



University of Tennessee, Knoxville  
Trace: Tennessee Research and Creative  
Exchange

---

Doctoral Dissertations

Graduate School

---

8-2009

# Parsing Out Everyday Suggestibility: A Test-Retest Study

Nicole Perez

*University of Tennessee - Knoxville*

---

## Recommended Citation

Perez, Nicole, "Parsing Out Everyday Suggestibility: A Test-Retest Study." PhD diss., University of Tennessee, 2009.  
[https://trace.tennessee.edu/utk\\_graddiss/652](https://trace.tennessee.edu/utk_graddiss/652)

This Dissertation is brought to you for free and open access by the Graduate School at Trace: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Doctoral Dissertations by an authorized administrator of Trace: Tennessee Research and Creative Exchange. For more information, please contact [trace@utk.edu](mailto:trace@utk.edu).

To the Graduate Council:

I am submitting herewith a dissertation written by Nicole Perez entitled "Parsing Out Everyday Suggestibility: A Test-Retest Study." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Michael R. Nash, Major Professor

We have read this dissertation and recommend its acceptance:

Donald W. Hastings, Lance T. Laurence, John Lounsbury

Accepted for the Council:

Dixie L. Thompson

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

---

To the Graduate Council:

I am submitting herewith a dissertation written by Nicole A. Perez entitled "Parsing Out Everyday Suggestibility: A Test-Retest Study." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Michael R. Nash, Major Professor

We have read this dissertation  
and recommend its acceptance:

Donald W. Hastings

Lance T. Laurence

John Lounsbury

Accepted for the Council:

Carolyn R. Hodges  
Vice Provost and Dean of the  
Graduate School

(Original signatures are on file with official student records.)

**Parsing out everyday suggestibility: A test-retest study**

A dissertation  
Presented for the  
Doctor of Philosophy  
Degree  
The University of Tennessee, Knoxville

Nicole A. Pérez

August 2009

## ACKNOWLEDGMENTS

The authors wish to thank Gustavo A. Camoirano for his hard work and dedication in the construction and replication of the measures used in this study. His creativity and support helped us put together what we envisioned. We thank all undergraduate research assistants who worked in this project over the years, and have since moved on to bigger and better endeavors. And we acknowledge the support of our statistical consultant (Michael O'Neill).

## ABSTRACT

The construct of “suggestibility” has garnered great interest in the field of psychology over the years. It has been invoked as an explanatory construct in social, clinical, and forensic psychology. Yet, the nature of the construct and of its factor structure is unclear. In earlier studies we operationalized suggestibility by measuring conformity, interrogative suggestibility, placebo effects, persuasibility and hypnotizability. There was no discernible factor structure obtained. Similar results were found when we narrowed our focus to sensory suggestibility. There was no cohesion among responsiveness to these types of suggestive situations by examining this phenomenon across eight sensory measures (tactile, auditory, visual, and olfactory). The present study broadens the focus of our research by investigating the stability (test/re-test) of previously evoked suggestion and suggestibility tests (e.g., sensory suggestibility, conformity, interrogative suggestibility, persuasibility, placebo effects, and hypnotizability). Factor analytic methodologies will be applied foreseeing that our previous finding of a non-coherent unitary or multi-factorial solution will be replicated. Results and implications of these findings will be discussed.

## TABLE OF CONTENTS

Introduction .....	1
Chapter I: History of suggestion and suggestibility .....	2
Chapter II: Knowledge on suggestion and suggestibility .....	5
Classic Factor Analytic Studies.....	5
Contemporary Factor Analytic Studies.....	9
Chapter III: History of Sensory Suggestibility.....	10
Contemporary Sensory Suggestibility Studies .....	12
Chapter IV: Present Study .....	14
Purpose of the Present Study .....	14
Hypotheses.....	14
Measures of Suggestibility .....	15
Procedures for the administration of the primary-ideomotor measures.....	15
Procedures for the administration of the secondary-sensory measures.....	16
Procedures for the administration of the tertiary-prestige measures .....	20
Scoring of the Suggestibility Measures.....	21
Chapter V: Methodology.....	23
Research Design.....	23
Procedures.....	23
Participants.....	25
Chapter VI: Preliminary Analysis .....	26
Data Management.....	26
Correlations.....	27
Chapter VII: Stability of Suggestibility Measures .....	29
Correlations.....	29
Chapter VIII: Exploratory Factor Analysis .....	31
Dichotomous Variables .....	32
Continuous Variables.....	34
Chapter IX: Reliability Analysis .....	37
Chapter X: Miscellaneous Analysis .....	39
Chapter XI: Conclusion and Discussion.....	42
Limitations of the Present Study and Future Directions .....	44
Bibliography.....	56
Appendix .....	68
Vita .....	140

## LIST OF TABLES

<i>Number</i>	<i>Page</i>
1. Summary of Factor Analytic Studies on Suggestibility	70
2. Hypothesized Factor Structures	71
3. Suggestibility Measures	72
4. Distribution of the Dichotomous Variable – Test Data	74
5. Distribution of the Dichotomous Variable – Retest Data	74
6. Distribution of the Continuous Variables – Test Data	75
7. Distribution of the Continuous Variable – Retest Data	75
8. Correlation Matrix of Dichotomous Variables (Test-retest Variables)	76
9. Correlation Matrix of Continuous Variables (Test-retest Variables)	92
10. Correlation Matrix Across Test-Retest Sessions of Dichotomous Variables	108
11. Correlation Matrix Across Test-Retest Sessions of Continuous Variables	110
12. Communalities of the Dichotomous Variables – Test Data (Flexible Analysis)	112
13. Total Variance Explained for the Dichotomous Variables – Test Data (Flexible Analysis)	113
14. Initial Factor Solution for the Dichotomous Variables – Test Data (Flexible Analysis)	114
15. Rotated Factor Solution for the Dichotomous Variables – Test Data (Flexible Analysis)	116
16. Communalities of the Dichotomous Variables – Test Data (3 Factor)	118
17. Total Variance Explained for the Dichotomous Variables – Test Data (3 factor)	119
18. Initial Factor Solution for the Dichotomous Variables – Test Data (3 factor)	120
19. Rotated Factor Solution for the Dichotomous Variables – Test Data (3 factor)	121
20. Communalities of the Dichotomous Variables – Test Data (1 Factor)	122
21. Total Variance Explained for the Dichotomous Variables – Test Data (1 factor)	123
22. One Factor Solution for the Dichotomous Variables – Test Data	124



23. Communalities of the Continuous Variables – Test Data (Flexible Analysis)	125
24. Total Variance Explained for the Continuous Variables – Test Data (Flexible Analysis)	126
25. Initial Factor Solution for the Continuous Variables – Test Data (Flexible Analysis)	127
26. Rotated Factor Solution for the Continuous Variables – Test Data (Flexible Analysis)	128
27. Communalities of the Continuous Variables – Test Data (3 factor)	129
28. Total Variance Explained for the Continuous Variables – Test Data (3 factor)	130
29. Initial Factor Solution for the Continuous Variables – Test Data (3 factor)	131
30. Rotated Factor Solution for the Continuous Variables – Test Data (3 factor)	132
31. Communalities of the Continuous Variables – Test Data (1 factor)	133
32. Total Variance Explained for the Continuous Variables – Test Data (1 factor)	134
33. One Factor Solution for the Continuous Variables – Test Data	135
34. Reliability Analysis of the Dichotomous Variables – Test Data	136
35. Reliability Analysis of the Dichotomous Variables – Retest Data	137
36. Reliability Analysis of the Continuous Variables – Test Data	138
37. Reliability Analysis of the Continuous Variables – Retest Data	139

## INTRODUCTION

The study of “suggestion” and “suggestibility” has a venerable position in the history of psychological science. At times, suggestion has evoked intense interest (e.g., recovered memory debate, eye witness testimony, etc.) while at other times it has been ignored. The notion of suggestion is again garnering attention in a number of sub-specialties within psychology: forensic (e.g., Burt, 1931), social (e.g., Hull & Forster, 1930; MacDougall, 1908; Milgram, 1963; Orne, 1962), perception, cognition/sensation (e.g., Hull, 1933; Wundt, 1892), psychotherapy outcome (e.g., Freud, 1910; Janet, 1919/1925; Wachtel, 1993), and placebo effects (e.g. Kirsh & Scobria, 2001; Duke, 1963; Barber, 1960). It is therefore timely to acknowledge that several problems still exist when we evoke the construct of suggestion. In spite of its use in the literature, there is little agreement on what lies within and outside the domains of “suggestion” and “suggestibility”. Its definition remains ambiguous, lacking clear characteristics that specify its boundaries.

Over the years suggestibility has been defined in many ways. For example, in 1908 MacDougall defined suggestibility as *“a process of communication resulting in the acceptance with conviction of the communicated proposition in the absence of logically adequate grounds for its acceptance”*. Years later, the concept of suggestion and suggestibility was defined again by Eysenck (1947) as *“a process of communication during which one or more persons cause one or more individuals to change (without critical response) their judgments, opinions, and attitudes*. The latter has been more broadly defined by the same author as *“the individual degree of susceptibility to influence by suggestion and hypnosis”*, resulting in a greater degree of acquiescence by other suggestibility researchers (e.g., Arnold & Meili, 1972). More recently in 1991, the construct of “suggestion” has been defined by Schumaker (1991) as *“a term used to indicate a person’s propensity to respond to suggested communications”*

## *Chapter 1*

### HISTORY OF SUGGESTION AND SUGGESTIBILITY

The dilemma of defining the constructs of “suggestion” and “suggestibility” date back to the late 1700’s when Fran Anton Mesmer of France used a technique which he named “animal magnetism” to allegedly treat persons suffering from physical and psychological disorders. Such a technique came under scrutiny under the scope of Benjamin Franklin and the Royal Commission which found no scientific support for the proposed method (Franklin et al., 1785/1970). Further, after a series of methodologically sound studies were performed the Royal Commission concluded that Mesmer’s idea of “redistributing fluids”, which he proclaimed as being the cure for human illness, was merely a result of “imagination” and “suggestibility”. Similarly, during the next century, Berheim (1889) countered Charcot’s (1882) claims of treating hysteria with hypnosis as a result of neuropathy, by theorizing that such states were merely a result of suggestion. He even established three necessary components to this claim promoting that suggestion required first, the introduction of an idea into the brain; second, the acceptance of the idea; and third, the realization of the idea.

Clearly, the theories and rebottles of the 1700’s and 1800’s resulted in an uncertain terrain for the construct of “suggestion”. It was obvious that such a construct was not unequivocal and that further investigation was required for the understanding of the established theories. Consequently, the 1900’s approached the study of “suggestion” and “suggestibility” with an interest in defining the terms and mechanisms involved in such a phenomenon. It was during this time that the previously mentioned definitions began to emerge (e.g., MacDougall, 1908; Eysenck, 1947; Schumaker, 1991), along with multiple hypothesis generated by a series of studies that took place during a period of hype in the history of the concept. Also, it became clear that not only were there questions concerning the

actual definition of “suggestion” and suggestibility”, but there were concerns of where they belonged in the field of psychology.

Motivated by these concerns and the sudden development of competing definitions of the construct, researchers of different areas of study within the field began to hypothesize about the applicability of “suggestions” and “suggestibility” in human behavior. Within the realm of social psychology, the idea emerged that a person’s submission to the influences of power and authority was the underpinning mechanism for suggestions. Towne (1916) for example, introduced the belief of “lack of rationality” postulating that “mental influence” caused a person to think, behave, and feel without the use of reason. Even lack of consciousness came into the mix of proposed mechanisms, when Whipple (1924) defined suggestion as the result of accepting an idea, even a flawed one, without conscious awareness. For some, a “suggestive effect” was dependant on the existence of a message (MacDougall, 1908) while others argued that a suggestion could occur even in the absence of any given message (Binet, 1900; Whipple, 1924).

Similarly researchers began to think about suggestibility as it related to personality. Binet (1900) discussed the idea of susceptibility to suggestions as a unitary trait while working with school children in Paris. He argued that such a trait, if present, would be apparent in all areas of a persons’ personality. But, even the construct of suggestion has had its share in the “nature versus nurture” debate particularly through Tarde’s (1907) argument that proposed that the extent to which one can be suggestible is dependent on a person’s acquisition of attitudes and ideals. Such a debate remained unresolved by the series of studies that followed the first part of the century. Although, some researchers found empirical support for a general, unitary trait often referred to as the “g” factor of suggestibility (e.g., Averling & Hargreaves, 1921; Otis, 1923), others failed to replicate such findings (Brown, 1916; Estabrooks, 1929; Scott, 1910). It wasn’t until 1933 that the notion of a “g” factor was seriously challenged.

Hull (1929) argued that suggestibility was not a unitary trait and offered definitions for two types of suggestions that involved two distinct mechanisms. The first was called “prestige suggestions”. Prestige suggestions involved what he called a “direct” suggestive communication where explicit changes in behavior were continuously suggested to the subject by the experimenter. An example of a prestige suggestion would be found in the Body Sway Test (e.g, a commonly used measure of suggestibility in classic studies of suggestion) where the participant is asked to stand upright with his/her eyes closed while the experimenter gives “direct” or explicit suggestions of falling forward: “you are falling forward, forward, falling, falling forward...” (Hull, 1929). Another classic measure of suggestibility that would serve as an example of this type of suggestion would be the Cherveul’s Pendulum Test. Here, the subject is asked to hold a pendulum while the experimenter gives continuous suggestions for the pendulum to swing. The second type of suggestion defined by Hull (1929) was called “non-prestige suggestions”. These were described as being “depersonalized” and therefore, did not involve the communication of a direct statement to the subject. An example of a non-prestige suggestion as intended by Hull would be the Progressive Weights Test, developed by Binet in 1900. In this test 15 identical boxes were presented to the subject. The first five boxes were progressively heavier (e.g., 3g, 5g, 10g, 15g, etc...), while the last 10 boxes had the same weight (e.g., 20g). The subject is asked to lift the boxes (one at a time) beginning with the lightest box. A measure of suggestibility is attained by the subject’s report of any detectable discrepancies in weight among the last 10 boxes.

KNOWLEDGE ON SUGGESTION AND SUGGESTIBILITY

**Classic factor analytic studies**

The notion that there might be distinct types of suggestion (e.g., Hill, 1900) prompted the application of factor analytic methodologies in the study of “suggestion” and “suggestibility. Such factor analytic studies have held until recently, the existing scientific knowledge for this phenomenon. These early investigators of human suggestibility (MacDougall, 1908; Eysenck & Furneaux, 1945, Eysenck, 1947) categorized suggestion as being either “direct” or “indirect” in nature and investigated its effects by administering so-called “primary” or “secondary” measures. Although the “primary” measures have often been associated with hypnotic susceptibility, the secondary measures have not been well explored. Table 1 (see appendix I(a); all tables appear in Appendix A: Tables) provides a summary of the findings from the six classical factor analytic studies on this topic. Definitions of the types of suggestions, results of the six factor analytic studies and their implications are discussed below.

The first comprehensive factor analytic study was performed by Eysenck and Furneaux in 1945. This study used a sample of 60 army veterans who were inpatients at a hospital for the treatment of “nervous disorders”. Using twelve suggestibility tests, this experiment derived two factors. The first factor accounting for fifty-five percent (55%) of the variance included the Body Sway, Arm Levitation, and Chevreul’s Pendulum tests, all of which were labeled by the authors as being measures of “Primary Suggestibility”. A term that they defined as involving the explicit communication of a suggestion (e.g., “you are falling forward, forward, falling forward, forward...”) using measures that had an ideo-motor component, analogous to what Hull (1900) had previously

defined as a “Prestige Suggestion”. The second emerging factor accounted for twenty percent (20%) of the variance. Loading on the latter were the Progressive Weights test and the Odor tests. Such a factor was labeled as “Secondary Suggestibility” because of its lack of directive communication from the experimenter. This type of suggestion was also referred to by Eysenck and Furneaux as “gullibility” (Eysenck & Furneaux, 1945) and was analogous to what Hull (1900) has defined as “non-prestige suggestions”. Eysenck & Furneaux’s (1945) study at best revealed a “Primary Suggestibility” factor that held together reasonably well (e.g., intercorrelation coefficient  $+0.50$ ), with the Body Sway Test and the Hypnosis measure loading the highest. However, the so-called “Secondary Suggestibility” factor was not as sturdy, yielding an intercorrelation coefficient of  $+0.15$ . Even more interesting was the fact that the two highest loadings on this factor were the Odor test and the Inkblot Suggestion Task with a correlation between the two measures of only  $+0.02$ .

The findings of a second factor analytic study performed by Grimes (1948) differed from those of the earlier study (Eysenck & Furneaux, 1945). Using a sample of 233 orphan boys and generally a different set of suggestibility tests (only three of the measures in this study had been used in Eysenck & Furnaux’s 1945 study), Grimes found no clearly delineated suggestibility factor. Similar results were found by Benton and Bandura (1953) in a study in which 50 subjects (50% male) were administered nine suggestibility tests. Using six tests that were the same as the ones used in the study by Eysenck and Furneaux (1945) and one test that had been previously used in Grime’s (1948) study, the results of this experiment were unable to support a two-factor suggestibility structure.

Stukát (1958), who conducted three different factor analytic studies, found results closer to Eysenck and Furnaux’s (1945) two-factor structure. In his first study which consisted of 67 children, 37 of them being boys (mean age 8.6 years-old) and 15 suggestibility measures, a first factor emerged (highest loadings were the Body Sway and the Hand Lowering tests) but there was little evidence of a “secondary” factor. Instead, there was some evidence for a third factor that was closer to what

Eysenck and Furneaux (1945) had identified as “Secondary Suggestibility”. This factor included as its highest loadings measures related to sensory and perceptual experience. In Stukát’s (1958) second study, which involved 184 girls (mean age 11 years-old) and the largest amount of suggestibility measures to date (twenty-four variables) again, there was support for a first factor. But, evidence for any other emerging factor was lacking.

Finally, in Stukát’s third study in which a sample of ninety adults was used, the analysis of seventeen variables revealed yet again, a “primary” factor (highest loadings were the Body Sway and Hand Levitation tests, the first two studies used the Hand Lowering test). This time, although hinging on weak correlations, a second factor emerged that included measures involving contradictory suggestions like the Colors test (having participants state the specific color of a hue followed by false feedback regarding their answer), Co-judge Suggestions (where susceptibility to the opinion of a co-judge is measured), and an Indistinct Words Task. All of these measures involved in some way the use of judgments from the subject.

In an unpublished doctoral dissertation by Duke (1961) there were two emerging factors. Using ten suggestibility measures with ninety-one army veterans (mean age 58.5, ranging from 34 to 72) from a residential facility, a first factor similar to Eysenck and Furneaux’s (1945) “primary” type surfaced with intercorrelations of  $+0.36$ . The second factor had intercorrelations of  $+0.145$ , which increased to  $+0.21$  by the exclusion of the Progressive Weights and Lines tests.

