN, DOWN, DOWN. YOUR EYELIDS SEEM WEIGHTED WITH LEAD, HEAVY AS LEAD.... YOUR EYES ARE BLINKING, BLINKING, BLINKING... CLOSING.... CLOSING....

(If eyes have not yet closed:) YOUR EYES HAVE NOW BECOME UNCOMFORTABLE BECAUSE OF YOUR STARING SO STEADILY. CLOSE YOUR EYES, CLOSE THEM NOW. CLOSE. THAT'S RIGHT, CLOSE YOUR EYES.

PLEASE SPEND A FEW MOMENTS NOTICING HOW RELAXED YOU HAVE BECOME, AGAIN. SO RELAXED, SO DEEPLY RELAXED. PLEASANT. COMFORTABLE. RELAXED.

Allow ten seconds to pass, and then begin dehypnotization.

IN A FEW MOMENTS, I WILL AGAIN ASK YOU TO OPEN YOUR EYES. I WILL COUNT FROM TEN, AND WHEN YOU HEAR ME SAY "THREE", YOU WILL OPEN YOUR EYES. AT "ONE", YOU WILL BE COMPLETELY AWAKE, AND QUITE ALERT, READY, 10 -- 9 -- 8 -- 7 -- 6 -- 5 -- 4 -- 3 -- 2 -- 1. WIDE AWAKE! COMPLETELY ALERT! HOW DO YOU FEEL?

Allow the subject to comment briefly.

3. EYE CLOSURE - THUMB TACK ON WALL (Time: 7 minutes)

A thumbtack is placed in such a way that a seated subject must turn his/her eyes upward to look at it. It may be placed on the wall, at least six feet from the eyes of the

subject. A subject who wears glasses should keep them on; contact lenses should be removed. Both the experimenter and the subject are seated. Instructions are read with the same tone and at the same speed as before.

DO YOU SEE THAT THUMB TACK ABOVE AND IN FRONT OF YOU? (If necessary, point to it.) GOOD. THAT IS WHAT I WILL MEAN BY THE "TARGET". 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. TILT YOUR HEAD UP ENOUGH SO THAT YOU CAN LOOK WITHOUT UNDUE STRAIN. (If wearing glasses:) AND SO THAT YOU CAN SEE IT THROUGH YOUR GLASSES.

I WANT YOU TO LOOK STEADILY AT THE TARGET AND WHILE KEEPING YOUR EYES UPON IT LISTEN TO WHAT I SAY. YOUR ABILITY TO BE HYPNOTIZED DEPENDS 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 FURTHER COOPERATION I CAN HELP YOU TO BECOME HYPNOTIZED. YOU CAN ONLY BE HYPNOTIZED 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. IT IS MERELY A STATE OF STRONG INTEREST IN SOME PARTICULAR THING. 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. 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.

(If the subject's eyes have not yet closed:) JUST RELAX. DON'T BE TENSE. KEEP YOUR EYES ON THE TARGET. LOOK AT IT AS STEADILY AS YOU CAN. SHOULD YOUR EYES WANDER FROM IT, THAT WILL BE ALL RIGHT... JUST BRING YOUR EYES BACK TO IT. AFTER A WHILE, YOU MAY FIND THAT THE TARGET GETS TOO BLURRY, OR PERHAPS MOVES ABOUT, OR EVEN CHANGES COLOUR. THAT'S 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 BECOME SO TIRED 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.

(If the subject's eyes have not yet closed;) AS YOU RELAX MORE AND MORE, A FEELING OF HEAVINESS PERHAPS 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 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.

(If the subject's eyes have not yet closed:) YOUR EYES ARE GETTING TIRED FROM STARING. THE HEAVINESS IN YOUR EYELIDS IS INCREASING. SOON YOU WILL NOT BE ABLE TO KEEP YOUR EYES OPEN. 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.

(If the subject's 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.

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 OF THE MUSCLES OF YOUR BODY... LET YOURSELF BE LIMP, LIMP, LIMP. RELAX MORE AND MORE, MORE AND MORE.. RELAX COMPLETELY. RELAX COMPLETELY.