The last factor analytic analysis conducted during the hype of the “suggestion” and “suggestibility” research was conducted by Hammer, Evans, and Barlett (1963). Here, seventy-three undergraduates (24 were male) were administered thirteen measures of suggestibility. The analysis resulted in two factors that were distinguished as “Ideo-motor” (with the highest loadings corresponding to the Arm Bending, Thumb Press, and Chevreul’s Pendulum tests) and a “Vividness of Imagery” factor that included as its highest loadings the Heat Illusion and Heat Imagery tests. The



first emerging factor (e.g., ideao-motor type) was similar to what had been previously labeled as primary suggestibility. The latter was described as a type of suggestion in which the suggested state or condition was simply accepted.

In sum, all of these early factor analytic studies were inconclusive and contradictory. While some researchers found questionable support for the first factor (e.g., direct/primary factor) outlined by Eysenck and Furneaux in 1945 (Stukát, 1958; Duke, 1961; Hammer et al., 1963), others found no evidence for a “secondary” or “indirect” factor. In some cases, finding no clearly delineated suggestibility factor at all (Grimes, 1948; Benton & Bandura, 1953). At best, in light of these findings we can conclude that: (1) suggestibility is not one thing, (2) a person’s response depends on the type of suggestion rather than on a “unitary” trait or “g” factor, (3) individuals seem to respond similar to the motor measures, although it is not clear if it is in fact, the same type of suggestion. Further, the limitations in making such conclusions must be considered. These studies differed in the quality of design and sample selection. For example, some studies included only army veterans who were identified as either being in a hospital or in a residential institution for physical or psychological ailments (Eysenck & Furneaux, 1945; Duke, 1961), while others examined young orphan males (Grimes, 1948). This renders any comparison of findings problematic. Additionally, these studies were inconsistent on the suggestibility measures used. While some researchers included variables that were similar to previous designs (e.g., Eysenck & Furneaux, 1945; Benton & Bandura, 1953) overall, the studies lacked congruence making replication improbable. Replication is also limited by the imperfect demands of journal publication of the time. As a result, these studies did not clearly define their methodologies in the administration of measures (e.g. Body Sway, Hand Levitation, Progressive Weights, etc.).

## **Contemporary factor analytic studies**

Due to equivocal findings in classical studies of suggestibility it was necessary to take a fresh empirical look at this construct using contemporary methodological and statistical techniques. A study by Tasso, Pérez, Klyce, MacNeill and Nash (2003) did precisely that. The authors of this study intentionally used as many suggestibility measures as feasible from the classical studies. They also included some contemporary measures of suggestibility. As well as selecting measures that would spread across the previously identified factors (e.g., primary/direct, secondary/indirect, and tertiary/prestige) so as to address past factor analytic findings. Nine measures were ultimately included in the design with Hypnotizability, Chevreul's Pendulum and the Body Sway tests, identified as typically loading on the first factor; the Progressive weights, Odor test and Placebo response measure, identified as typically loading on the second factor; and Persuasibility, Interrogative Suggestibility, and Conformity tests, identified as typically loading on the third factor.

The sample in this study consisted of 110 undergraduate students (33 male and 77 female) with a mean age of 19.15 years-old and a standard deviation of 1.04 years-old. After applying confirmatory factor analysis, this study failed to support the three-factor structure delineated by Eysenck and Furneaux (1945). Further, it did not confirm the vaguely supported two-factor structure identified by previous factor analytic studies. In fact, the end conclusion was that no clearly delineated factor structure emerged. Instead, the authors cautioned theorists against using "suggestibility" as a unitary concept (e.g., because the measures seemed to be independent of each other) or referring to the construct as a clearly delineated "trait-like" component of personality (e.g., "g" factor). A summary of the classic and contemporary studies of suggestibility can be found in appendix A-1.

## HISTORY OF SENSORY SUGGESTIBILITY

Historically, measures of suggestibility that elicit or make use of sensory experience have been incorporated in classic suggestibility studies (Hull, 1933; Wundt, 1892; Eysenck & Furneaux, 1945; Stukát, 1958; Hammer, Evans & Barlett, 1963; Hajek & Spacek, 1987; Gheorghiu, Hodapp & Ludwing, 1975; Gheorghiu, Grimm & Hodapp, 1978). For instance, the odor test is an example of a measure that assesses the subject's reactivity to suggestions based on sensory perceptions. In this test, six bottles labeled as containing different fragrances are presented to the subject. The last three bottles in the "set" do not contain an actual fragrance instead, they contain only water. Thus, a measure of suggestibility is attained from the subject's discernment of sensing an odor (or smell) from one or more of the three bottles that contain only water. While tests of this sort (e.g., sensory type) have been found to cluster together in what Eysenck and Furneaux (1945) referred to as a secondary type of suggestion, this is not always the case (Duke, 1961; Stukát, 1958; Hammer, Evans & Barlett, 1963).

In more recent studies, researchers have explored sensory measures of suggestibility independently of other suggestibility measures (Gheorghiu & Reyher, 1982; Gheorghiu, Koch, Filkovski, Peiper & Moltz, 2001; Gheorghiu, Polczyk & Kappeller, 2003; Cautela & McLaughlin, 1965). In fact, Gheorghiu and Reyher (1982) developed an "indirect-direct" sensory suggestibility scale using 12 measures: three tactual (e.g., Glass test, Ring test and Hand Pricking test), four auditory (e.g., Tone test, Three-tone test, Simultaneous Watch test and Watch test) and five visual (e.g., Light test, Black Disk test, Half-field Light test and Dynamo Test). In this study the measures used were categorized as belonging to one of five types: (1) increasing intensity of the stimulus, where an actual stimulus is presented and the appearance of gradation occurs but without the actual increase of the

implied stimulus (e.g., in the light test the subject is asked to observe a light-bulb that supposedly gets brighter by the experimenter's manipulation of a knob, a measure of suggestibility is obtained when the subject reports seeing the light-bulb getting brighter); (2) decreasing intensity of the stimulus, where an actual stimulus is presented and the appearance of gradation occurs but without the actual decrease of the implied stimulus (e.g., in the tone test the subject is presented with a tone of constant intensity while the experimenter suggests a decrease of intensity, a measure of suggestibility is obtained when the subject reports the tone getting lower); (3) simultaneous presentation with one pair omitted, where the subject is presented with the suggested stimulus simultaneously in both sides of the body but in fact, only one side of the body receives the actual stimulus (e.g., in the hand pricking test the subject is told that pricking will occur on both hands, yet only one hand is actually pricked – a measure of suggestibility is obtained when the subject reports pricking on both hands); (4) expectation of series without objective stimuli, where a stimulus that doesn't actually exist is suggested to the subject (e.g., in the watch test the subject is presented with a stop watch that supposedly "ticks" and a measure of suggestibility is obtained when the subject reports hearing the ticking of the watch); and (5) illusory cause and effect, where the illusion of an effect is suggested to the subject although the effect or result through manipulation never takes place (e.g., in the Dynamo Test subjects are presented with a bulb that supposedly gets brighter by the manipulation of a dynamo, the dynamo generates a tone that gets progressively louder).

Gheorguiu and Reyher (1982) reported a reliability coefficient of .75 with a test-retest correlation ( $n=60$ ) of .71. The item analysis yielded significant correlation coefficients for all except two measures, the Glass test and the Rings test. They also reported the method of presentation as not proving to be a factor in the level of difficulty of the measures. Yet, an analysis of simple effects revealed the method of increasing intensity of the stimulus as being the easiest, while the method of decreasing intensity of stimulus appeared to be the most difficult. Additionally, because their tests

were performed on both sides of the body, the emergence of what appeared to be a left side advantage was reported. Level of confidence in the response was also measured in this study using a dichotomous (certain / uncertain) measure, and it was reported that the subject's "certain" responses were reliably larger than the "uncertain" responses.

There were however, some limitations in this study. First, olfactory measures that have been included in classical studies of suggestibility were excluded (e.g., odor tests). Second, while the authors reported reliable scales, the twelve measures were in fact extracted from an original set of twenty-one items and were never cross validated. Third, factor analysis was not employed to determine if such measures do indeed form a coherent factor structure. Fourth, the scales items were entirely dichotomous and hence vulnerable to producing artifactual factor analytic solutions (Hojtink & Wilmink, 1999). Therefore, noting the positivity of sensory suggestions and in light of the limitations of the previously discussed study, Perez, Brown, Tasso & Nash (2004) examined whether a circumscribed aspect of suggestion, response to sensory suggestions, might reveal coherence with either unitary or multiple factor structure, correcting for dichotomy of variables. In other words, Perez, et al. (2004) took a closer look at strictly sensory measures in order to assess the coherence of a "sensory suggestibility" factor.

### **Contemporary sensory suggestibility studies**

The study by Perez, et al. (2004) used a sample of 146 undergraduate students (n=146) and hypothesized three possible factorial models of sensory suggestibility: (1) Response to sensory suggestibility would be a unitary construct (e.g., a one-factor structure that would include all the sensory measures administered in the study, in accord with Eysenck and Furnaux's "Secondary" type), (2) Response to sensory suggestibility would adhere to a two-factor structure (corresponding to Gheorghiu & Reyher's (1982), "Initiation" and "Intensification" distinction) and/or (3) Response to

sensory suggestibility would be sensory channel dependant (e.g., a four-factor structure where each factor corresponds to one of the four sensory channels sampled – auditory, visual, tactile, and olfactory). Eight measures of sensory suggestibility were administered in this study. The eight measures used were: the hand test, the glass test, the watch test, the tone test, the black disk test, the light test, the odor test, and the lemon test. Two methods of structural analysis were applied, an exploratory method (lax grouping approach) and a confirmatory method (stipulating the hypothesized structures and attempting “best fit”). Results of the exploratory analysis did not support any of the hypothesized factor structures. Instead, a three factor structure emerged. The lemon test, the odor test, the black disk test, and the hand test loaded on factor 1, accounting for 20.61% of the variance; the lemon test, light test, tone test, and the glass test loaded on factor 2, accounting for 19.15% of the variance; and the light test, the glass test, the odor test, and the watch test loaded on the third factor, accounting for 13.98 % of the variance. Similarly, results of the confirmatory factor analysis failed to support any of the hypotheses. Further, the authors tested the notion of Gheorghiu & Reyher’s (1982) sensory suggestibility scale. Reliability analysis of the measures used in this study yielded a Chronbach’s Alpha of .567 (increased only to .599 by the deletion of the Watch test) which did not support a highly reliable scale. Additionally, analysis of the variables and their relationship to personality traits as measured by a Big Five Inventory (BFI) was conducted, resulting in no clear relationship between personality factors and the sensory suggestibility measures.

## *Chapter 4*

### PRESENT STUDY

#### **Purpose of the present study**

The present study builds on the factor analysis of common “suggestion” measures by Tasso, et al (2003) and the recent factor analysis of “sensory suggestibility” measures by Perez, et al (2004). Noting the lacking knowledge of the stability of suggestibility tests, we examined whether classic suggestibility measures, response to sensory suggestions were stable over time. In addition we revisit our previous studies by conducting a factor analytic investigation to test (again) if our data might reveal coherence with either unitary or multiple factor structure. Further we examined the relationship of the administered tests with hypnotic susceptibility.

#### **Hypotheses**

Based on previous factor analytic work on the construct of suggestibility, we hypothesize that response to suggestibility tests will exist across repeated measures; meaning that a subject will respond in a similar way to the same suggestibility test at different points in time. Further, in hopes to replicate our previous findings (Tasso, 2003; Perez, 2004; 2005) we tested two possible structural models of suggestion and suggestibility: (1) Response to sensory suggestibility is a unitary construct (e.g., a one-factor structure that would include all the measures included in the study) and (2) Response to suggestibility adheres to a three three-factor structure corresponding to classic factor analytic studies (e.g., a three-factor structure where each factor corresponds to one of one of three categories: Primary/Direct-ideomotor, Secondary/Sensory-perceptual, or Tertiary/Prestige). In accord with classic studies of suggestibility we would expect the hypnosis scale, the body sway test, and the

pendulum test to load on the first factor; the watch test, the odor test, the hand test, the black disk test, the tone test, the lemon test, the glass test, the light test, the placebo test and the progressive weights test to load on the second factor; the inkblot test, the co-judgment test (persuasion test) and the Gudjonson test (interrogative suggestibility) to load on the third factor. An outline of the hypothesized factor model is presented in table A-2. Detailed description of the measures used for testing our hypotheses can be found in table A-3 (See appendix II(a) and III(a)).

### **Measures of suggestibility**

Sixteen measures of suggestibility were administered in the present study. The sixteen measures used were: Hypnosis scale, the Hand test, the Glass test, the Watch test, the Tone test, the Black Disk test, the Light test, the Odor test, the Lemon test, the Inkblot test, Placebo test, Progressive Weights test, Body Sway test, Pendulum test, Co-judgement Suggestibility test, and Gudjonson Suggestibility test. All of the measures administered were classically labeled either as primary/direct-ideomotor, secondary/sensory-perceptual, or tertiary/prestige as previously described by Eysenck & Furneaux, (1945).

### **Procedures for the administration of primary/direct-ideomotor measures**

*Hypnosis Scale.* We used the Harvard Group Scale of Hypnotic Susceptibility, Form A (HGSHS:A; Shor & Orne, 1962) to provide hypnotizability scores as part of an undergraduate introductory psychology course (where subjects for the subsequent parts of the experiment were recruited)..

*The Body Sway Test* (Hull, 1929). It is suggested that the subject will sway and fall backward. The procedure requires the subject to stand (feet close together) with his/her back to the experimenter. For each trial, the experimenter stands behind the subject and places both hands about a foot from the



subject's back, assuring him/her that in the event of swaying, there will be no danger of falling. The experimenter then offers suggestions while assuring the subject that while suggestions of "swaying" and "falling" backward are given (e.g., you are falling, swaying backward, falling...). A measure of suggestibility is attained when the subject acts on the suggestion, falls/sways backward; if the subject sways or falls  $\frac{1}{2}$  a foot or falls into the experimenter's hands (1 foot). Suggestions are given for 30s.

*The Pendulum Test.* (Eysenck and Furneaux, 1945) It is suggested that a pendulum will swing while the subject holds it steadily over a ruler. The procedure requires the subject holds a pendulum steadily (without trying to move it) over a ruler. The experimenter then offers suggestions of the pendulum swinging over the ruler (e.g., there it goes, it's swinging, moving, swinging...). A measure of suggestibility is attained when the subject acts on the suggestion and the pendulum is observed to swing. The distance that the pendulum swings is recorded. Suggestions are given for 10s.

### **Procedures for the administration of secondary/sensory-perceptual measures**

*The Hand Test.* It is suggested that the subject will experience sensation of heat (Gheorghiu, V.A. et al., 2001). The procedure requires the subject to sit with his arm extended (from the elbow to the hand - palm facing downward) on the arm rest of a chair. For each trial, the experimenter places his hand inside a heating pad (12" x 14") for about 15s. The pad is turned on at the lowest setting, but the subject is not aware of this, instead they are informed that the heating pad is "very hot". The experimenter then lowers his hand slowly towards the subjects' arm, while following a ruler on the wall. The movements of the hand start at 15cm from the skin and never get closer than 5cm – a distance at which, under normal conditions, no perception of warmth is possible (Gheorghiu et al, 2001). Subjects are instructed to inform to the experimenter when the sensation of warmth is perceived on the skin. No actual stimulus is presented. The duration of the test is 10s which is monitored by a stop watch.

*The Glass Test.* It is suggested that a change in weight in the contents of a glass should be perceived (Gheorghiu, V.A. et al., 2001). The procedure requires the subject to stand in front of a black box (17"x 15"x 46") that has two openings, one facing the subject and another that allows water to flow through a funnel (placed on top of the box) into a concealed cup inside the box. The experimenter stands opposite to the subject (with the box between them). The subject is then asked to put his hand through the opening in the box (8m/cm) and a transparent glass (11oz – acrylic) filled with 1/3 cup of water is shown and then given to the subject to hold. The experimenter then uses a measuring cup to slowly pour water through the funnel, which deposits into another cup (kept secret from the subject), which is part of the apparatus. Subjects are instructed to report to the experimenter the moment in which they detect an increase in weight. An actual stimulus is presented but, there is no actual change in the weight or contents of the glass held by the subject. The duration of the test is 10s which is monitored by a stop watch.

*Black Disk Test.* A cardboard disk is brought near the subjects' eye and the presence of a green dot that is located in the center of the disk is suggested (Hajek & Spacek, 1987; Gheorghiu, Hodapp & Ludwing, 1975; Gheorghiu, Grimm & Hodapp, 1978). The procedure requires the subject to sit across from the experimenter. The subject is then asked to cover one eye (typically the left eye), while the experimenter holds the solid black cardboard disk (6.5 m/cm) at a distance of approximately 15cm from the subjects face. The disk is then slowly moved closer to the subject's eye following a ruler on the wall (getting no closer than 5cm). Subjects are instructed to report to the experimenter when the green dot in the center of the disk is perceived. No actual stimulus is presented. The duration of the test is 10s which is monitored by a stop watch.

*Light Intensity Test.* It is suggested that the light intensity of a light bulb will increase (Hajek & Spacek, 1987; Gheorghiu, Hodapp & Ludwing, 1975; Gheorghiu, Grimm & Hodapp, 1978). A white light bulb (25w, GE, 3 1/8" wide, medium base, model 60G25) is attached to a black electrical box

(9"x6.5"x2.75"). The box has an "on" switch (conmutator-basculant switch) and a knob with numbers ranging from 1-10 presumably, for manipulation of light intensity. The subject is asked to wear sunglasses and to sit (at a distance of approximately 3') facing a table in which the device has been placed. The experimenter proceeds to turn off the light of the laboratory and turn on the light on the device and informs the subject that the device has been specially designed to increase in brightness by the manipulation of the knob. The experimenter then, turns the knob slowly (clockwise) while subjects are instructed to report as when they can detect an increase in brightness. An actual stimulus is presented but, there is no actual change of intensity. The duration of the test is 15s which is monitored by a stop watch.

*Odor Test.* Subjects are presented with 6 dark colored bottles labeled with different smells. The bottles are set up in the following order on a table: (1) Rose, (2) Tangerine, (3) Peppermint, (4) Jasmine, (5) Grapefruit, and (6) Vanilla. Bottles #1, #2 and #3 containing actual scented oils in accord with the label, while bottles #4, #5 and #6 containing only water. Scent is suggested to exist in all 6 bottles (Abraham, H. 1962). The subject is seated in front of the table facing the bottles (labels exposed). The experimenter then, removes the top of each bottle (one at a time) and moves them slowly towards the subjects' nose (movements starting upward from the tip of the chin). The subject is not allowed to touch the bottles. The experimenter wears latex unscented gloves to prevent the subject from detecting smells related to soap, lotion or perfume from the experimenter's hand. Subjects are instructed to report as soon as they detect a smell of any kind in each bottle. No actual stimulus is presented in the last three bottles. The duration of the test is 30s (approx.5s per bottle) which is monitored by a stop watch.

*The Lemon Test.* 9 bottles containing lemon extract and yellow food coloring are presented to the subject, it is suggested that the smell of lemon gets stronger with each bottle (Council & Loge, 1988). This test was adjusted by the first author to fit the purposes of this experiment. Nine small

glass corked bottles labeled 1-9 are placed on a table each containing the same amount of lemon extract. The food coloring is manipulated to suggest that the bottles differ in the amount of lemon that they contain (e.g. bottle #1 is pale yellow, bottle #2 gets darker, bottle #3 gets even darker, etc.). The subject is seated on a chair facing the bottles. The experimenter then takes the top off each bottle and brings them up to the subject's nose one at a time. Subjects are asked to not touch the bottles and the experimenter wears latex unscented gloves to prevent the subject from detecting any scents related to soap, lotion or perfume from the experimenter's hands. Subjects are instructed to inform the experimenter of the first bottle in which they can first detect the lemon smell. Once the smell is detected by the subject, the experimenter proceeds to present bottle #9 and informs the subject that this bottle contains the most amount of lemon. The subject is asked to determine which of the bottles has the strongest smell (a comparison between the one that was first identified and bottle #9). The duration of the test is 10s (approx.5s per bottle) which is monitored by a stop watch.

*The Watch Test.* Ticking of a mechanical stop watch is suggested to the subject ((Jones & Spanos, 1982; Gheorghiu, Hodapp & Ludwing, 1975; Gheorghiu, Grimm & Hodapp, 1978). The procedure requires the participant to be seated while the experimenter stands behind the chair. A mechanical stop watch is slowly moved towards the subjects' right ear. Movement begins at 15cm from the back of the subjects head and stop at 5cm from the subject's ear. The subject is instructed remain still during the process. The test is performed on one side of the body. Subjects are instructed to report as soon as they detect ticking. No actual stimulus is presented. The duration of the test is 10s which is monitored by a stop watch.

*Tone Intensity Test.* A recorded tone of constant intensity is presented to the subject through head-phones and a progressive increase in volume is suggested (Gheorghiu, Hodapp & Ludwing, 1975; Gheorghiu, Grimm & Hodapp, 1978). The procedure requires the subject sit in a chair next to the experimenter – who sits facing a computer which is set up on a table. The headphones are placed

on the subjects head and removed when a change in tone is perceived or after 30s. The recorded tone of constant intensity (120ds, flat EQ, 780Kb) is played on the computer using standard audio software and is activated manually by the experimenter. Subjects are instructed to give a signal as soon as they detect a change in the volume of the tone. An actual stimulus is presented but, there is no actual intensification of the tone. The duration of the test is 30s which is monitored by a stop watch.

*Placebo Test* (Duke, 1961). The procedure requires the subject sit in a chair while listening to a CD through headphones. They are told that the CD will make them feel more energetic, more alert, make their heart beat faster, and cause the sensation of butterflies in the stomach. Though the CD is introduced as a special CD designed to tap into neurological functions responsible for such physiological phenomena, the stimulus is nothing more than a recording of white noise. The duration of the test is 30s and a measure of suggestibility is taken from any increase of the baseline measure for each one of the suggested physiological sensations.

*Progressive Weights Test*. 15 identical boxes are presented to the subject (Binet, 1900). The first five boxes are progressively heavier (e.g., 3g, 5g, 10g, 15g, etc...), while the last 10 boxes have the same weight (e.g., 20g, 20g, 20g, etc.). The subject is asked to lift the boxes (one at a time and only once) beginning with the lightest box. A measure of suggestibility is attained by the subject's report of any detectable discrepancies in weight among the last 10 boxes. The total duration of the test is approximately 1 min.

### **Procedures for the administration of tertiary/prestige measures**

*Gudjonsson Suggestibility Test*. The subject is read a short story (Gudjonsson, 1987; 1984). After the story is presented to the subject he/she is asked a set of 20 questions concerning details within the story (e.g., Where did John work? Was it day or night? etc.). The subject's answers are recorded. Once all the questions have been asked, the experimenter suggests to the subject that he/she has made some

mistakes in the answers. The 20 questions are asked again. A measure of suggestion is attained if the subject changes any of his/her answers. The duration of this test is approximately 10 minutes.

*Co-judgment Suggestibility Test.* The subject is presented with two case vignettes detailing a criminal incident (Stukat, 1958). After reading each vignette, the subject is asked to give a jail sentence for each crime committed. After the subject assigns a sentence for each vignette, he/she is offered the “true” outcome of each case and is asked to consider this and re-evaluate their original sentence. A measure of suggestibility is attained if the subject changes his/her original sentence. The duration of this test is approximately 10 minutes.

*Inkblot Test.* (Eysenck and Furneaux, 1945) Subjects are presented with three Rorschach cards (cards I, II and IX) and pre-determined percepts are suggested by the experimenter. The procedure requires the subject sit in a chair facing the experimenter – who sits in front of him/her. Each card is presented separately and an unusual percept for each card is suggested (e.g., I’m going to show you some inkblots and I am going to ask you if you can see things that people usually see when they are shown these cards). Subjects are instructed to use the whole blot. For card I subjects are told that they will see an airplane, for card II subjects are told they will see a turtle, and on Card IX subjects are told they will see a hat. Each card is held for the subject to examine in silence for 30s. Though this test has been categorized in previous studies as a secondary/sensory-perceptual type (Eysenck and Furneaux, 1945), it was designed for this particular study to fit the tertiary/prestige model.

### **Scoring of the suggestibility measures**

Excluding the Odor test, the body sway test, the placebo test, the pendulum test, co-judgment suggestibility test, and the Gudjonson Suggestibility Scale all of the measures used in this study were scored dichotomously (0-Fail/1-Pass). The Odor test was scored continuously as follows: a score of 0 would be considered a “fail”, while scores of 1, 2 or 3 were passing scores (reporting an odor in the

first three bottles did not yield a score, points are given only if the participant reports a scent in any of the last three bottles). The body sway test was scored 0, 1 or 2 depending on the subjects movement backward; a score of 0 was given if the subject did not move, a score of 1 was given if the subject fell  $\frac{1}{2}$  a foot backward, and a score of 2 was given if the subject fell onto the experimenter's hands (1 foot backward). The placebo test was scored using a Likert-type scale ranging from 1 to 5. The subject's reports of changes in physiological sensation are recorded on the 1 to scale. The pendulum test was scored using a ruler to record the movement of the pendulum. Scores were recorded in centimeters. The co-judgment suggestibility test is scored by subtracting the difference between the subject's initial judgment in giving a prison sentence and the subject's subsequent judgment of the same prison sentence (following the experimenter's suggestions). The Gudjonson Suggestibility Scale was scored by adding the shift responses given by the subject after being presented with a short story.

Level of confidence of the subject's reported responses was assessed after the presentation of each measure. The subject was asked to rate the clarity of the experienced stimulus on a 1 to 5 Likert type scale (1 = extremely clear, 5 = extremely unclear). Reaction times (using a stop watch) and distance was recorded (using a ruler) in most of the secondary/sensory-perceptual measures for the purpose of distracting the subject from the true nature of the experiment. To conclude to the study subjects were asked to complete a brief questionnaire that inquired about their perceptions of the laboratory experience to address issues of experimenter compliance, previous knowledge of the measures, and perception of suggestibility or hypnotic procedures.

## METHODOLOGY

### **Research design**

The current study is a within subjects test-retest design consisting of three parts. The first part of the study involved the subject's participation in attending an in-class hypnosis presentation (Part I) in which the Harvard Group Hypnotic Susceptibility Scale (HGHSS), Form A (Shore & Orne, 1962) was administered and the subject's hypnotic ability was assessed. The second part of the study (Part II) involved the administration of fifteen suggestibility tests (see table A-3) in the laboratory. Part II of the study was considered the test phase. In the third part of the study (Part III) the subject's returned to the laboratory for a re-test session where the same 15 suggestibility tests administered in the test phase were re-administered. For both, the test and retest sessions (parts II and III) subjects completed questionnaires inquiring about their perceptions of the laboratory experience.

### **Procedures**

Data-collection for the laboratory portions of this study (Parts II and III) took place in the Psychology Department of the University of Tennessee in a well-lit, temperature-controlled, sound-proof room. Participants were individually scheduled into one hour slots in the laboratory and were informed that the experiment was a study of "sensory sensitivity" that aimed at exploring sensory thresholds using several auditory, olfactory, tactile and visual tests, so as to eliminate bias. The same was done for both laboratory sessions (test-retest). At the beginning of each session, subjects were required to sign an informed consent. To preserve the integrity of the suggestibility measures, the in-class hypnosis part of the study (Part I) was advertised as being unrelated to the subsequent laboratory



sessions (parts II and III). To ensure that students believed this, the administration of the hypnotic group scale took place on a separate day than laboratory participation and the experimenters responsible for administering the HGSS were never seen by the subjects during the subsequent parts of the experiment. Furthermore, the experimenters in Parts II and III remained blind to the subject's hypnotic ability. Also, disclosure of the true nature of the experiment was withheld from the participants through the duration of the experiment. Instead, at the end of each session subjects were provided with the contact information (name, e-mail address, telephone number and office location) of the supervising faculty member which could be contacted for debriefing at the end of the semester. All of the experimenters involved in the study were thoroughly trained on the administration of protocols and the procedures of the experiment.

For both the test and retest sessions in the laboratory presentation of the suggestibility tests was randomized across subjects. Each subject was provided with a set of instructions before the administration of the suggestibility measures. Subjects were informed that they would be presented with a series of sensory measures (tactile, olfactory, visual and auditory) where they would be asked to report back to the experimenter as soon as they could sense (smell, see, hear, or feel) the relevant stimulus. Specifically, the subjects were told that they would be presented with a stimulus (e.g., the ticking of a watch, heat from the experimenters hand, etc.) and that they should alert the experimenter as soon as they could sense it (e.g., in the black disk test, subjects were instructed to tell the experimenter as soon as they saw the suggested green dot in the middle of the disk). Thus, a measure of suggestibility was attained from the subject's determination of sensing the suggested stimulus. After the subject had been subjected to all of the suggestibility tests in each of the two laboratory sessions, they were asked to sit in a table outside of the laboratory (where the experimenter was not present) to complete a brief questionnaire. The questionnaire inquired about their willingness to fulfill the experimenter's expectations, their previous knowledge of any of the measures, and their thoughts

about what the study intended to measure. These questions were added at the end of each session to address issues of experimenter compliance and practice effects (e.g., previous experience/ideas about hypnotic and non-hypnotic tests).

## **Participants**

We tested 96 undergraduate psychology students ( $f = 55/m = 41$ ) between the ages of 18 - 32 (mean 19.28) with a standard deviation of 2.44. Participants were selected on the basis of their previous participation in attending the in-class hypnosis session (Part I) in which the subject's hypnotic ability was assessed. Recruitment for the subsequent parts of the study (Parts II and III), where the suggestibility measures were administered, was encouraged by means of a sign-up sheet requesting voluntary participation. Volunteers received 2-hour extra credit as compensation. The descriptive data of this sample was consistent with previous samples used to test the factor structure of the suggestibility measures included in this study.

PRELIMINARY ANALYSIS

**Data Management**

Though the aim of this experiment was to expand on our previous work on the subject of suggestibility (we were only concerned with determining the consistency of the 15 suggestibility tests over time), all participants were required to complete all phases of the study (Parts I, II and III), Thus The final analysis included the data collected for the participants that completed at least the test and retest sessions (parts II and Part III) of the study. All 96 participants completed the test and re-test laboratory sessions of the experiment.

In order to test our hypotheses we conducted two separate analyses of our suggestibility variables. The first analysis was purely correlational and explored the stability of the suggestibility tests across time (test-retest sessions). The second analysis was structural and explored the factor structure of the suggestibility tests administered assuming that the results would replicate our previous findings; a non-coherent factor structure of suggestibility that supports neither a unitary suggestibility trait nor clearly delineated sub-types of suggestibility. The variables were analyzed in their dichotomous form (the scores of the odor test, the body sway test, the placebo test, the pendulum test, persuasion test and the Gudjonsson Suggestibility Scale which were not dichotomously scored, were converted into dichotomous form by determining a response cutoff). To avoid artifactual findings the variables were also analyzed in continuous form. This was accomplished by collapsing all of the dichotomous scores for each of the measures with the subject's response on the certainty scale. Table 4, 5, 6 and 7 display the distributions of each item for the dichotomous and continuous variables across sessions (see

appendix IV(a), V(a), VI(a) and VII(a)). As in our previous study (Perez, et al., 2004) we modified the scores using reaction time in order to normalize the distribution curve in the tone test.

## **Correlations**

The preliminary analysis of our data revealed some significant correlations among the suggestibility variables. Excluding the light test, there were no significant correlations between the suggestibility variables and hypnotic susceptibility. Table 8 shows the correlation matrix for the dichotomous variables for the test data (see appendix VIII (a)). Within the test session, results reveal low intercorrelations between our variables. Although there were few statistically significant relationships at the .01, none of these relationships exceeded the strongest correlation of .353 between the lemon test and the odor test. The weakest relationship found was between the co-judgment test and the light test, with a Pearson correlation of -.003. Within the dichotomous variables in the retest session, results revealed low intercorrelations between our variables. Although there were few statistically significant relationships at the .01, none of these relationships exceeded the strongest correlation of .373 between the lemon test and the glass test. The weakest relationship found was between the tone test and the progressive weights test, with a Pearson correlation of .000.

Similar results were observed in the preliminary analysis of the variables in their continuous form. Once again, results of the matrix revealed low intercorrelations between variables within sessions (test and retest sessions); eighteen correlations out of two hundred and fifty five possibilities for the variables in our test session and sixty seven correlations out of two hundred and fifty five possibilities for the variables in our retest session. The strongest relationship for the test session in this case was between the light test and the lemon test with a Pearson correlation of .310 and the weakest relationship being between odor test and the glass test with a Pearson correlation of .000. Table 9 shows the correlation matrix for the continuous variables for the test data (See appendix IX (a)). The

strongest relationship for the retest session was between the light test and the glass test with a Pearson correlation of .437 and the weakest relationship being between odor test and the progressive weights test with a Pearson correlation of -.001.

## THE STABILITY OF SUGGESTIBILITY MEASURES

Excluding standardized hypnotic measures, the stability of suggestibility measures over time has not been investigated. This study concerned itself with determining the test-retest reliability of classic measures of suggestibility. Knowledge on the reliability of suggestibility tests over time will inform the literature on the construct, as well as expand on our previous factor analytic studies. To test whether the suggestibility measures included in this study are reliable over time, we took a look at the correlational data. This analysis was conducted using SPSS suite, version 16. A correlation matrix including all tests administered in the test-retest sessions revealed that the majority the measures across sessions were significantly correlated at the .01 and .05 level. This was true for the variables in their dichotomous and continuous form. However, a closer look at the matrix revealed low intercorrelations among the variables across sessions offering little support for the stability of the variables over time.

### **Correlations**

The results of the matrix revealed low intercorrelations between variables across test-retest sessions. Excluding the pendulum test and the co-judge test, all the variables in their dichotomous form were significantly correlated across the test-retest administration. However, these correlations were low suggesting that our measures were not stable across sessions. The strongest correlation within the variables in their dichotomous form corresponded to the inkblot tests ( $r=.729$ ) and the weakest relationship corresponded to the co-judge tests ( $r=.121$ ). We found similar results in the analysis of the continuously scored variables; all variables were modestly correlated across the test-retest administration suggesting that our measures were not as stable across sessions as expected. The

strongest relationship corresponded again to the inkblot tests ( $r=.754$ ) and the weakest relationship corresponded to the progressive weights tests ( $r=.284$ ). Table 10 shows the correlation matrix for the dichotomous variables across test-retest sessions (See appendix X (a)). Table 11 shows the correlation matrix for the continuous variables across test-retest sessions (See appendix XI (a)).

EXPLORATORY FACTOR ANALYSIS

Because factor analysis is a method of data reduction that seeks for underlying unobservable latent variables that are reflected in the manifest variables, we decided that to further understand our data it would be useful to test our hypotheses by subjecting our data to an exploratory method. In addition, it was important to determine if the data in our sample replicated our previous findings (Tasso et al., 2003; Perez et al., 2004). In this case we applied an exploratory factor analysis to test our hypothesized unitary or three factor structure. We used two separate statistical strategies: an exploratory approach where we allow the data to group flexibly and an exploratory approach where we set structural limits (telling it to group the variables into a determined number of factors). There are many different types of rotations that can be used when performing exploratory factor analysis. In this case we used a Varimax Rotation Method which “tries” to fit the variables into different factors. In other words, a Varimax Rotation is a form of orthogonal rotation that forces items to correlate or load with one and only one factor by imposing the restriction that the factors cannot be correlated. It is typically used with principal components analysis (Tabachnik & Fidell, 2001), but in this analysis we also used a maximum likelihood approach to test our three and one factor models. We further conducted an exploratory analysis allowing for an Oblique Rotation Method. This technique allows for a more “lax” loading of factors, meaning that the model will not “try” to fit the variables into different factors by allowing them to correlate. We used SPSS suite, version 16 to perform our analysis. We conducted exploratory factor analysis with our variables in both, their dichotomous and continuous form; and for each one of our sessions (test/re-test data).



## **Exploratory factor analysis of the dichotomous variables**

In our previous factor analytic studies (Tasso et al., 2003; Perez et al., 2004), none of the “a priori” hypothesized models emerged in our initial exploratory analysis of the dichotomous variables. Though it seemed unlikely that a coherent factor structure would emerge in the current study, we conducted factor analysis to determine if the findings of our previous factor analytic investigations would be replicated.

In the analysis of our variables using a flexible approach an eight factor structure emerged – half as many factors as variables. The watch test and the odor test and the lemon test loaded on factor 1, accounting for 11.196% of the variance; the hand test, the progressive weight test, the co-judge test and the Gudjonson Scale loaded on factor 2, accounting for 9.639% of the variance; the glass test, the tone test and the placebo test loaded on the third factor, accounting for 9.556 % of the variance; The hand test, the odor test, the glass test and the inkblot test loaded on factor 4, accounting for 9.497% of the variance; the watch test, the body sway test and the progressive weights test loaded on factor 5, accounting for 9.285% of the variance; hypnosis and the black disk test loaded on factor 6, accounting for 9.011% of the variance; hypnosis, the glass test and the light test loaded on factor 7, accounting for 8.581% of the variance; the glass test, the pendulum test and the co-judge test loaded on factor 8, accounting for 8.401% of the variance. These findings do not support our hypothesized factor structures. Table 12 shows the communalities among the variables, table 13 explains the total variance among the emerging factors, table 14 provides the component matrix of the initial solution for the exploratory factor analysis of the dichotomous variables for the test data and table 15 depicts the rotated component matrix (See appendix XII(a), XIII(a), XIV(a) and XV(a)).