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, OF 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 FOR YOU TO ATTEND TO BUT MY VOICE. ALL THE WHILE YOU KEEP BECOMING MORE AND MORE DEEPLY RELAXED.

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 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.

This ends the induction series.

Appendix F

Hypnotizability scale:
instructions and scoring procedure

HYPNOTIZABILITY SCALE: INSTRUCTIONS AND SCORING PROCEDURE

I. 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, AND PERHAPS YOU WILL NOT HAVE ALL OF THE EXPERIENCES I WILL DESCRIBE TO YOU. THAT WILL BE ALL RIGHT. BUT YOU WILL HAVE AT LEAST SOME OF THE EXPERIENCES AND YOU WILL FIND THESE INTERESTING. YOU JUST EXPERIENCE WHATEVER YOU CAN. 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... AND AS IT FEELS HEAVIER AND HEAVIER IT BEGINS TO MOVE... AS IF SOMETHING WERE 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 AND 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 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. THERE... JUST RELAX.

Record score (+) if hand has lowered at least six inches by end of ten-second wait. Go to Instruction 2. ARM IMMOBILIZATION.

2. 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 SHARE IN THE FEELING OF HEAVINESS... HOW HEAVY YOUR RIGHT HAND FEELS... AND NOTE HOW AS YOU THINK ABOUT THIS HEAVINESS IN YOUR HAND AND ARM THE HEAVINESS SEEMS TO GROW EVEN MORE... NOW YOUR ARM IS GETTING HEAVY... VERY 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... BUT PERHAPS IN SPITE OF BEING SO HEAVY YOU COULD LIFT IT A LITTLE, ALTHOUGH IT MAY BE TOO HEAVY EVEN FOR THAT... WHY DON'T YOU SEE HOW HEAVY IT IS... 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. JUST RELAX... RELAX COMPLETELY.

(If hand does not lift:) THAT'S FINE... STOP TRYING... JUST RELAX. YOUR HAND AND ARM NOW FEEL NORMAL AGAIN. THEY ARE NO LONGER HEAVY. YOU COULD LIFT THEM COMPLETELY IF YOU WANTED TO, BUT DON'T TRY NOW. JUST RELAX... RELAX COMPLETELY.

Record score. Score (+) if arm rises less than one inch in the ten-second period. Go to Instruction 3. FINGER LOCK

3. FINGER LOCK
(Time: 1 minute)

NOW LET US TRY SOMETHING ELSE. PUT YOUR FINGERS TOGETHER. INTERLOCK YOUR FINGERS. THAT'S IT. PRESS YOUR HANDS TIGHTLY TOGETHER. NOTICE HOW YOUR FINGERS ARE BECOMING TIGHTLY INTERLOCKED TOGETHER, MORE AND MORE. TIGHTLY INTERLOCKED TOGETHER... SO TIGHTLY INTERLOCKED TOGETHER THAT YOU WONDER VERY MUCH IF YOU COULD TAKE YOUR FINGERS AND

HANDS APART.... YOUR FINGERS ARE INTERLOCKED, TIGHTLY INTERLOCKED... AND I WANT YOU TO TRY TO TAKE YOUR HANDS APART.... JUST 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... 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.

Record score. Score (+) if fingers are incompletely separated at end of ten seconds. Go to Instruction 4. ARM RIGIDITY.

4. 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 IN TO 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.... SEE HOW MUCH YOUR ARM IS LIKE A BAR OF IRON... TEST HOW STIFF AND RIGID IT IS... TRY TO BEND IT... 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 GREAT 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.

Record score (+) if there is less than two inches of arm bending in ten seconds. Go to Instruction 5. MOVING HANDS

5. 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 THAT A FORCE IS 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... MOVING... MOVING... 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.)

(If hands have touched:) THAT'S FINE. NOW PLACE YOUR HANDS BACK ON THE CHAIR AND RELAX.

Record score. Score (+) if hands are not over six inches apart at end of ten seconds. Go to Instruction 6. VERBAL INHIBITION.

6. VERBAL INHIBITION (NAME)
(Time: 50 seconds)

YOU ARE VERY RELAXED NOW... DEEPLY RELAXED.. THINK HOW HARD IT MIGHT BE TO TALK WHILE SO DEEPLY RELAXED... PERHAPS AS HARD TO TALK AS WHEN ASLEEP... I WONDER IF YOU COULD SAY YOUR NAME. I REALLY DON'T THINK YOU COULD... YOU MIGHT TRY A LITTLE LATER WHEN I TELL YOU TO... BUT I THINK THAT YOU WILL FIND IT QUITE DIFFICULT... 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... GO AHEAD AND SAY IT... THAT'S RIGHT. NOW RELAX.

Record score. Score (+) if name unspoken in ten seconds. Go to Instruction 7. EYE CATALEPSY.

7. 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... IF YOU TRIED TO OPEN THEM NOW, THEY MOST LIKELY WOULD FEEL AS IF YOUR EYELIDS WERE TIGHTLY 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... SO TIGHTLY CLOSED. JUST 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 8. POST-HYPNOTIC SUGGESTION.

B. POST-HYPNOTIC SUGGESTION (TOUCHING EAR)
(Time: 2'30")

REMAIN DEEPLY RELAXED AND PAY CLOSE ATTENTION TO WHAT I AM GOING TO TELL YOU NEXT. IN A MOMENT I SHALL BEGIN COUNTING BACKWARDS FROM TWENTY TO ONE. YOU WILL GRADUALLY WAKE UP, BUT FOR THE MOST OF THE COUNT YOU WILL STILL REMAIN IN THE STATE YOU ARE NOW IN. BY THE TIME I REACH "FIVE" YOU WILL OPEN YOUR EYES, BUT YOU WILL NOT BE FULLY AROUSED. WHEN I GET TO "ONE" YOU WILL BE FULLY ALERT, IN YOUR NORMAL STATE OF WAKEFULNESS. YOU WILL PROBABLY HAVE THE IMPRESSION THAT YOU HAVE SLEPT BECAUSE YOU WILL HAVE DIFFICULTY IN REMEMBERING ALL THE THINGS I HAVE TOLD YOU AND ALL THE THINGS THAT YOU DID OR FELT. IN FACT, YOU WILL FIND IT TO BE SO MUCH OF AN EFFORT TO RECALL ANY OF THESE THINGS THAT YOU WILL HAVE NO WISH TO DO SO. IT WILL BE MUCH EASIER TO FORGET EVERYTHING UNTIL I TELL YOU THAT YOU CAN REMEMBER. YOU WILL REMEMBER NOTHING OF WHAT HAS HAPPENED UNTIL I SAY TO YOU: "NOW YOU CAN REMEMBER EVERYTHING!" YOU WILL NOT REMEMBER ANYTHING UNTIL THEN. AFTER YOU OPEN YOUR EYES, YOU WILL FEEL FINE. YOU WILL HAVE NO HEADACHE OR OTHER 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 SAY "ONE". AT "ONE" YOU WILL BE AWAKE.... A LITTLE LATER I SHALL TAP MY PENCIL ON THE TABLE. WHEN I DO, YOU WILL TOUCH YOUR LEFT EAR WITH YOUR RIGHT HAND. YOU WILL DO THIS, BUT 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. YOU FEEL WIDE AWAKE NOW!

(If subject keeps eyes closed:) WAKE UP! WIDE AWAKE! HOW DO YOU FEEL? (If drowsy:) THE FEELING WILL GO AWAY

SOON. YOU FEEL WIDE AWAKE NOW!

Experimenter shortly taps pencil against table. (Allow ten seconds)

(If subject makes no gesture toward his/her ear:) IF YOU WISH TO STRETCH YOUR LEGS FOR A MOMENT, GO AHEAD. NOW YOU CAN REMEMBER EVERYTHING! YOU CAN REMEMBER ALL OF THE EXPERIENCES WHICH YOU HAVE HAD. WOULD YOU LIKE TO COMMENT ON THESE? (Allow subject to comment.)