To test the hypothesized three factor structure (e.g., a three-factor structure where each factor corresponds to one of three categories: Primary/Direct-ideomotor, Secondary/Sensory-perceptual, or Tertiary/Prestige), we set the limit of our exploratory analysis to 3 factors rather than allowing for

flexibility in the factor extraction. This technique will attempt to fit the variables in only 3 factors applying a maximum likelihood technique. The Hand test, the Glass test, the Lemon test, the Inkblot test and the Odor test loaded on factor 1, accounting for 11.123% of the variance; Hypnosis, the Black Disk Test, the Tone test, the Body Sway test and the Placebo test loaded on factor 2, accounting for 8.516% of the variance; and the Gudjonson Scale and the Odor test loaded on factor 3, accounting for 6.488% of the variance. The Watch test, the Light test, the Pendulum test, the Progressive Weights test and the Co-judgment test did not load on any of the factors because correlations under .30 were excluded in order to simplify reading (low correlations that are probably not meaningful). Though all except five of the variables loaded on our three factors, the goodness of fit test did not support a three factor structure (Chi-square of 56.096, degrees of freedom of 63, Sig. of .719). Further, the loadings on each one of the three factors were low and the three factors did not follow the hypothesized model. Table 16 shows the communalities among the dichotomous variables for the 3 factor model, table 17 explains the total variance among the emerging factors, table 18 provides the component matrix of the initial solution for the 3 factor exploratory factor analysis of the dichotomous variables and table 19 depicts the rotated component matrix for the emerging three-factor model (See appendix XVI(a), XVII(a), XVIII(a) and XIX(a)).

To test our hypothesized unitary factor structure of suggestibility we set the limit of our exploratory analysis to only 1 factor and applied a maximum likelihood approach. In this case the Hand test, the Lemon test, the Gudjonson Scale, the Placebo test, the Inkblot test and the odor test loaded on factor 1, accounting for 11.337% of the variance; once again all loadings under .30 were excluded. Only six out of 16 variables loaded on our single factor structure. Further, the goodness of fit test did not support a one factor structure (Chi-square of 98.969, degrees if freedom of 104, sig. of .621). As in our previous studies these findings did not support a unitary factor structure of suggestibility. Exploratory analysis of our variables using an Oblique Rotation Method also failed to

support any of our three hypothesized models. Similar results emerged in the exploratory factor analysis of our retest data for the variables in their dichotomous form. Our sample met minimum requirements on the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) with a .475 and passed the Bartlett's Test of Sphericity with a Chi-Sq of 135.82 and degrees of freedom of 120. Table 20 shows the communalities among the dichotomous variables for the one factor model, table 21 explains the total variance among the emerging factors, table 22 provides the component matrix of the solution for the one factor exploratory analysis of the dichotomous variables (See appendix XX(a), XXI(a) and XXII(a)).

### **Exploratory factor analysis of the continuous variables**

In the analysis of the continuous variables using a flexible approach, all of our hypothesized structures failed to be supported. Instead a seven factor structure emerged – again almost half as many factors as variables. The Hand test, the Watch test, the Odor test, the Glass test, the Body Sway test and the Co-judge test loaded on Factor 1, accounting for 12.312% of the variance; the Hand test, the Light test, the Lemon test and the Gudjonson scale loaded on Factor 2, accounting for 11.895% of the variance; the Hand test, the Tone test, the Body Sway test and the Placebo test loaded on factor 3, accounting for 11.731% of the variance; the Odor test, the Lemon test, the Body Sway test, the Progressive Weights test and the Gudjonson Scale loaded on factor 4, accounting for 9.869% of the variance; the Watch test, the Black Disk test and the Inkblot test loaded on factor 5, accounting for 9.176% of the variance; Hypnosis and the Light test loaded on factor 6, accounting for 9.152% of the variance; and the Pendulum test and the Inkblot test loaded on factor 7, accounting for 8.680% of the variance. These findings do not support a coherent factor structure. Table 23 shows the communalities among the variables, table 24 explains the total variance among the emerging factors, table 25 provides

the component matrix of the exploratory factor analysis for the “initial solution” for the model and table 26 depicts the rotated component matrix (See appendix XXIII(a), XXIV(a), XXV(a) and XXVI(a)).

In the analysis of our three factor structure (e.g., a three-factor structure where each factor corresponds to one of one of three categories: Primary/Direct-ideomotor, Secondary/Sensory-perceptual, or Tertiary/Prestige) the Hand test, the Glass test, the Light test, the Lemon test, the Progressive Weights test, the Gudjonson test, the Placebo test and the Inkblot test loaded on factor 1, accounting for 14.077% of the variance; the Tone test and the Placebo test loaded on factor 2, accounting for 8.122% of the variance; and the Black Disk test, the Odor test, the Lemon test, the Body Sway test and the Progressive Weights test loaded on factor 3, accounting for 7.151% of the variance. The Watch test, Hypnosis, the Pendulum test and the Co-judgment test did not load on any of the factors because correlations under .30 were excluded (low correlations that are probably not meaningful). Though all except four of the variables loaded on the three factors, the goodness of fit test did not support a three factor structure (Chi-Square of 65.332, degrees of freedom of 75, Sig. of .780). Further, the loadings on each one of the three factors were low and the three factors did not follow the hypothesized model. Table 27 shows the communalities among the variables, table 28 explains the total variance among the emerging factors, table 29 provides the component matrix of the initial solution for the 3 factor exploratory analysis and table 30 depicts the rotated component matrix for the emerging three-factor model (See appendix XXVII(a), XXVIII(a), XXIX(a) and XXX(a)).

In the analysis of a unitary factor structure with our continuous variables we found that the Hand test, the Watch test, the Glass test, the Lemon test, the Co-judge test, the Gudjonson test, the Inkblot test and the Odor test loaded on Factor 1 accounting for 14.151% of the variance. Once again, all loadings under .30 were excluded. As in our previous studies, these findings did not support a unitary-single factor structure of suggestibility (Chi square of 92.031, degrees of freedom of 104, Sig. of

.793). As it did in the analysis of the dichotomous variables, the application of an Oblique Rotation Method did not yield any support for our hypotheses in this case. Similar results emerged in the analysis of the continuous variables for the retest data. Our sample met minimum requirements on the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) with a .457 and passed the Bartlett's Test of Sphericity with a Chi-Sq of 128.58 and degrees of freedom of 120. Table 31 shows the communalities among the variables, table 32 explains the total variance among the emerging factors, table 33 provides the component matrix of the one factor exploratory analysis (See appendix XXXI(a), XXXII(a) and XXXIII(a)).

## *Chapter 9*

### RELIABILITY ANALYSIS

Considering our results of the structural analyses in this study and the low intercorrelations of our variables across test-retest sessions, it was implausible that a reliability analysis would have yielded any support for an omnibus suggestibility scale for neither our test-retest data. Yet, we proceeded to perform such an analysis for both our scoring conditions and for the data generated in both sessions to further support our findings and inform our previous findings on the so-called suggestibility construct. Hypnosis was excluded from this analysis due to the dearth of correlations with all other suggestibility variables.

As suspected, the reliability analysis of our data for all of the scoring conditions (dichotomous and continuous) did not reveal a reliable omnibus suggestibility scale. Results for our reliability analysis of the dichotomous variables for our test data with a total of fifteen items, yielded a Cronbach's Alpha of .488, increased only to .538 by the deletion of the co-judge test, watch test, progressive weights test and the tone test. Such results do not support a highly reliable scale. Results for our reliability analysis of the dichotomous variables for our retest data with a total of fifteen items, yielded a Cronbach's Alpha of .569, increased only to .687 by the deletion of the tone test, co-judge test, progressive weights, pendulum test, body sway test and inkblot test once again failing to support the notion of a highly reliable scale.

Results for our reliability analysis of the continuous variables for our test data with a total of fifteen items, yielded a Cronbach's Alpha of .558, increased only to .610 by the deletion of the co-judge test and the black disk test. Results for our reliability analysis of the continuous variables for our re-test data with a total of fifteen items, yielded a Cronbach's Alpha of .660, increased to .747 by the

deletion of the tone test, co-judge test, progressive weights and Gudjonson scale. As in our previous analyses, the reliability of the continuous variables for our test data did not support a reliable omnibus suggestibility scale. Yet, the results of the reliability analysis of our continuous variables for the retest data did at a modest .747 level. However, this was attained only by excluding four of the administered suggestibility tests.

Table 34 depicts the reliability and item-total statistics for our analysis of the dichotomous variables for the test data, table 35 depicts the reliability and item-total statistics for our analysis of the dichotomous variables for the retest data, table 36 shows the reliability and item-total statistics for our analysis of the continuous variables for the test data and table 37 depicts the reliability and item-total statistics for our analysis of the continuous variables for the retest data (See appendix XXXIV(a), XXXV(a), XXXVI(a) and XXXVII(a)).

## *Chapter 10*

### MISCELANEOUS ANALYSIS

Because the literature has used the construct of suggestion and suggestibility so loosely, there are several theorists that believe that a response by a person to any given suggestion can be related to the effects of compliance in relation to a figure of authority (e.g., MacDougall, 1908), expectation (e.g., Gheorgiu & Reyher, 1982; Kirsh, 1999, etc.). Also, questions have been raised regarding the effects of the subject's knowledge or awareness of being submitted to measures of suggestibility in the laboratory (e.g., not concealing the true nature of a suggestibility measure). This is particularly important in this study since subjects were subjected to the same suggestibility tests at two points in time. An inherent concern in test-retest designs is the possibility of learning/practice effect, thus the notion of the subject 'catching on' to the real purpose of the study could have implications on the interpretation of our reliability analysis. In order to briefly address such possible confounds in our data, we administered a seemingly anonymous questionnaire to each one of the subjects tested at the conclusion of each laboratory session that included four relevant questions. This questionnaire was presented to the subjects as a task that pertained to a different study to which the experimenter had no access. This was done to provide the subjects with a sense of privacy that we thought would allow for greater reliability in their responses.

The first question intended to inquire about the subject's knowledge of the true nature of the measures administered (e.g., what did you think the study was about?). Descriptive statistics indicated that after the test session 84.4% (n=66) of the participants thought the study was about sensory sensitivity or sensory threshold detection in agreement with how the study had been advertised, 15.2% of the participants thought the study was related to suggestibility or hypnosis. After the retest session,



91.5% (n=71) reported thinking that the study was about sensory sensitivity or measuring sensory thresholds, 8.5% reported thinking it was about suggestibility or hypnosis. These percentages seem to suggest that subjects did not change their thoughts about the purpose of the study from one session to the next. The second question inquired about the subject's tendency to react to the experimenter during the administration of the measures (e.g., did you respond to any of the measures in order to fulfill the experimenter's expectations?). For the test session descriptive data revealed that 11.6% reported sensing or not sensing a stimulus as a result of their desire to please the experimenter, while 88.4% did not. Following the retest session, 9.9% reported sensing or not sensing a stimulus in order to fulfill the experimenter's expectations; 90.1% did not. The third and final question included in the questionnaire inquired about the subject's previous knowledge of the administered measures (e.g., have you ever heard of any of the tests that you took today?). In this case, 43.5% reported having previous knowledge of one of the measures administered (the measures reported varied across subjects) after the test session. Further, we asked subjects how comfortable they felt during the laboratory sessions; 53.6% reported feeling comfortable during the test session and 71.8% reported feeling comfortable during the re-test session.

Although it is unlikely that any of these factors could change the results obtained through the extensive analysis of our data, or that they would have a major impact on the structural implications of the factor analyses, we are unable to confirm such assumptions in this paper. To address concerns regarding these possible confounds it would be necessary to conduct analysis of variance to investigate if these social variables could have had a significant impact on the responses to the tests administered in this study. Our data was not subjected to this type of analysis. What we can do given the low changes in percentage across sessions for all four questions, is hypothesize that subjects responses are not likely to be affected by previous exposure to the suggestibility measures. In fact, it appears that

they might feel more comfortable during a second administration rather than highly inclined to respond in favor of the experimenter's expectations.

## CONCLUSIONS AND DISCUSSION

The focus of research on “suggestion” and “suggestibility” has for a long time, aimed at exploring the boundaries and underlying factors of the construct. Over the years, scientists that have conducted studies along these lines have revealed at best, equivocal findings that have failed to clarify what lies within and outside this phenomenon. While some studies seem to support the existence of different types of suggestion, others have failed to reach such conclusions. Therefore, it is timely to take a fresh empirical look at this construct using contemporary statistical methodology in order to address the subject of suggestion and suggestibility comprehensively. Building on two previous studies that did precisely this (Tasso, et al., 2003; Perez, et al., 2004), the present study narrowed its scope by investigating the stability of suggestibility measures over time. Further we applied factor analytic methodologies to address once again, the empirical question concerning the domain of the construct.

In this study, we tested two hypothesized structural models by applying factor analytic methodologies. Our first hypothesized model consisted of a one-factor structure or “g” factor of suggestibility. The results yielded by our analysis of the data found no support for a unitary trait or “g” factor of suggestibility. Besides negating the notion of suggestibility as a single construct, we can also reject the notion that it can be reduced to a clearly delineated factor structure. Actually, it is more likely that the way in which a person responds to a given suggestibility measure (e.g., odor test) is not predictive of how a person will respond to any other measure (e.g., tone test). This is also supported by the findings of our reliability analysis. In fact, although the construct has been evoked time and time again in the literature as if it were a unitary construct; the assumption that a persons’ ability or likelihood to respond to suggestions is quantifiable stands challenged by our findings.

It must be noted that this study does not deny the possibility that a person may use similar underlying psychological factors to respond to particular suggestions. After all, the mechanisms for each of the measures used in this experiment (e.g., olfaction, sight, touch, etc.) could rely on several psychological factors that are not considered in this particular study. Because historically measures of suggestibility have not always “held together” in determined subtypes (e.g., Eysenck & Furneaux, 1945; Stukat, 1958; Duke, 1961; Hammer et al., 1963), the possibility exists that whatever the communalities between these types of measures appears to be less salient than their differences. Also, we cannot exclude the possibility that the communalities of such measures could weigh more heavily on the role of the subject rather than on the measures themselves. Authors that pioneered research in the area of “sensory suggestibility” (Gheorghiu & Reyher, 1982) have hinted at such considerations by offering what could be considered as an extension to the standing definitions of “suggestion” and “suggestibility” by including the subject’s role in the experience of suggestive phenomena. Yet, due to the nature of our statistical analysis we can only address issues concerning the structure of the construct.

Our second hypothesized model involved the emergence of three types of suggestions; primary/direct-ideomotor, secondary/sensory-perceptual and tertiary/prestige. Our results also failed to support this three-factor structure of suggestibility. The assumption that there are clearly delineated types of suggestibility does not appear to have any bearing. Further, we can conclude that the way in which a subject responds to a suggestion of a “so-called” primary/direct-ideomotor, secondary/sensory-perceptual or tertiary/prestige type, does not predict the way in which the subject will respond to another test of the same type.

The third and final question addressed in our study involved testing the stability of suggestibility measures over time. Our findings do not support the notion of stability for the 15 suggestibility measures. It seems that the way in which a subject responds to a given suggestibility test

at one point (e.g., Body Sway test, Light test, Odor test, etc.) in time has little to do with how they respond at any other point in time. This supports the idea that whatever the communalities between these types of measures appear to be less salient than their differences and that the way in which a person responds to such measures could weigh more heavily on the role of the subject rather than on the measures themselves.

In conclusion, based on our findings (as it was concluded by Tasso et al., 2003 for the larger picture of suggestions and Perez, et al., 2004 for the so-called subtype of sensory suggestibility) there is no empirical evidence to support the notion of a “g” factor of suggestibility. Also, there is no evidence to support that suggestibility can be categorized into any clearly delineated factor structure (e.g., primary/direct-ideomotor, secondary/sensory-perceptual and tertiary/prestige). Therefore, caution should be used when evoking the construct of suggestibility as a blanket construct. Further, labeling the reduction of the construct into categories based on the mechanisms of the measures utilized should be done only when it is specified that such labels do not necessarily account for different aspects of suggestibility.

### **Limitations of the present study and future directions**

This design is not lacking in limitations. Therefore, it is important that the construct of “suggestibility” is further explored. Though we replicated our previous findings using factor analytic methodologies (Tasso, et al., 2003; Perez, et al., 2004) not all known measures of suggestibility were included in our design, thus factor analytic methodologies should be attempted with a larger set of variables. In addition, though this study addressed the stability of the measures over time it is important to note that subjects could have figured out that the measures were in fact suggestibility measures rather than measures of sensory sensibility (as they were told at the outset of the study). Excluding the miscellaneous analysis where we inquired about the subject’s thoughts concerning the

purpose of the study, we did not conduct any analysis to rule out the subjects thoughts as influencing the way they responded to the measures across test-retest sessions. Further, because this experiment took place in a university campus where the populations are homogenous, it would be important to test these hypotheses using a more generalizable sample population.

The future direction of suggestibility research should involve a greater investment in defining the term. Actually, it could be productive to explore each of the domains of suggestion (e.g., placebo, conformity, interrogative suggestibility, etc.) in a similar fashion as sensory measures were explored in our previous experiment (Perez, et al., 2004). By using a deconstructive approach of what has been grouped together in the literature as being related, we might uncover the intricacies of such a construct and gain some understanding of its utility in psychological science. Hence, it is also important to broaden the aims of the research scope in this area by exploring perhaps, the more subtle qualities of the construct. As it was suggested in the discussion section of this paper, it is possible that by focusing on other components such as the preamble or the role of the subject rather than on the measures themselves, we could acquire greater knowledge on what lies within and outside the construct of “suggestion” and “suggestibility”.

## BIBLIOGRAPHY

- Abraham, H. L. The Suggestible Personality: A Psychological Investigation of Susceptibility to Persuasion. *Acta Psychologica – Amsterdam*, 20 (2), pp. 167-184, 1962.
- Allport, G. (1937). *Personality*. New York, Holt.
- Arbuckle, J.L. & Wothke, W. (1999). *Amos 4.0 user's guide*. Chicago: SPSS/Small Waters.
- Asch, S.E. (1951). Effects of group pressure upon the modification and distortion of judgments. In H. Guetzkow (Ed.), *Groups, leadership, and men*. Pittsburgh: Carnegie Press.
- Asch, S.E. (1955). Opinions and social pressure. *Scientific American*, 193, 31-35.
- Aveling, F. & Hargreaves, H. L. (1921). Suggestibility with and without prestige in children. *British Journal of Psychology*, 12, 53-75.
- Baker, S.L. & Kirsch, I. (1993). Hypnotic and placebo analgesia: Order effects and the placebo label. *Contemporary Hypnosis*, 10, 117-126.
- Balthazard, C.G. and Woody, E.Z. The “Stuff” of Hypnotic Performance: A Review of Psychometric Approaches. *Psychological Bulletin*, 98(2), pp. 283-296, 1985.
- Barber, T.X. (1959). Towards a theory of pain: Relief of chronic pain by prefrontal leucotomy, placebos, and hypnosis. *Psychological Bulletin*, 56, 430-460.
- Barber, T.X. (1969). *Hypnosis: A Scientific Approach*. New York, Nostrand.
- Bearden, W.O., Netemeyer, R.G., & Teel, J.E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of Consumer Research*, 15, 473-481.
- Beaumont, M. (1987). Confessions, cautions, experts and the sub-normal after R vs Silcott and others. *New Law Journal*, 28, 807-814.
- Benton, A.L. & Bandura, A. (1953). “Primary” and “secondary” suggestibility. *Journal of Abnormal and Social Psychology*, 48, 336-340.
- Bernheim, H (1886). *Suggestive therapies: A treatise on the nature and uses of hypnotism*. New York: G. P. Putman's Sons.