(If subject gestures toward his/her ear or touches it:) IF YOU WISH TO STRETCH YOUR LEGS FOR A MOMENT, GO AHEAD. NOW YOU CAN REMEMBER EVERYTHING! YOU CAN REMEMBER ALL OF THE EXPERIENCES WHICH YOU HAVE HAD. WOULD YOU LIKE TO COMMENT ON THESE? (allow subject to comment.)

Record score. Score (+) for post hypnotic response if any partial gesture toward the ear is made in response to the pencil tap.

The following scoring scheme should be applied. The experimenter totals the recorded plus signs which indicate the passed suggestions. This total is the subject's hypnotizability score. The final hypnotizability score is a number out of eight.

Appendix G

Standard induction

STANDARD INDUCTIONEYE CLOSURE INDUCTION: PART A
(Time: 15 minutes)

A thumb tack is placed in such a way that a seated subject must turn his/her eyes upward to look at it. It may be placed on the ceiling, at least six feet 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.

DO YOU SEE THAT TACK ABOVE AND IN FRONT OF YOU? (If necessary, point to it.) GOOD. THAT IS WHAT I WILL 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. TILT YOUR HEAD UP ENOUGH SO THAT YOU CAN LOOK WITHOUT UNDUE STRAIN. (If wearing glasses: AND SO THAT YOU CAN SEE IT THROUGH YOUR GLASSES.) I WANT YOU TO LOOK STEADILY AT THE TARGET AND WHILE KEEPING YOUR EYES UPON IT LISTEN TO WHAT I SAY. YOUR ABILITY TO BE HYPNOTIZED DEPENDS 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 FURTHER COOPERATION I CAN HELP YOU TO BECOME HYPNOTIZED. YOU CAN ONLY BE HYPNOTIZED 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.

If eyes close, go to PART B (2') and continue through PART B (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 FROM IT, THAT WILL BE ALL RIGHT... JUST BRING YOUR EYES BACK TO IT. AFTER A WHILE, YOU MAY FIND THAT THE TARGET GETS TOO BLURRY, OR PERHAPS MOVES ABOUT, OR EVEN CHANGES COLOUR. THAT'S 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 BECOME SO TIRED 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 to PART B (2') and continue through PART B (7').

(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 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 PART B (3') and continue through PART B (7').

(4) AS YOU RELAX MORE AND MORE, A FEELING OF HEAVINESS PERHAPS 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 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 PART B (4') and continue through PART B (7').

(5) YOUR EYES ARE GETTING 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 AND 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 BE SO TIRED, YOUR LIDS WILL BECOME SO HEAVY, YOUR EYES WILL CLOSE OF THEMSELVES, CLOSE OF THEMSELVES. (Time: 60")

If eyes close, go to PART B (5') and continue through PART B (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 PART B (6') and continue through PART B (7').

YOUR LIDS ARE HEAVIER. HEAVY AS LEAD. GETTING HEAVIER AND HEAVIER, HEAVIER AND HEAVIER. THEY ARE PUSHING DOWN, DOWN, DOWN. YOUR EYELIDS SEEM WEIGHTED WITH LEAD, HEAVY AS LEAD.... YOUR EYES ARE BLINKING, BLINKING, BLINKING... CLOSING.... CLOSING.... (Time: 15")

If eyes have not 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. MUST 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 -- DEEPEER AND DEEPEER, ALWAYS DEEPEER 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 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')

This ends the standard induction.