- Bernheim, H. (1889). *Automatisme et suggestion*. Congress for Physiological Psychology, Paris: Schleicher.
- Binet, A. (1900). *La suggestibilite*. Paris: Schleicher.
- Bird, C. (1940). *Social psychology*. New York: Appleton Century.
- Bowers, K.S. (1983). *Hypnosis for the seriously curious*. New York: Norton.
- Braffman, W. & Kirsch, I. (1999). Imaginative suggestibility and hypnotizability: An empirical analysis. *Journal of Personality & Social Psychology*, 77(3) 578-587.
- Brown, W. (1916). Individual and sex differences in suggestibility. *University of California Psychology*, 2, 291-430.
- Burt, H.E. (1931). *Legal psychology*. NY: Prentice-Hall.
- Cautela, J. and McLaughlin, D. The Influence of Suggestion on the Audioatokinetic Effect. *Journal of Psychology*, 60, pp. 117-122, 1965.
- Ceci, S.J. & Bruck, M. (1993). Suggestibility of the child witness: A historical review and synthesis. *Psychological Bulletin*, 113, 2, 403-439.
- Council, J. R. and Loge, D. Suggestibility and Confidence in False Perceptions: A Pilot Study. *British Journal of Experimental and Clinical Hypnosis*, 5(2), pp. 95-98, 1988.
- Critelli, J.W. & Neuman, K.F. (1984). The placebo: Conceptual analysis of a concept in transition. *American Psychologist*, 39, 32-39.
- Charcot, J.M. (1882). An different nervous states as they appear when hysterics are hypnotized. *Biweekly Accounts of the Meetings of the Academy of Sciences*, 94, 403-405.
- Crowne, D.P. & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 4, 349-354.

- De Pascalis, V. (1989). Hypnotic susceptibility, alpha waves and 40-Hz EEG rhythm, and personality. In V.A. Gheorghiu, P. Netter, H.J., Eysenck, H.J. & Rosenthal, R. (Eds.). *Suggestion and suggestibility: Theory and Research* (pp. 221-239). Berlin: Springer-Verlag.
- De Pascalis, V., Ray, W.J., Tranquillo, I., & D'Amico, D. (1998). EEG activity and heart rate during recall of emotional events in hypnosis: Relationships with hypnotizability and suggestibility. *International Journal of Psychophysiology*, 29, 255-275.
- Duke, J.D. (1961). A study of the relationships between primary suggestibility, secondary suggestibility and placebo reactivity. Unpublished doctoral dissertation, University of North Carolina.
- Duke, J.D. (1964). Intercorrelational status of suggestibility tests and hypnotizability. *Psychological Record*, 14, 71-80.
- Duke, J.D. (1964) Placebo Reactivity and Tests of Suggestibility. *Journal of Personality*, 32(2), 227-235.
- Edmonston, W. E. (1989). Conceptual clarification of hypnosis and its relationship to suggestibility. In V.A. Gheorghiu, P. Netter, H.J., Eysenck, H.J. & Rosenthal, R. (Eds.). *Suggestion and suggestibility: Theory and Research* (pp. 69-78). Berlin: Springer-Verlag.
- Estabrooks, G. H. (1929). Experimental studies in suggestion. *Journal of Genetic Psychology*, 36, 120-139.
- Evans, F.J. (1966). The structure of hypnosis: A factor analytic investigation. Unpublished doctoral dissertation, University of Sydney.
- Evans, F.J. (1967). Suggestibility in the normal waking state. *Psychological Bulletin*, 67, 114-129.
- Evans, F.J. (1989). The independence of suggestibility, placebo response, and hypnotizability. In V.A. Gheorghiu, P. Netter, H.J., Eysenck, H.J. & Rosenthal, R. (Eds.). *Suggestion and suggestibility: Theory and Research* (pp. 145-154). Berlin: Springer-Verlag.
- Eysenck, H.J. (1943). Suggestibility and hysteria. *Journal of Neurology and Psychiatry*, 6, 22-31.

- Eysenck, H.J. (1947). Dimensions of personality. London, Routledge & Kegan Paul.
- Eysenck, H.J. & Furneaux, W.D. (1945). Primary and secondary suggestibility: An experimental and statistical study. *Journal of Experimental Psychology*, 35, 485-503.
- Farthing, W.G., Brown, S.W. and Venturino, M. (1982) Effects of Hypnotizability and Mental Imagery on Signal Detection Sensitivity and Response Bias. *International Journal of Clinical and Experimental Hypnosis*, 30(36), 289-305.
- Freud, S. (1910). The origin and development of psychoanalysis. *American Journal of Psychology*, 21, 181-218.
- Gheorghiu, V.A., Polczyk, R. and Kappeller, C. (2003). The Warmth Suggestibility Scale – A Procedure for Measuring the Influence of Suggestion on Warm Sensations. *Personality and Individual Differences*, 34(2), 219-231.
- Gheorghiu, V. A. and Reyher, J. (1982). The Effect of Different Types of Influence on a “indirect-direct” Form of a Scale of Sensory Suggestibility. *American Journal of Clinical Hypnosis*, 24(3), 191-199.
- Gheorghiu, V.A., Koch, E., Fialkovski, H., Peiper, W., & Molz. G. (2001). Factors influencing the illusion of warmth. *Contemporary Hypnosis*, 18, 21-31.
- Grimes, F.V. (1948). An experimental analysis of the nature of suggestibility and of its relation to other psychological factors. *Studies in Psychology and Psychiatry at the Catholic University of America*, 7, 4.
- Grimm, L. G & Yarnold, P. R. (1998). Reading and understanding more multivariate statistics. Washington, DC: American Psychological Association.
- Gudjonsson, G.H. (1984). A new scale of interrogative suggestibility. *Personality and Individual Differences*, 5, 3, 303-314.

- Gudjonsson, G.H. (1987a). A parallel form the Gudjonsson Suggestibility Scale. *The British Journal of Clinical Psychology*, 26, 215-221.
- Gudjonsson, G.H. (1987b). Historical background to suggestibility: How interrogative suggestibility differs from other types of suggestibility. *Personality and Individual Differences*, 8(3), 347-355.
- Gudjonsson, G.H. (1988). The relationship of intelligence and memory to interrogative suggestibility: The importance of range effects. *British Journal of Clinical Psychology*, 27, 185-187.
- Gudjonsson, G.H. (1989). Compliance in an interrogative situation: A new scale. *Personality and Individual Differences*, 10(5), 535-540.
- Gudjonsson, G.H. (1990). The relationship of intellectual skills to suggestibility, compliance, and acquiescence. *Personality and Individual Differences*, 11, 227-231.
- Gudjonsson, G.H. & Clare, C.H. (1995). The relationship between confabulation and intellectual ability, memory, interrogative suggestibility, and acquiescence. *Personality and Individual Differences*, 19, 333-338.
- Gudjonsson, G.H. & Clark, N. (1986). Suggestibility in police interrogation: A social psychological model. *Social Behavior*, 1, 83-104.
- Gwynn, M.I. & Spanos, N.P. (1996). Hypnotic responsiveness, nonhypnotic suggestibility, and responsiveness to social influence. In Kunzendorf, R.G. Spanos, N.P., & Wallace, B. *Hypnosis and imagination* (pp.147-175). Amityville, NY: Baywood Publishing.
- Hajek, P. and Spacek, J. (1987). Territory, hypnotic susceptibility and social influence: A pilot study. *British Journal of Experimental and Clinical Hypnosis*, 4(2), 115-117.
- Hammer, A.G., Evans, F.J., & Bartlett, M. (1963). Factors in hypnosis and suggestion. *Journal of Abnormal and Social Psychology*, 67, 15-23.
- Heap, C., & Nash, M. R. (2001). Changing beliefs about the past: Exploring mechanisms of the imagination inflation effect. *Learning, Memory, and Cognition*, 27, 920-930.

- Hilgard, E.R. (1973). The domain of hypnosis, with some comments on alternative paradigms. *American Psychologist*, 28, 972-982.
- Hilgard, E.R. (1991). Suggestibility and suggestions as related to hypnosis. In J. Schumaker (Eds.), *Human Suggestibility* (pp. 37-58). New York: Routledge.
- Hoijsink, H., Rooks, G. and Wilmsink, F.W. (1999). Confirmatory Factor Analysis of Items With a Dichotomous Response Format Using the Multidimensional Rasch Model. *Psychological Methods*, 4(3), 300-314.
- Holliday, R.E., Hayes, V.F. & Reyna, B.K. (2002). Memory processes underlying misinformation effects in child witnesses. *Developmental Review*, 22, 1, 37-77.
- Hull, C.L. (1929). Quantitative methods of investigating waking suggestion. *Journal of Abnormal and Social Psychology*, 24, 153-169.
- Hull, C.L. (1933). *Hypnosis and suggestibility*. Appleton-Century-Crofts, New York.
- Hull, C. L., & Forster, M. C. (1932). Habituation and perseverational characteristics of two forms of indirect suggestion. *Journal of Experimental Psychology*, 15, 700-715.
- Hyman, E.G., Husband, T.H., & Billings, F. J. (1995). False memories of childhood experiences. *Applied Cognitive Psychology*, 9, 181-197.
- James, W. (1902). *The varieties of religious experience*. New York: Longmans-Green & Co.
- Janet, P. (1925/1919). *Psychological healing: A historical and clinical study*. English translation by E. Paul & C. Paul. New York: The Macmillan Co.
- Jones, B. and Spanos, N.P. (1982). Suggestions for Altered Auditory Sensitivity, the Negative Subject Effect and Hypnotic Susceptibility: A Signal Detection Analysis. *Journal of Personality and Social Psychology*, 43(3), 637-647.
- Kihlstrom, J. F. (1994). Exhumed memory. In S. J. Lynn & N. P. Spanos (Ed.), *In truth and memory* (pp. 3-31). New York: Guilford Press.

- Kirsch, I. (1985). Response expectancy as a determinant of experience and behavior. *American Psychologist*, 40, 1189-1202.
- Kirsch, I. (1997). Suggestibility or hypnosis: What do our scales really measure? *International Journal of Clinical and Experimental Hypnosis*, 45, 212-225.
- Kirsch, I. (2000). Hypnosis and placebos: Response expectancy as a mediator of suggestion effects. In V. D. Pascalis, V. A. Gheorghiu, P. W. Sheehan, & I. Kirsch (Eds.), *Suggestion and suggestibility: Theory and research*. (Hypnosis International Monographs Number 4; pp. 229-243). Munich, Germany: M.E.G.-Stiftung, Konradstr.
- Kirsch, I. & Braffman, W. (2001). Imaginative suggestibility and hypnotizability. *American Psychological Society*, 57-61.
- Kirsch, I. & Council, J.R. (1992). Situational and personality correlates of hypnotic responsiveness. In Fromm, E & Nash, M.R. (Ed.), *Contemporary Hypnosis Research* (pp. 267-291), New York: Guilford Press.
- Kunzendorf, R.G., Spanos, N.P. and Wallace, B. (1996). Hypnotic Responsiveness, Nonhypnotic Suggestibility, and Responsiveness to Social Influence. *Hypnosis and Imagination* (pp. 147-175), Amityville, NY: Baywood Printing Company.
- Levine, J.D., Gordon, N.C., Jones, R.T., & Fields, H.L. (1978). The narcotic antagonist naloxone enhances clinical pain. *Nature*, 272, 826-827.
- Lindberg, B.J. (1940). Suggestibility in Different Personality Types. *American Journal of Psychology*, 53, 99-108.
- Loftus, E.F. (1979). *Eyewitness testimony*. London: Harvard University Press.
- Loftus, E.F. (1993). The reality of repressed memories. *American Psychologist*, 48, 518-537.
- Loftus, E.F. & Pickrell, J. (1995). The formation of false memories. *Psychiatric Annals*, 25, 720-724.

- Lundh, L. G. (2000). Suggestion, suggestibility, and the placebo effect. In V. D. Pascalis, V. A. Gheorghiu, P. W. Sheehan, & I. Kirsch (Eds.), *Suggestion and suggestibility: Theory and research*. (Hypnosis International Monographs Number 4; pp. 71-90). Munich, Germany: M.E.G.-Stiftung, Konradstr.
- Lynn, S. J., Malinoski, P., Marmelstein, L., Stafford, J., & Green, J. P. (2000). Autobiographical memories, hypnotizability, and suggestion. In V. D. Pascalis, V. A. Gheorghiu, P. W. Sheehan, & I. Kirsch (Eds.), *Suggestion and suggestibility: Theory and research*. (Hypnosis International Monographs Number 4; pp. 211-228). Munich, Germany: M.E.G.-Stiftung, Konradstr.
- MacDougall, W. (1908). *Introduction to social psychology*. Methuen, London.
- Malinoski, P.T. & Lynn, S.J. (1999). The plasticity of early memory reports: Social pressure, hypnotizability, compliance, and interrogative suggestibility. *International Journal of Clinical and Experimental Hypnosis*, 47, 320-345.
- Maslow, A. H. (1939). Dominance, personality, and social behavior women. *Journal of Psychology*, 10, 3-39.
- McConkey, K. M. (1992). The effects of hypnotic procedures on remembering: The experimental findings and their implications. In E. Fromm & M. R. Nash (Eds.), *Contemporary hypnosis research* (pp. 405-426). New York: Guildford Press.
- McGlashan, T.H., Evans, F.J., & Orne, M.T. (1969). The nature of hypnotic analgesia and placebo response to experimental pain. *Psychosomatic Medicine*, 31, 227-246.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371-378.
- Milgram, S. (1963). Behavioral study of obedience. *Journal of Abnormal and Social Psychology*, 67, 371-378.

- Moreno, M.I.C., Garcia, M.I.D., Pareja, M.A.V. (1999). Cognitive factors in chronic pain. *Psychology in Spain*, 3(1), 75-87.
- Nash, M.R. (1987). What, if anything, is regressed about hypnotic age regression? *Psychological Bulletin*, 102, 42-52.
- Nash, M.R., Drake, S.D., Wiley, S., Khalsa, S., & Lynn, S. J. (1986). The accuracy of recall by hypnotically age regressed subjects. *Journal of Abnormal Psychology*, 95, 298-300.
- Orne, M. T. (1962). On the social psychology of the psychological experiment: With particular reference to demand characteristics and their implications. *American Psychologist*, 17, 776-783.
- Otis, M. (1923). A study of suggestibility in children. *Archives of Psychology*, 11, 1-108.
- Pavlov, I. P. (1941). *Lectures of conditioned reflexes, Vol. II. Conditioned reflexes and psychiatry.* New York, US: International Publishers.
- Ross, S. & Buckalew, L.W. (1983). The placebo as an agent in behavioral manipulation: A review of problems, issues, and affected measures. *Clinical Psychology Review*, 3, 457-471.
- Saltzstein, H.D. & Sandberg, L. (1975). The relative effectiveness of direct and indirect persuasion. *The Journal of Psychology*, 91, 39-48.
- Scott, W.D. (1910). Personal differences in suggestibility. *Psychological Review*, 17, 147-154.
- Scullin, M.H. & Ceci, S.J. (2001). A suggestibility scale for children. *Personality and Individual Differences*, 30, 843-856.
- Siegler, R.S. (1992). The Other Alfred Binet. *Developmental Psychology*, 28(2), 179-190.
- Sherif, M. (1936). *The psychology of social norms.* New York: Harper.
- Shobe, K. K., & Kihlstrom, J. F. (2002). Interrogative suggestibility and “memory work.” In M.L. Eisen (Ed.), *Memory and suggestibility in the forensic interview.* (Personality and clinical psychology series; pp. 309-327). Mahwah, NJ: Lawrence Erlbaum Associates.



- Shor, R. E., & Orne, E. C. (1962). *Harvard Group Scale of Hypnotic Susceptibility*. Palo Alto, CA: Consulting Psychology Press.
- Spanos, N. P., Perlini, A.H., & Lynda, A. (1989). Hypnosis, suggestion, and placebo in the reduction of experimental pain. *Journal of Abnormal Psychology*, 98, 285-293.
- Steele, C.M (1971). The indirect and supererogatory indirect influence of a persuasive message. Unpublished doctoral dissertation, Ohio State University.
- Steele, C.M. & Ostrom, T.M. (1974). When is indirect persuasion more effect than direct persuasion? *Journal of Personality and Social Psychology*, 29(6), 737-741.
- Stukát, K.G. (1958) *Suggestibility: A factorial and experimental analysis*. Stockholm: Almqvist & Wiksell.
- Towne, C. H. (1916). An experimental study of suggestibility. *Psychological Clinic*, 10, 1-12.
- Trouton, D. S. (1957). Placebos and their psychological effects. *Journal of Mental Science*, 103, 344-354.
- Turkkan, J.S. (1989). Classical conditioning: The new hegemony. *Behavioral and Brain Sciences*, 12, 121-179.
- Wagstaff, G. F. (1991). Suggestibility: A social psychological approach. In J.F. Schumaker (Eds.), *Human Suggestibility* (pp 132-145). New York: Routledge.
- Wachtel, P. (1993). *Therapeutic communication*. New York: Guildford Press.
- Weitzenhoffer, A. M., & Hilgard, E. R. (1959). *Stanford Hypnotic Susceptibility Scale, Forms A and B*. Palo Alto, CA: Consulting Psychologists Press.
- Wells, G. L., & Turtle, J. W. (1987). Eyewitness testimony research: Current knowledge and emergent controversies. *Canadian Journal of Behavioural Science*, 19, 363-388.
- Whipple, G. M. (1924). *Manual of mental and physical tests. Part II*. Baltimore: Warwick and York.
- White, R. S. (1930). Motor suggestion in children. *Child Development*, 1, 161-185.

- Wicker, A.W. (1969). Attitudes verses actions: The relationship between verbal and overt behavioral responses to attitude objects. *Journal of Social Issues*, 25 (4), 41-78.
- Wickramasekera, I. (1980). A conditioned response model of the placebo effect: Predictions from the model. *Biofeedback and Self-Regulation*, 5, 5-18.
- Winkel, J.D. & Nash, M.R. (2003). How'd they do that: An examination of arm rigidity. Paper presented at the annual conference for the Society of Clinical and Experimental Hypnosis.
- Winkler, J.D., Kanouse, D.E., & Ware, J.E. (1982). Controlling for acquiescence response set in scale development. *Journal of Applied Psychology*, 67, 555-561.
- Woolson, D.A. (1986). An Experimental Comparison of Direct Ericksonian Hypnotic Induction Procedures and the Relationship to Secondary Suggestibility. *American Journal of Clinical Hypnosis*, 29(1), 23-28.
- Woody, E.Z., Drugovic, M., & Oakman, J.M. (1997). A reexamination of the role of nonhypnotic suggestibility in hypnotic responding. *Journal of Personality and Social Psychology*, 72(2), 399-407.
- Wundt, W.M. (1892). *Hypnotismus and suggestion*. Leipzig: Engelmann.
- Zenger, B and Fahle, M. (1997). Missed Targets are More Frequent than False Alarms – A Model for Error Rates in Visual Search. *Journal of Experimental Psychology: Human Perception and Performance*, 23(6), 1783-1791.

## APPENDICES

APPENDIX A: TABLES

**Table A-1**

Summary of Factor Analytic Studies on Suggestibility

---

Authors	Factors Identified
Eysenck & Furneaux (1945)	Primary / Direct Secondary / Indirect Tertiary / Prestige
Grimes (1948)	No clearly delineated factors
Benton & Bandura (1953)	No clearly delineated factors
Stukát (1958)	Primary / Ideo-motor Secondary / Sensory-Perceptual Tertiary / Prestige
Stukát (1958)	Primary / Ideo-motor
Stukát (1958)	Primary / Ideo-motor Type Secondary / Indirect
Duke (1961)	Primary / Direct Secondary / Indirect
Hammer, Evans & Barlett (1963)	Primary / Ideo-motor Secondary / Vividness of Imagery
Tasso, et al. (2003)	No clearly delineated factors
Perez, et al. (2004)	No clearly delineated factors

---

**Table A-2**

Hypothesized Factor Structure

---

	Primary/Direct Ideomotor	Secondary/ Sensory-perceptual	Tertiary/Prestige
<b>Hypothesis #1</b>			
<i>Factor 1</i>	Pendulum Test Body Sway Test Hypnosis		
<i>Factor 2</i>		Watch Test Odor Test Hand Test Black Disk Test Tone Test Lemon Test Glass Test Light Test Placebo Test Progressive Weights	
<i>Factor 3</i>			Co-judgment Inkblot Test Gudjonson

---

Model tested was a three-factor structure suggesting that suggestibility is composed of three distinct subtypes; primary/direct-ideomotor, secondary/sensory-perceptual, and tertiary/prestige.

**Table A-3**

Suggestibility Measures

---

Measures	Type	Measure of Suggestibility
Body Sway	Primary/Direct -Ideomotor	Ss fall backward as the experimenter tells them they will.
Pendulum Test	Primary/Direct -Ideomotor	Ss make a pendulum swing as the experimenter tells them it will.
Hypnosis	Primary/Direct -Ideomotor	Ss respond to a 1 to 12 hypnotic items in a standardized hypnosis scale.
Odor Test	Secondary/ Sensory- perceptual	Ss smell the labeled fragrance on 1 or more of the bottles containing only water.
Lemon Test	Secondary/ Sensory- perceptual	Ss smell the lemon order getting stronger as the bottles progress.
Black Disk Test	Secondary/ Sensory- perceptual	Ss see a green dot in the center of the disk.
Light Test	Secondary/ Sensory- perceptual	Ss perceive the light getting brighter.
Hand Test	Secondary/ Sensory- perceptual	Ss sense the heat from a hand on their skin.
Glass Test	Secondary/ Sensory- perceptual	Ss feel a glass getting heavier as the experimenter pretends to pour water into a funnel.
Watch Test	Secondary/ Sensory- perceptual	Ss hear the ticking of a pocket watch.

---

**Table A-3** Continued

Suggestibility Measures

---

Measures	Type	Measure of Suggestibility
Tone Test	Secondary/ Sensory- perceptual	Ss hear a tone getting louder as the experimenter manipulates a tone generator.
Inkblot Test	Tertiary/ Prestige	Ss see pre-imposed percepts on three Rorschach cards.
Placebo Test	Secondary/ Sensory- perceptual	Ss physiological perceptions change by listening to a white noise CD.
Co-judgment Test	Tertiary/ Prestige	Ss listen to a story that requires judgment and make one that responds to the experimenter's suggestions.
Gudjonson Test	Tertiary/ Prestige	Ss listen to a story and respond to questions in accord with the experimenter's suggestions.

---



**Table A-4**

Distribution of the Dichotomous Variables – Test Data

	N	Minimum	Maximum	Mean	SD
Hand Test	94	0	1	.49	.503
Watch Test	95	0	1	.25	.437
Disk Test	94	0	1	.43	.437
Odor Test	95	0	1	.53	.502
Glass Test	95	0	1	.59	.495
Tone Test	92	0	1	.53	.502
Light Test	95	0	1	.71	.458
Lemon Test	95	0	1	.68	.467
Body Sway	94	0	1	.74	.438
Pendulum Test	92	0	1	.64	.482
Prog. Weights	93	0	1	.52	.502
Co-judgment	94	0	1	.68	.469
Gudjonson	92	0	1	.63	.485
Placebo Test	95	0	1	.40	.492
Inkblot Test	95	0	1	.43	.498
Valid N (listwise)	92				

**Table A-5**

Distribution of the Dichotomous Variables – Retest Data

	N	Minimum	Maximum	Mean	SD
Hand Test	95	0	1	.37	.485
Watch Test	95	0	1	.16	.367
Disk Test	95	0	1	.33	.471
Odor Test	95	0	1	.32	.467
Glass Test	92	0	1	.52	.502
Tone Test	90	0	1	.49	.503
Light Test	95	0	1	.62	.488
Lemon Test	95	0	1	.63	.485
Body Sway	94	0	1	.69	.464
Pendulum Test	95	0	1	.57	.498
Prog. Weights	95	0	1	.60	.492
Co-judgment	94	0	1	.35	.480
Gudjonson	92	0	1	.36	.482
Placebo Test	95	0	1	.31	.463
Inkblot Test	95	0	1	.48	.502
Valid N (listwise)	90				

**Table A-6**

Distribution of the Continuous Variables – Test Data

	N	Minimum	Maximum	Mean	SD
Hand Test	87	0	9	4.38	3.758
Watch Test	87	0	9	2.60	3.412
Disk Test	90	0	9	3.61	3.562
Odor Test	92	0	9	4.49	3.663
Glass Test	91	0	9	5.12	3.562
Tone Test	88	0	9	4.55	3.342
Light Test	90	0	9	6.06	3.113
Lemon Test	95	0	9	5.37	3.236
Body Sway	94	0	2	.94	.669
Pendulum Test	92	0	12	1.47	1.933
Prog. Weights	82	0	9	4.64	3.297
Co-judgment	94	-3	12	4.32	2.945
Gudjonsson	92	2	28	15.38	5.553
Placebo Test	95	0	6	1.25	1.244
Inkblot Test	95	0	9	3.99	3.360
Valid N (listwise)	82				

**Table A-7**

Distribution of the Continuous Variables – Retest Data

	N	Minimum	Maximum	Mean	SD
Hand Test	87	0	9	3.29	3.589
Watch Test	85	0	9	1.85	3.006
Disk Test	85	0	9	2.48	3.414
Odor Test	87	0	9	3.01	3.226
Glass Test	85	0	9	4.49	3.676
Tone Test	88	0	9	4.28	3.572
Light Test	92	0	9	5.15	3.499
Lemon Test	93	0	9	5.04	3.605
Body Sway	94	0	2	.85	.671
Pendulum Test	95	0	10	1.27	1.793
Prog. Weights	91	0	9	5.31	3.326
Co-judgment	94	-2	11	2.33	2.236
Gudjonsson	92	0	24	11.87	5.462
Placebo Test	95	-2	10	1.02	1.523
Inkblot Test	94	0	9	4.34	3.570
Valid N (listwise)	85				

**Table A-8**  
Correlation Matrix of Dichotomous Variables

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
<b>Hand Test (Sugg1)</b>									
Pearson Correlation	1	.012	-.013	.129	.133	-.122	.079	.147	.227*
Sig. (2-tailed)		.905	.904	.216	.200	.249	.448	.157	.029
N	94	94	93	94	94	91	94	94	93
<b>Watch Test (Sugg2)</b>									
Pearson Correlation	.012	1	.138	.115	.042	.011	-.049	.030	-.234*
Sig. (2-tailed)	.905		.186	.267	.686	.919	.636	.772	.023
N	94	95	94	95	95	92	95	95	94
<b>Black Disk Test (Sugg3)</b>									
Pearson Correlation	-.013	.138	1	.117	-.018	.064	.043	-.011	.066
Sig. (2-tailed)	.904	.186		.260	.866	.550	.680	.918	.532
N	93	94	94	94	94	91	94	94	93
<b>Odor Test (Sugg4)</b>									
Pearson Correlation	.129	.115	.117	1	.023	-.004	-.058	.353**	.086
Sig. (2-tailed)	.216	.267	.260		.828	.968	.574	.000	.408
N	94	95	94	95	95	92	95	95	94
<b>Glass Test (Sugg5)</b>									
Pearson Correlation	.133	.042	-.018	.023	1	-.057	.165	.124	-.085
Sig. (2-tailed)	.200	.686	.866	.828		.586	.111	.233	.417
N	94	95	94	95	95	92	95	95	94
<b>Tone Test (Sugg6)</b>									
Pearson Correlation	-.122	.011	.064	-.004	-.057	1	.018	.021	.031
Sig. (2-tailed)	.249	.919	.550	.968	.586		.863	.843	.769
N	91	92	91	92	92	92	92	92	91
<b>Light Test (Sugg7)</b>									
Pearson Correlation	.079	-.049	.043	-.058	.165	.018	1	.207*	-.008
Sig. (2-tailed)	.448	.636	.680	.574	.111	.863		.045	.939
N	94	95	94	95	95	92	95	95	94
<b>Lemon Test (Sugg8)</b>									
Pearson Correlation	.147	.030	-.011	.353**	.124	.021	.207*	1	.070
Sig. (2-tailed)	.157	.772	.918	.000	.233	.843	.045		.502
N	94	95	94	95	95	92	95	95	94
<b>Body Sway (Sugg9)</b>									
Pearson Correlation	.227*	-.234*	.066	.086	-.085	-.031	-.008	.070	1
Sig. (2-tailed)	.029	.023	.532	.408	.417	.769	.939	.502	
N	93	94	93	94	94	91	94	94	94
<b>Pendulum Test (Sugg10)</b>									
Pearson Correlation	.197	.118	.129	.130	.063	-.129	.115	.012	.067
Sig. (2-tailed)	.061	.264	.223	.218	.551	.229	.274	.913	.526
N	91	92	91	92	92	89	92	92	91

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8 Continued**  
**Correlation Matrix of Dichotomous Variables**

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
Progressive Weights (Sugg11)									
Pearson Correlation	.087	.156	-.151	-.121	.027	.109	.068	.068	-.013
Sig. (2-tailed)	.409	.135	.152	.247	.799	.305	.517	.515	.905
N	92	93	92	93	93	90	93	93	92
Co-judge Test (Sugg12)									
Pearson Correlation	.024	.018	.020	-.062	.041	.022	.003	-.126	.080
Sig. (2-tailed)	.821	.863	.852	.551	.698	.834	.976	.226	.443
N	93	92	93	94	94	91	94	94	93
Gudjonson Scale (Sugg13)									
Pearson Correlation	.202	-.026	.145	.095	.032	.012	.081	.032	.067
Sig. (2-tailed)	.055	.806	.170	.367	.761	.910	.444	.763	.526
N	91	92	91	92	92	89	92	92	91
Placebo Test (Sugg14)									
Pearson Correlation	.148	.020	.212*	.086	.026	.078	.104	.139	.122
Sig. (2-tailed)	.156	.849	.040	.407	.801	.460	.317	.180	.241
N	94	95	94	95	95	92	95	95	94
Inkblot Test (Sugg15)									
Pearson Correlation	.104	.080	.024	.231*	.209*	.162	-.089	-.002	.010
Sig. (2-tailed)	.317	.439	.818	.024	.042	.122	.389	.982	.920
N	94	95	94	95	95	92	95	95	94
Hand Test (SuggB1)									
Pearson Correlation	.592**	.209*	.227*	.244*	.194	.106	.159	.096	.136
Sig. (2-tailed)	.000	.042	.017	.042	.315	.125	.353	.191	
N	94	95	94	95	95	92	95	95	94
Watch Test (SuggB2)									
Pearson Correlation	.038	.213*	.213*	.122	.127	.119	.153	.046	.055
Sig. (2-tailed)	.714	.038	.040	.240	.221	.260	.138	.660	.597
N	94	95	94	95	95	92	95	95	94
Black Disk Test (SuggB3)									
Pearson Correlation	.106	.319**	.495**	.211*	.033	.047	.056	-.107	-.004
Sig. (2-tailed)	.310	.002	.000	.040	.750	.653	.590	.303	.966
N	94	95	94	95	95	92	95	95	94
Odor Test (SuggB4)									
Pearson Correlation	.106	.178	.103	.236*	.107	-.138	-.008	-.026	.074
Sig. (2-tailed)	.310	.084	.323	.021	.021	.188	.940	.805	.477
N	94	95	94	95	95	92	95	95	94
Glass Test (SuggB5)									
Pearson Correlation	.232*	.172	.040	.129	.478**	.063	.218*	.100	.033
Sig. (2-tailed)	.027	.100	.707	.221	.000	.558	.037	.344	.757
N	91	92	91	92	92	90	92	92	91

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8 Continued**  
Correlation Matrix of Dichotomous Variables

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
<b>Tone Test (SuggB6)</b>									
Pearson Correlation	-.102	-.087	-.131	-.154	-.019	.317**	.033	-.087	-.186
Sig. (2-tailed)	.344	.414	.220	.146	.859	.003	.757	.417	.080
N	89	90	89	90	90	87	90	90	89
<b>Light Test (SuggB7)</b>									
Pearson Correlation	.202	.055	.129	.128	.230	.005	.542**	.263*	.003
Sig. (2-tailed)	.051	.599	.216	.216	.025	.963	.000	.010	.975
N	94	95	94	95	95	92	95	95	94
<b>Lemon Test (SuggB8)</b>									
Pearson Correlation	.138	.243*	.066	.368**	.117	-.019	.224*	.420**	.067
Sig. (2-tailed)	.186	.018	.529	.000	.260	.855	.029	.000	.521
N	94	95	94	95	95	92	95	95	94
<b>Body Sway (SuggB9)</b>									
Pearson Correlation	.094	-.084	.116	.112	-.095	.119	.169	.136	.367**
Sig. (2-tailed)	.368	.419	.268	.283	.362	.262	.103	.192	.000
N	93	94	93	94	94	91	94	94	93
<b>Pendulum Test (SuggB10)</b>									
Pearson Correlation	.131	-.178	.106	.067	.180	.098	.183	.002	.223*
Sig. (2-tailed)	.207	.084	.308	.518	.081	.352	.077	.982	.031
N	94	95	94	95	95	92	95	95	94
<b>Progressive Weights (SuggB11)</b>									
Pearson Correlation	.069	.129	-.036	.129	.149	-.037	-.009	.000	-.184
Sig. (2-tailed)	.507	.214	.728	.212	.151	.727	.928	1.000	.076
N	94	95	94	95	95	92	95	95	94
<b>Co-judge Test (SuggB12)</b>									
Pearson Correlation	.181	.100	-.111	.080	-.075	-.195	-.106	.025	.013
Sig. (2-tailed)	.082	.338	.290	.442	.470	.064	.310	.808	.899
N	93	94	93	94	94	91	94	94	93
<b>Gudjonson Scale (SuggB13)</b>									
Pearson Correlation	-.015	.092	.069	.110	.059	.082	.283**	.051	-.035
Sig. (2-tailed)	.891	.385	.517	.296	.578	.446	.006	.627	.744
N	91	92	91	92	92	.89	92	92	91
<b>Placebo Test (SuggB14)</b>									
Pearson Correlation	.037	.141	.170	.217*	.135	.073	.078	.204*	.021
Sig. (2-tailed)	.721	.174	.100	.035	.192	.490	.455	.047	.838
N	94	95	94	95	95	92	95	95	94
<b>Inkblot Test (SuggB15)</b>									
Pearson Correlation	.127	.067	.018	.244**	.166	.132	.072	.024	.073
Sig. (2-tailed)	.223	.520	.861	.017	.107	.209	.488	.819	.486
N	94	95	94	95	95	92	95	95	94

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8 Continued**  
**Correlation Matrix of Dichotomous Variables**

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
Hypnosis									
Pearson Correlation	.079	-.150	.260	.015	-.084	.031	.291*	-.064	.089
Sig. (2-tailed)	.571	.278	.057	.915	.547	.827	.033	.644	.520
N	54	54	54	54	54	52	54	54	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(a) Continued**  
Correlation Matrix of Dichotomous Variables

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonsson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
Hand Test (Sugg1)									
Pearson Correlation	.197	.087	.024	.202	.148	.104	.592**	.038	.106
Sig. (2-tailed)	.061	.409	.821	.055	.156	.317	.000	.714	.310
N	91	92	93	91	94	94	94	94	94
Watch Test (Sugg2)									
Pearson Correlation	.118	-.156	.018	-.026	.020	.080	.209*	.213*	.319**
Sig. (2-tailed)	.264	.135	.863	.806	.849	.439	.042	.038	.002
N	92	93	94	92	95	95	95	95	95
Black Disk Test (Sugg3)									
Pearson Correlation	.129	-.151	-.020	.145	.212*	.024	.227*	.213*	.495**
Sig. (2-tailed)	.223	.152	.852	.170	.040	.818	.028	.040	.000
N	91	92	93	91	94	94	94	94	94
Odor Test (Sugg4)									
Pearson Correlation	.130	-.121	-.062	.095	.086	.231*	.244*	.122	.211*
Sig. (2-tailed)	.218	.247	.551	.367	.407	.024	.017	.240	.040
N	92	93	94	92	95	95	95	95	95
Glass Test (Sugg5)									
Pearson Correlation	.063	.027	.041	.032	.026	.209*	.194	.127	.033
Sig. (2-tailed)	.551	.799	.698	.761	.801	.042	.060	.221	.750
N	92	93	94	92	95	95	95	95	95
Tone Test (Sugg6)									
Pearson Correlation	-.129	.109	-.022	.012	.078	.162	.106	.119	.047
Sig. (2-tailed)	.229	.305	.834	.910	.460	.122	.315	.260	.653
N	89	90	91	89	92	92	92	92	92
Light Test (Sugg7)									
Pearson Correlation	.115	.068	.003	.081	.104	-.089	.159	.153	.056
Sig. (2-tailed)	.274	.517	.976	.444	.317	.389	.125	.138	.590
N	92	93	94	92	95	95	95	95	95
Lemon Test (Sugg8)									
Pearson Correlation	.012	.068	-.126	.032	.139	-.002	.096	.046	-.107
Sig. (2-tailed)	.913	.515	.226	.763	.180	.982	.353	.660	.303
N	92	93	94	92	95	95	95	95	95
Body Sway (Sugg9)									
Pearson Correlation	.067	-.013	.080	.067	.122	.010	.136	.055	-.004
Sig. (2-tailed)	.526	.905	.443	.526	.241	.920	.191	.597	.966
N	91	92	93	91	94	94	94	94	94

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(a) Continued**  
Correlation Matrix of Dichotomous Variables