EYE CLOSURE: PART B

For those who close their eyes early:

As soon as eyes close, terminate the sentence appropriately, then say: YOU ARE COMFORTABLY RELAXED, BUT YOU ARE GOING TO RELAX MUCH MORE. YOUR EYES ARE NOW CLOSED. KEEP YOUR EYES CLOSED UNTIL I TELL YOU TO OPEN THEM OR 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 ALL RIGHT... JUST BRING YOUR ATTENTION BACK TO IT. AFTER A WHILE YOU MAY FIND THAT MY VOICE SEEMS TO BECOME FAINT OR REcede FROM YOU OR AGAIN CHANGES IN QUALITY. THAT IS ALL RIGHT. SHOULD YOU GET SLEEPY, 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 OF THE MUSCLES OF YOUR BODY.... LET YOURSELF BE LIMP, LIMP, LIMP. RELAX MORE AND MORE, MORE AND MORE. 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. YOUR BREATHING IS BECOMING SLOW AND REGULAR. YOU ARE GETTING 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, OF 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 FOR YOU 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 RELAXATION, 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 PLEASANT STATE, 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, INTO A DEEP COMFORTABLE, A DEEP RESTFUL SLEEP. A SLEEP IN WHICH YOU WILL BE ABLE TO DO ALL SORTS OF THINGS THAT 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 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.

This ends the standard induction.

Appendix H

Interest rating scale

INTEREST RATING SCALE

Using the scale below, please indicate how interesting you found the session which has just ended. The scale ranges from 1 to 10. If you found the session extremely uninteresting, you would circle a number around 1 or 2. If you found the session extremely interesting, you would circle a number around 9 or 10. However, if you did not find the session interesting or uninteresting, you would choose a number in the middle range. Please indicate your interest below:

1 2 3 4 5 6 7 8 9 10

Extremely uninteresting Neither interesting nor uninteresting Extremely interesting

Appendix I

Experimental instructions:

Debriefing procedure

EXPERIMENTAL INSTRUCTIONS: DEBRIEFING PROCEDURE

At this time, the subject is given a brief explanation of the present experiment and provided with the opportunity to ask any questions.

THAT COMPLETES THE EXPERIMENT. YOU ARE NO LONGER HYPNOTIZED, IN FACT YOU ARE FUNCTIONING EXACTLY AS YOU DID WHEN YOU FIRST ARRIVED. DO YOU HAVE ANY COMMENTS?

Although the comments of the subject are of no importance to the experiment, it is appropriate to insure that the subject does not leave the experiment with any doubts or confusion.

I WILL NOW TELL YOU A BIT MORE ABOUT THE PRESENT EXPERIMENT. WHILE YOU WERE BEING ADMINISTERED THE HYPNOTIC INDUCTION, YOU WERE ALSO BEING CAREFULLY OBSERVED BY ME AND I WAS RECORDING CERTAIN BEHAVIOURS WHICH YOU INITIATED IN RESPONSE TO THE INSTRUCTIONS. THIS IS HOW WE OBTAIN AN INDEX OF HYPNOTIC SUSCEPTIBILITY. DO YOU SEE HOW THIS WORKS?

If the subject asks questions concerning his/her hypnotic susceptibility, he/she should not be given the exact scores. However, it is acceptable to comment that his/her responses were similar to those of other subjects. Because the present inductions are adaptations, there is no firm normative basis for estimating the subject's hypnotizability with precision.

WE WILL BE SCORING ALL OF THE RESULTS FOR BOTH THE PERSONALITY SCALE AND THIS EXPERIMENT. AFTER WE HAVE SEEN ALL OF THE SUBJECTS IN THE EXPERIMENT, THE SCORES WILL BE ANALYSED STATISTICALLY. THEN WE WILL BE ABLE TO MAKE SOME STATEMENTS ABOUT THE RELATIONSHIPS BETWEEN TYPES OF HYPNOTIC INDUCTIONS AND PERSONALITY CHARACTERISTICS. DO YOU HAVE ANY QUESTIONS?

Answer any questions unless they refer to specific predictions. If information this specific is given, it may be inadvertently communicated by the subject to other potential subjects. Similarly, the subject will not be told how he/she scored on the EPI.

THANK-YOU VERY MUCH FOR YOUR PARTICIPATION. IF YOU HAVE ANY OTHER QUESTIONS LATER ON, PLEASE FEEL FREE TO VISIT US AND WE WILL BE PLEASED TO ANSWER THEM.