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
Pendulum Test (Sugg10)									
Pearson Correlation	1	.063	.073	.055	-.050	.016	.244*	-.038	.166
Sig. (2-tailed)		.556	.493	.609	.633	.880	.019	.719	.114
N	92	90	91	89	92	92	92	92	92
Progressive Weights (Sugg11)									
Pearson Correlation	.063	1	-.016	-.006	.084	.059	.175	-.014	-.138
Sig. (2-tailed)	.556		.879	.954	.425	.575	.094	.897	.188
N	90	93	92	90	93	93	93	93	93
Co-judge Test (Sugg12)									
Pearson Correlation	.073	-.016	1	.183	-.041	.096	.040	.174	.238**
Sig. (2-tailed)	.493	.879		.082	.698	.358	.699	.094	.021
N	91	92	94	91	94	94	94	94	94
Gudjonson Scale (Sugg13)									
Pearson Correlation	.055	-.006	.183	1	.185	.263*	.166	.033	.132
Sig. (2-tailed)	.609	.954	.082		.078	.011	.113	.754	.211
N	89	90	91	92	92	92	92	92	92
Placebo Test (Sugg14)									
Pearson Correlation	-.050	.084	-.041	.185	1	.026	.134	.236*	.211*
Sig. (2-tailed)	.633	.425	.698	.078		.802	.197	.021	.040
N	92	93	94	92	95	95	95	95	95
Inkblot Test (Sugg15)									
Pearson Correlation	.016	.059	.096	.263*	.026	1	.260*	.089	.073
Sig. (2-tailed)	.880	.575	.358	.011	.802		.011	.391	.479
N	92	93	94	92	95	95	95	95	95
Hand Test (SuggB1)									
Pearson Correlation	.244**	.175	.040	.166	.134	.260*	1	.268**	.167
Sig. (2-tailed)	.019	.699	.113	.197	.011	.095		.009	.107
N	92	93	94	92	95	95	95	95	95
Watch Test (SuggB2)									
Pearson Correlation	-.038	-.014	.174	.033	.236*	.089	.268**	1	.191
Sig. (2-tailed)	.719	.897	.094	.754	.021	.391	.056		.063
N	92	93	94	92	95	95	95	95	95
Black Disk Test (SuggB3)									
Pearson Correlation	.166	-.138	.238*	.132	.211	.073	.167	.191	1
Sig. (2-tailed)	.114	.188	.021	.211	.040	.479	.107	.063	
N	92	93	94	92	95	95	95	95	95
Odor Test (SuggB4)									
Pearson Correlation	-.012	-.022	.077	.083	.139	.185	.326**	.265**	.107
Sig. (2-tailed)	.913	.832	.460	.430	.180	.072	.001	.010	.303
N	92	93	94	92	95	95	95	95	95

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)



**Table A-8(a) Continued**  
Correlation Matrix of Dichotomous Variables

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
Glass Test (SuggB5)									
Pearson Correlation	-.068	-.045	.093	.059	.208*	.225*	.192	.263*	.084
Sig. (2-tailed)	.524	.670	.379	.582	.046	.046	.067	.011	.426
N	89	90	91	89	92	92	92	92	92
Tone Test (SuggB6)									
Pearson Correlation	-.122	.057	-.056	-.033	-.027	-.070	-.166	.236*	-.056
Sig. (2-tailed)	.261	.598	.602	.764	.799	.515	.118	.025	.600
N	87	89	89	87	90	90	90	90	90
Light Test (SuggB7)									
Pearson Correlation	-.089	-.019	.024	.114	.195	-.020	.237*	.173	.064
Sig. (2-tailed)	.400	.860	.819	.281	.058	.845	.021	.093	.539
N	92	93	94	92	95	95	95	95	95
Lemon Test (SuggB8)									
Pearson Correlation	-.119	.003	.039	.142	.045	.225*	.176	.091	.206*
Sig. (2-tailed)	.258	.978	.708	.176	.668	.028	.088	.379	.045
N	92	93	94	92	95	95	95	95	95
Body Sway (SuggB9)									
Pearson Correlation	.307**	.171	.048	.106	.175	.062	.119	.102	-.119
Sig. (2-tailed)	.003	.104	.648	.319	.092	.550	.252	.326	.252
N	91	92	93	91	94	94	94	94	94
Pendulum Test (SuggB10)									
Pearson Correlation	.167	.049	-.004	.027	.017	-.013	.093	.028	-.119
Sig. (2-tailed)	.112	.639	.970	.800	.867	.900	.371	.791	.251
N	92	93	94	92	95	95	95	95	95
Progressive Weights (SuggB11)									
Pearson Correlation	.097	.312**	.041	.142	.228*	.061	.045	.000	.018
Sig. (2-tailed)	.358	.002	.698	.176	.026	.559	.668	1.000	.860
N	92	93	94	92	95	95	95	95	95
Co-judge Test (SuggB12)									
Pearson Correlation	.125	.126	.121	.068	.166	-.153	.003	-.016	.100
Sig. (2-tailed)	.239	.230	.245	.522	.109	.142	.977	.877	.336
N	91	92	94	91	94	94	94	94	94
Gudjonson Scale (SuggB13)									
Pearson Correlation	-.140	.076	-.138	.366**	.293**	.092	.132	.038	-.006
Sig. (2-tailed)	.190	.474	.191	.000	.005	.382	.211	.719	.957
N	89	90	91	89	92	92	92	92	92
Placebo Test (SuggB14)									
Pearson Correlation	.034	.048	.111	.262*	.485**	.068	.110	.089	.221*
Sig. (2-tailed)	.747	.648	.285	.012	.000	.510	.290	.391	.031

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(a) Continued**  
**Correlation Matrix of Dichotomous Variables**

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonsson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
N	92	93	94	92	95	95	95	95	95
Inkblot Test (SuggB15)									
Pearson Correlation	.081	-.010	.168	.327*	-.017	.729**	.177	.100	.179
Sig. (2-tailed)	.443	.926	.105	.001	.869	.000	.086	.333	.082
N	92	93	94	92	95	95	95	95	95
Hypnosis									
Pearson Correlation	.041	.117	.072	.196	.120	-.015	.119	.267	.143
Sig. (2-tailed)	.775	.401	.604	.161	.387	.915	.391	.051	.301
N	51	54	54	53	54	54	54	54	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(b)**  
Correlation Matrix of Dichotomous Variables

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
<b>Hand Test (Sugg1)</b>									
Pearson Correlation	.106	.232*	-.102	.202	.138	.094	.131	.069	.181
Sig. (2-tailed)	.310	.027	.344	.051	.186	.368	.207	.507	.082
N	94	91	89	94	94	93	94	94	93
<b>Watch Test (Sugg2)</b>									
Pearson Correlation	.178	.172	-.087	.055	.243*	-.084	-.178	.129	.100
Sig. (2-tailed)	.084	.100	.414	.599	.018	.419	.084	.214	.338
N	95	92	90	95	95	94	95	95	94
<b>Black Disk Test (Sugg3)</b>									
Pearson Correlation	.103	.040	-.131	.129	.066	.116	.106	-.036	-.111
Sig. (2-tailed)	.323	.707	.220	.216	.529	.268	.308	.728	.290
N	94	91	89	94	94	93	94	94	93
<b>Odor Test (Sugg4)</b>									
Pearson Correlation	.236*	.129	-.154	.128	.368**	.112	.067	.129	.080
Sig. (2-tailed)	.021	.221	.146	.216	.000	.283	.518	.212	.442
N	95	92	90	95	95	94	95	95	94
<b>Glass Test (Sugg5)</b>									
Pearson Correlation	.107	.478**	-.019	.230*	.117	-.095	.180	.149	.075
Sig. (2-tailed)	.304	.000	.859	.025	.260	.362	.081	.151	.470
N	95	92	90	95	95	94	95	95	94
<b>Tone Test (Sugg6)</b>									
Pearson Correlation	-.138	.063	.317**	.005	-.019	-.119	-.098	-.037	-.195
Sig. (2-tailed)	.188	.558	.003	.963	.855	.262	.352	.727	.064
N	92	90	87	92	921	91	92	92	91
<b>Light Test (Sugg7)</b>									
Pearson Correlation	-.008	.218*	.033	.542**	.224*	.169	.183	-.009	-.106
Sig. (2-tailed)	.940	.037	.757	.000	.029	.103	.077	.928	.310
N	95	92	90	95	95	94	95	95	94
<b>Lemon Test (Sugg8)</b>									
Pearson Correlation	-.026	.100	-.087	.263*	.420**	.136	.002	.000	.025
Sig. (2-tailed)	.805	.344	.417	.010	.000	.192	.982	1.000	.808
N	95	92	90	95	95	94	95	95	94
<b>Body Sway (Sugg9)</b>									
Pearson Correlation	.074	.033	-.186	.003	.067	.367**	.223*	-.184	.013
Sig. (2-tailed)	.477	.757	.080	.975	.521	.000	.031	.076	.899
N	94	91	89	94	94	93	94	94	93
<b>Pendulum Test (Sugg10)</b>									
Pearson Correlation	-.012	-.068	-.122	-.089	-.119	.307**	.167	.097	.125
Sig. (2-tailed)	.913	.524	.261	.400	.258	.003	.112	.358	.239
N	92	89	87	92	92	91	92	92	91

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(b) Continued**  
**Correlation Matrix of Dichotomous Variables**

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
Progressive Weights (Sugg11)									
Pearson Correlation	-.022	-.045	.057	-.015	.003	.171	.049	.312**	.126
Sig. (2-tailed)	.832	.670	.598	.860	.978	.104	.639	.002	.230
N	93	90	89	93	93	92	93	93	92
Co-judge Test (Sugg12)									
Pearson Correlation	.077	.093	-.056	.024	.039	.048	-.004	.041	.121
Sig. (2-tailed)	.460	.379	.602	.819	.708	.648	.970	.698	.245
N	94	94	89	94	94	93	94	94	94
Gudjonson Scale (Sugg13)									
Pearson Correlation	.175	.192	.002	.166	.197	.042	-.046	.042	-.109
Sig. (2-tailed)	.094	.071	.988	.114	.060	.691	.661	.688	.306
N	92	89	87	92	92	91	92	91	91
Placebo Test (Sugg14)									
Pearson Correlation	.139	.208*	-.072	.195	.045	.175	.017	.228*	.166
Sig. (2-tailed)	.180	.046	.799	.058	.668	.092	.867	.026	.109
N	95	92	90	95	95	94	95	95	94
Inkblot Test (Sugg15)									
Pearson Correlation	.185	.225*	-.070	-.020	.225*	.062	-.013	.061	-.153
Sig. (2-tailed)	.072	.031	.515	.854	.028	.550	.900	.559	.142
N	95	92	90	95	95	94	95	95	94
Hand Test (SuggB1)									
Pearson Correlation	.326**	.192	-.166	.237*	.176	.119	.093	.045	.003
Sig. (2-tailed)	.009	.067	.118	.021	.088	.252	.371	.668	.977
N	95	92	90	95	95	94	95	95	94
Watch Test (SuggB2)									
Pearson Correlation	.265**	.263*	-.236*	.338**	.091	.102	.028	.000	-.016
Sig. (2-tailed)	.010	.011	.025	.001	.379	.326	.791	1.000	.877
N	95	92	90	95	95	94	95	95	94
Black Disk Test (SuggB3)									
Pearson Correlation	.107	.084	-.056	.173	.206*	-.119	-.119	.018	.100
Sig. (2-tailed)	.303	.426	.600	.093	.045	.252	.251	.860	.336
N	95	92	90	95	95	94	95	95	94
Odor Test (SuggB4)									
Pearson Correlation	1	.202	-.246*	.064	.284**	.013	-.048	-.046	.070
Sig. (2-tailed)		.054	.019	.539	.005	.904	.643	.659	.501
N	95	92	90	95	95	94	95	95	94
Glass Test (SuggB5)									
Pearson Correlation	.202	1	-.033	.370**	.373**	-.001	.105	.258*	.022
Sig. (2-tailed)	.054		.759	.000	.000	.992	.321	.013	.838
N	92	92	87	92	92	91	92	92	91

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(b) Continued**  
Correlation Matrix of Dichotomous Variables

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
<b>Tone Test (SuggB6)</b>									
Pearson Correlation	-.246	-.033	1	-.086	-.040	-.199	.027	.079	.022
Sig. (2-tailed)	.019	.759		.420	.708	.060	.799	.462	.988
N	90	87	90	90	90	90	90	89	87
<b>Light Test (SuggB7)</b>									
Pearson Correlation	.064	.370**	-.086	1	.303**	-.005	.020	-.018	-.017
Sig. (2-tailed)	.539	.000	.420		.003	.962	.845	.865	.874
N	95	92	90	95	95	94	95	95	94
<b>Lemon Test (SuggB8)</b>									
Pearson Correlation	.284**	.373**	-.040	.303**	1	.010	-.049	.045	.013
Sig. (2-tailed)	.005	.000	.708	.003		.927	.639	.668	.899
N	95	92	90	95	95	94	95	95	94
<b>Body Sway (SuggB9)</b>									
Pearson Correlation	.013	-.001	-.298**	-.005	.010	1	.310**	.154	.014
Sig. (2-tailed)	.904	.992	.005	.962	.927		.002	.139	.893
N	94	91	89	94	94	94	94	94	93
<b>Pendulum Test (SuggB10)</b>									
Pearson Correlation	-.048	.105	-.199	.020	-.049	.310**	1	.156	.153
Sig. (2-tailed)	.643	.321	.060	.845	.639	.002		.131	.142
N	95	92	90	95	95	94	95	95	94
<b>Progressive Weights (SuggB11)</b>									
Pearson Correlation	.070	.022	.079	-.018	.045	.154	.156	1	.288**
Sig. (2-tailed)	.501	.838	.462	.865	.668	.139	.131		.005
N	94	91	89	95	95	94	95	95	94
<b>Co-judge Test (SuggB12)</b>									
Pearson Correlation	.070	.022	.079	-.017	.013	.014	.153	.288**	1
Sig. (2-tailed)	.501	.838	.462	.874	.899	.893	.142	.005	
N	94	91	89	94	94	93	94	94	94
<b>Gudjonson Scale (SuggB13)</b>									
Pearson Correlation	.175	.192	.002	.116	.197	.042	-.046	.042	-.109
Sig. (2-tailed)	.094	.071	.988	.114	.060	.691	.661	.688	.306
N	92	89	87	92	96	91	92	92	91
<b>Placebo Test (SuggB14)</b>									
Pearson Correlation	.091	.228*	.014	.141	.222*	.147	.024	.121	.184
Sig. (2-tailed)	.383	.029	.895	.173	.031	.158	.819	.242	.075
N	95	92	90	95	95	94	95	95	94
<b>Inkblot Test (SuggB15)</b>									
Pearson Correlation	.203*	.153	-.067	.062	.216*	.133	.036	.060	-.096
Sig. (2-tailed)	.049	.145	.529	.550	.036	.202	.727	.562	.358
N	95	92	90	95	95	94	95	95	94

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(b) Continued**  
**Correlation Matrix of Dichotomous Variables**

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
Hypnosis									
Pearson Correlation	.081	.045	.015	.207	.053	.095	.123	-.096	-.243
Sig. (2-tailed)	.559	.750	.915	.134	.702	.500	.374	.492	.077
N	54	52	54	54	54	53	54	54	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(c)**  
Correlation Matrix of Dichotomous Variables

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
<b>Hand Test (Sugg1)</b>				
Pearson Correlation	-.015	.037	.127	.079
Sig. (2-tailed)	.891	.721	.223	.571
N	91	94	94	54
<b>Watch Test (Sugg2)</b>				
Pearson Correlation	.092	.141	.067	-.150
Sig. (2-tailed)	.385	.174	.520	.278
N	92	95	95	54
<b>Black Disk Test (Sugg3)</b>				
Pearson Correlation	.069	.170	.018	.260
Sig. (2-tailed)	.517	.100	.861	.057
N	91	94	94	54
<b>Odor Test (Sugg4)</b>				
Pearson Correlation	.110	.217*	.244*	.015
Sig. (2-tailed)	.296	.035	.017	.915
N	92	95	95	54
<b>Glass Test (Sugg5)</b>				
Pearson Correlation	.059	.135	.166	-.084
Sig. (2-tailed)	.578	.192	.107	.547
N	92	95	95	54
<b>Tone Test (Sugg6)</b>				
Pearson Correlation	.082	.073	.132	.031
Sig. (2-tailed)	.446	.490	.209	.827
N	89	92	92	52
<b>Light Test (Sugg7)</b>				
Pearson Correlation	.283**	.078	.072	.291*
Sig. (2-tailed)	.006	.455	.488	.033
N	92	95	95	54
<b>Lemon Test (Sugg8)</b>				
Pearson Correlation	.051	.204*	.024	-.064
Sig. (2-tailed)	.627	.047	.819	.644
N	92	95	95	54
<b>Body Sway (Sugg9)</b>				
Pearson Correlation	-.035	.021	.073	.089
Sig. (2-tailed)	.744	.838	.486	.520
N	91	94	94	54
<b>Pendulum Test (Sugg10)</b>				
Pearson Correlation	-.140	.034	.081	.041
Sig. (2-tailed)	.190	.747	.443	.775
N	89	92	92	51

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(c) Continued**  
**Correlation Matrix of Dichotomous Variables**

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
<b>Progressive Weights (Sugg11)</b>				
Pearson Correlation	.042	.121	.060	.117
Sig. (2-tailed)	.688	.242	.562	.401
N	92	95	95	54
<b>Co-judge Test (Sugg12)</b>				
Pearson Correlation	-.138	.111	.168	.072
Sig. (2-tailed)	.191	.285	.105	.604
N	91	94	94	54
<b>Gudjonson Scale (Sugg13)</b>				
Pearson Correlation	.366**	.262*	.084	.196
Sig. (2-tailed)	.000	.012	.425	.161
N	89	92	92	53
<b>Placebo Test (Sugg14)</b>				
Pearson Correlation	.293**	.485**	-.002	.120
Sig. (2-tailed)	.005	.000	.985	.387
N	92	95	95	54
<b>Inkblot Test (Sugg15)</b>				
Pearson Correlation	.092	.068	.729**	-.015
Sig. (2-tailed)	.382	.510	.000	.915
N	92	95	95	54
<b>Hand Test (SuggB1)</b>				
Pearson Correlation	.132	.110	.177	.119
Sig. (2-tailed)	.211	.290	.086	.391
N	92	95	95	54
<b>Watch Test (SuggB2)</b>				
Pearson Correlation	.038	.089	.100	.267
Sig. (2-tailed)	.719	.391	.333	.051
N	92	95	95	54
<b>Black Disk Test (SuggB3)</b>				
Pearson Correlation	-.006	.221*	.179	.143
Sig. (2-tailed)	.957	.031	.082	.301
N	92	95	95	54
<b>Odor Test (SuggB4)</b>				
Pearson Correlation	.175	.091	.203*	.081
Sig. (2-tailed)	.094	.383	.049	.559
N	92	95	95	54
<b>Glass Test (SuggB5)</b>				
Pearson Correlation	.192	.228*	.153	.045
Sig. (2-tailed)	.071	.029	.145	.750
N	89	92	92	52

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)



**Table A-8(c) Continued**  
Correlation Matrix of Dichotomous Variables

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
<b>Tone Test (SuggB6)</b>				
Pearson Correlation	.014	-.067	.145	.015
Sig. (2-tailed)	.895	.529	.081	.915
N	90	90	145	54
<b>Light Test (SuggB7)</b>				
Pearson Correlation	.166	.141	.062	.207
Sig. (2-tailed)	.114	.173	.550	.134
N	92	95	95	54
<b>Lemon Test (SuggB8)</b>				
Pearson Correlation	.197	.222*	.216*	.053
Sig. (2-tailed)	.060	.031	.036	.702
N	92	95	95	54
<b>Body Sway (SuggB9)</b>				
Pearson Correlation	.042	.147	.133	.095
Sig. (2-tailed)	.691	.158	.202	.500
N	91	91	94	53
<b>Pendulum Test (SuggB10)</b>				
Pearson Correlation	-.046	.024	.036	.123
Sig. (2-tailed)	.661	.819	.727	.374
N	92	95	95	54
<b>Progressive Weights (SuggB11)</b>				
Pearson Correlation	.042	.121	.060	-.096
Sig. (2-tailed)	.688	.242	.562	.492
N	92	95	95	54
<b>Co-judge Test (SuggB12)</b>				
Pearson Correlation	-.109	.184	-.096	-.243
Sig. (2-tailed)	.306	.075	.358	.077
N	91	94	94	54
<b>Gudjonson Scale (SuggB13)</b>				
Pearson Correlation	1	.322**	.084	.255
Sig. (2-tailed)		.002	.425	.069
N	92	92	92	52
<b>Placebo Test (SuggB14)</b>				
Pearson Correlation	.322**	1	-.002	.020
Sig. (2-tailed)	.002		.985	.884
N	92	95	95	54
<b>Inkblot Test (SuggB15)</b>				
Pearson Correlation	.084	-.002	1	.040

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-8(c) Continued**  
**Correlation Matrix of Dichotomous Variables**

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
Sig. (2-tailed)	.425	.985		.775
N	92	95	95	54
Hypnosis				
Pearson Correlation	.255	.020	.040	1
Sig. (2-tailed)	.069	.884	.775	
N	52	54	54	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9**  
Correlation Matrix of Continuous Variables

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
<b>Hand Test (Sugg1)</b>									
Pearson Correlation	1	.119	.012	.138	.166	-.060	.056	.248*	.258*
Sig. (2-tailed)		.282	.911	.207	.124	.593	.607	.021	.016
N	87	83	85	86	87	82	86	87	86
<b>Watch Test (Sugg2)</b>									
Pearson Correlation	.119	1	.201	.251*	.191	.052	-.055	.201	-.186
Sig. (2-tailed)	.282		.065	.020	.079	.643	.616	.063	.086
N	83	87	85	86	86	82	86	87	86
<b>Black Disk Test (Sugg3)</b>									
Pearson Correlation	.012	.201	1	.159	.000	-.009	-.008	.001	.036
Sig. (2-tailed)	.911	.065		.138	.995	.933	.941	.989	.737
N	85	85	90	88	88	84	87	90	89
<b>Odor Test (Sugg4)</b>									
Pearson Correlation	.138	.251*	.159	1	.044	.072	.022	.297**	.064
Sig. (2-tailed)	.207	.020	.138		.680	.508	.835	.004	.549
N	86	86	88	92	90	86	88	92	91
<b>Glass Test (Sugg5)</b>									
Pearson Correlation	.166	.191	.000	.044	1	.060	.258*	.201	-.094
Sig. (2-tailed)	.124	.079	.995	.680		.583	.015	.057	.376
N	87	86	88	90	91	86	88	91	90
<b>Tone Test (Sugg6)</b>									
Pearson Correlation	-.060	.052	-.009	.072	.060	1	.065	.150	.045
Sig. (2-tailed)	.593	.643	.933	.508	.583		.555	.164	.677
N	82	82	84	86	86	88	85	88	87
<b>Light Test (Sugg7)</b>									
Pearson Correlation	.056	-.055	-.008	.022	.258*	.065	1	.310**	-.184
Sig. (2-tailed)	.607	.616	.941	.835	.015	.555		.003	.085
N	86	86	87	88	88	85	90	90	89
<b>Lemon Test (Sugg8)</b>									
Pearson Correlation	.248*	.201	.001	.297**	.201	.150	.310**	1	.026
Sig. (2-tailed)	.021	.063	.989	.004	.057	.164	.003		.807
N	87	87	90	92	91	88	90	95	94
<b>Body Sway (Sugg9)</b>									
Pearson Correlation	.258*	-.086	.036	.064	-.094	.045	-.184	.026	1
Sig. (2-tailed)	.016	.086	.737	.549	.376	.677	.085	.807	
N	86	86	89	91	90	87	89	94	94
<b>Pendulum Test (Sugg10)</b>									
Pearson Correlation	.121	.102	.049	.113	-.054	-.026	.049	.058	.091
Sig. (2-tailed)	.274	.358	.649	.291	.620	.812	.653	.583	.393
N	84	84	87	89	88	85	87	92	91

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9 Continued**  
Correlation Matrix of Continuous Variables

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
Progressive Weights (Sugg11)									
Pearson Correlation	.209	.139	-.115	-.187	.049	.099	.066	.034	-.005
Sig. (2-tailed)	.074	.236	.321	.097	.668	.399	.569	.761	.962
N	74	74	77	80	78	75	77	82	81
Co-judge Test (Sugg12)									
Pearson Correlation	-.149	-.023	.027	-.122	-.043	-.012	-.014	-.162	.006
Sig. (2-tailed)	.170	.832	.800	.250	.687	.910	.896	.118	.957
N	86	86	89	91	90	87	89	94	93
Gudjonson Scale (Sugg13)									
Pearson Correlation	.155	.089	.193	.063	.123	.054	.116	.164	-.056
Sig. (2-tailed)	.159	.422	.073	.560	.254	.621	.285	.119	.597
N	84	84	87	89	88	85	87	92	91
Placebo Test (Sugg14)									
Pearson Correlation	.296**	.135	.141	.092	.093	.097	.174	.153	.109
Sig. (2-tailed)	.005	.213	.186	.381	.379	.371	.101	.139	.297
N	87	87	90	92	91	88	90	95	94
Inkblot Test (Sugg15)									
Pearson Correlation	.125	.168	.107	.212	.238*	.160	.029	.082	-.011
Sig. (2-tailed)	.248	.120	.316	.043	.023	.135	.787	.432	.913
N	87	87	90	92	91	88	90	95	94
Hand Test (SuggB1)									
Pearson Correlation	.555**	.336**	.183	.217*	.207	.200	.071	.179	.147
Sig. (2-tailed)	.000	.002	.095	.046	.055	.073	.519	.097	.178
N	83	81	80	85	86	81	84	87	86
Watch Test (SuggB2)									
Pearson Correlation	.047	.384**	.206	.208	.147	.178	.202	.170	.032
Sig. (2-tailed)	.678	.000	.061	.059	.181	.116	.069	.120	.776
N	81	80	84	83	84	79	82	85	84
Black Disk Test (SuggB3)									
Pearson Correlation	.062	.475**	.445**	.217*	.098	.102	.106	.021	-.089
Sig. (2-tailed)	.583	.000	.000	.049	.377	.373	.344	.847	.419
N	81	80	84	83	84	79	82	85	84
Odor Test (SuggB4)									
Pearson Correlation	.097	.241*	.082	.260*	.113	-.072	.080	.040	-.040
Sig. (2-tailed)	.391	.029	.457	.016	.303	.523	.471	.712	.714
N	81	82	85	85	85	81	83	87	86
Glass Test (SuggB5)									
Pearson Correlation	.210	.302**	.067	.110	.580**	.195	.173	.171	-.079
Sig. (2-tailed)	.060	.007	.544	.323	.000	.084	.121	.118	.474
N	81	79	83	83	84	80	82	85	84

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9 Continued**  
Correlation Matrix of Continuous Variables

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
<b>Tone Test (SuggB6)</b>									
Pearson Correlation	-.116	-.143	-.141	-.159	.023	.353**	.059	-.022	-.126
Sig. (2-tailed)	.300	.202	.197	.144	.834	.001	.592	.836	.243
N	82	81	85	86	85	82	85	88	87
<b>Light Test (SuggB7)</b>									
Pearson Correlation	.202	.135	.152	.211*	.282**	.099	.597**	.353**	-.128
Sig. (2-tailed)	.062	.218	.154	.047	.007	.365	.000	.001	.226
N	86	85	89	89	89	86	89	92	91
<b>Lemon Test (SuggB8)</b>									
Pearson Correlation	.197	.372**	.149	.400**	.201	.082	.215*	.466**	-.044
Sig. (2-tailed)	.070	.000	.166	.000	.059	.454	.044	.000	.679
N	85	85	88	90	89	86	88	93	92
<b>Body Sway (SuggB9)</b>									
Pearson Correlation	.145	-.171	.150	.079	-.122	.000	-.009	.172	.539**
Sig. (2-tailed)	.184	.114	.161	.455	.251	.999	.933	.098	.000
N	86	86	89	91	90	87	89	94	93
<b>Pendulum Test (SuggB10)</b>									
Pearson Correlation	.230*	.035	.005	.176	-.010	-.007	.078	.153	.288**
Sig. (2-tailed)	.032	.747	.961	.094	.924	.950	.463	.138	.005
N	87	87	90	92	91	88	90	95	94
<b>Progressive Weights (SuggB11)</b>									
Pearson Correlation	.103	.158	-.007	.119	.143	.079	.038	.046	-.057
Sig. (2-tailed)	.354	.154	.950	.270	.186	.476	.725	.665	.592
N	83	83	86	88	87	84	86	91	90
<b>Co-judge Test (SuggB12)</b>									
Pearson Correlation	.167	.056	-.052	-.019	-.205	-.221*	.026	-.051	.046
Sig. (2-tailed)	.125	.610	.626	.856	.053	.040	.810	.624	.665
N	86	86	89	91	90	87	89	94	93
<b>Gudjonson Scale (SuggB13)</b>									
Pearson Correlation	-.034	.093	.155	.166	.054	.188	.167	-.005	-.097
Sig. (2-tailed)	.760	.399	.149	.119	.610	.086	.123	.960	.361
N	85	85	88	90	89	85	87	92	91
<b>Placebo Test (SuggB14)</b>									
Pearson Correlation	.145	.284**	.209*	.230*	.226*	.055	.108	.268**	.001
Sig. (2-tailed)	.179	.008	.048	.027	.031	.611	.311	.009	.990
N	87	87	90	92	91	88	90	95	94
<b>Inkblot Test (SuggB15)</b>									
Pearson Correlation	.109	.111	.086	.295**	.151	.121	.188	.141	.112
Sig. (2-tailed)	.320	.309	.425	.004	.155	.265	.078	.176	.284
N	86	86	89	92	90	87	89	94	93

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9 Continued**  
Correlation Matrix of Continuous Variables

	Hand Test (Sugg1)	Watch Test (Sugg2)	Black Disk Test (Sugg3)	Odor Test (Sugg4)	Glass Test (Sugg5)	Tone Test (Sugg6)	Light Test (Sugg7)	Lemon Test (Sugg8)	Body Sway (Sugg9)
Hypnosis									
Pearson Correlation	.049	-.197	.178	.038	-.081	.067	.238	-.058	.129
Sig. (2-tailed)	.734	.170	.206	.787	.565	.641	.093	.675	.353
N	50	50	52	54	53	51	51	54	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(a)**  
Correlation Matrix of Continuous Variables

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
<b>Hand Test (Sugg1)</b>									
Pearson Correlation	.121	.209	-.149	.155	.296**	.125	.555**	.047	.062
Sig. (2-tailed)	.274	.074	.170	.159	.005	.248	.000	.678	.583
N	84	74	86	84	87	87	83	81	81
<b>Watch Test (Sugg2)</b>									
Pearson Correlation	.102	.139	-.023	.089	.135	.168	.336**	.384**	.475**
Sig. (2-tailed)	.358	.236	.832	.422	.213	.120	.002	.000	.000
N	84	74	86	84	87	87	81	80	80
<b>Black Disk Test (Sugg3)</b>									
Pearson Correlation	.049	-.115	.027	.193	.141	.107	.183	.206	.445**
Sig. (2-tailed)	.649	.321	.800	.073	.186	.316	.095	.061	.000
N	87	77	89	87	90	90	85	84	84
<b>Odor Test (Sugg4)</b>									
Pearson Correlation	.113	-.187	-.122	.063	.092	.212*	.217*	.208	.217*
Sig. (2-tailed)	.291	.097	.250	.560	.381	.043	.046	.059	.049
N	89	80	91	89	92	92	85	83	83
<b>Glass Test (Sugg5)</b>									
Pearson Correlation	-.054	.049	-.043	.123	.093	.238*	.207	.147	.098
Sig. (2-tailed)	.620	.668	.687	.254	.379	.023	.055	.181	.377
N	88	78	90	88	91	91	86	84	84
<b>Tone Test (Sugg6)</b>									
Pearson Correlation	-.026	.099	-.012	.054	.097	.160	.200	.178	.102
Sig. (2-tailed)	.812	.399	.910	.621	.371	.135	.073	.116	.373
N	85	75	87	85	88	88	81	79	79
<b>Light Test (Sugg7)</b>									
Pearson Correlation	.049	.066	-.014	.116	.174	.029	.071	.202	.106
Sig. (2-tailed)	.653	.569	.896	.285	.101	.787	.519	.069	.344
N	87	77	89	87	90	90	84	82	82
<b>Lemon Test (Sugg8)</b>									
Pearson Correlation	.058	.034	-.162	.164	.153	.082	.179	.170	.021
Sig. (2-tailed)	.583	.761	.118	.119	.139	.432	.097	.120	.847
N	92	82	94	92	95	95	87	85	85
<b>Body Sway (Sugg9)</b>									
Pearson Correlation	.091	-.005	.006	-.056	.109	-.011	.147	.032	-.089
Sig. (2-tailed)	.393	.962	.957	.597	.297	.913	.178	.776	.419
N	91	81	93	91	94	94	86	84	84
<b>Pendulum Test (Sugg10)</b>									
Pearson Correlation	1	.073	-.130	-.061	.118	-.009	.307**	.034	.055
Sig. (2-tailed)		.518	.219	.567	.261	.930	.005	.762	.627
N	92	80	91	89	92	92	84	82	82

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(a) Continued**  
Correlation Matrix of Continuous Variables

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
Progressive Weights (Sugg11)									
Pearson Correlation	.073	1	.026	.164	.083	.080	.227	-.093	-.019
Sig. (2-tailed)	.518		.815	.148	.459	.474	.051	.433	.876
N	80	82	82	79	82	82	75	73	73
Co-judge Test (Sugg12)									
Pearson Correlation	-.130	.026	1	.176	-.004	-.028	-.045	.099	.065
Sig. (2-tailed)	.219	.815		.915	.972	.792	.682	.369	.556
N	91	82	94	91	94	94	86	84	84
Gudjonson Scale (Sugg13)									
Pearson Correlation	-.061	.164	.176	1	.153	.194	.075	.072	.098
Sig. (2-tailed)	.567	.148	.095		.145	.064	.500	.521	.381
N	89	79	91	92	92	92	84	82	82
Placebo Test (Sugg14)									
Pearson Correlation	.118	.083	-.004	.153	1	-.008	.227*	.217*	.156
Sig. (2-tailed)	.261	.459	.972	.145		.937	.035	.046	.154
N	92	82	94	92	95	95	87	85	85
Inkblot Test (Sugg15)									
Pearson Correlation	-.009	.080	-.028	.194	-.008	1	.333**	.128	.187
Sig. (2-tailed)	.930	.474	.792	.064	.937		.002	.242	.087
N	92	82	94	92	95	95	87	85	85
Hand Test (SuggB1)									
Pearson Correlation	.307**	.227	-.045	.075	.227*	.333**	1	.349**	.219*
Sig. (2-tailed)	.005	.051	.682	.500	.035	.002		.001	.046
N	84	75	86	84	87	87	87	85	83
Watch Test (SuggB2)									
Pearson Correlation	.034	-.093	.099	.072	.217*	.128	.349**	1	.406**
Sig. (2-tailed)	.762	.433	.369	.521	.046	.242	.001		.000
N	82	73	84	82	85	85	85	85	83
Black Disk Test (SuggB3)									
Pearson Correlation	.055	-.019	.065	.098	.156	.187	.219*	.406**	1
Sig. (2-tailed)	.627	.876	.556	.381	.154	.087	.046	.000	
N	82	73	84	82	85	85	83	83	85
Odor Test (SuggB4)									
Pearson Correlation	.054	.082	.072	.026	.060	.227*	.300**	.297**	.270*
Sig. (2-tailed)	.627	.483	.513	.816	.582	.034	.005	.006	.014
N	84	75	86	84	87	87	85	84	82
Glass Test (SuggB5)									
Pearson Correlation	-.176	.060	.079	.121	.270*	.210	.298**	.426**	.170
Sig. (2-tailed)	.113	.612	.474	.280	.013	.054	.006	.000	.128
N	82	73	84	82	85	85	82	80	82

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)



**Table A-9(a) Continued**  
**Correlation Matrix of Continuous Variables**

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
<b>Tone Test (SuggB6)</b>									
Pearson Correlation	-.036	.064	-.132	.091	.047	-.107	-.109	-.195	-.139
Sig. (2-tailed)	.745	.581	.221	.405	.666	.322	.332	.083	.219
N	85	77	87	85	88	88	82	80	80
<b>Light Test (SuggB7)</b>									
Pearson Correlation	-.135	-.098	.005	.178	.253	.047	.280**	.426**	.216
Sig. (2-tailed)	.208	.391	.962	.095	.015	.656	.009	.000	.047
N	89	79	91	89	92	92	86	84	85
<b>Lemon Test (SuggB8)</b>									
Pearson Correlation	.016	.043	-.144	.067	.110	.193	.331**	.344**	.390**
Sig. (2-tailed)	.883	.707	.170	.532	.295	.064	.002	.001	.000
N	90	80	92	90	93	93	85	83	85
<b>Body Sway (SuggB9)</b>									
Pearson Correlation	.245*	.119	.009	.027	-.173	.040	.196	.082	-.093
Sig. (2-tailed)	.019	.292	.935	.799	.096	.702	.070	.461	.403
N	91	81	93	91	94	94	86	84	84
<b>Pendulum Test (SuggB10)</b>									
Pearson Correlation	.411**	.121	-.098	-.003	.218*	-.037	.300**	.140	-.041
Sig. (2-tailed)	.000	.280	.350	.980	.034	.724	.005	.202	.708
N	92	82	94	92	95	95	87	85	85
<b>Progressive Weights (SuggB11)</b>									
Pearson Correlation	.159	.295**	.090	.212*	.306**	.102	.097	.013	.135
Sig. (2-tailed)	.137	.008	.400	.047	.003	.337	.381	.905	.228
N	89	79	90	88	91	91	83	81	82
<b>Co-judge Test (SuggB12)</b>									
Pearson Correlation	.105	.143	.349**	-.010	.270**	-.144	.081	.011	.081
Sig. (2-tailed)	.320	.199	.001	.927	.008	.167	.459	.921	.466
N	91	82	94	91	94	94	86	84	84
<b>Gudjonson Scale (SuggB13)</b>									
Pearson Correlation	.086	-.023	-.012	.410**	.250*	.001	.131	.098	.158
Sig. (2-tailed)	.424	.839	.910	.000	.016	.992	.231	.374	.150
N	89	79	91	89	92	92	85	84	84
<b>Placebo Test (SuggB14)</b>									
Pearson Correlation	.259*	.057	.014	.333**	.559**	.094	.229*	.220*	.294**
Sig. (2-tailed)	.013	.632	.896	.001	.000	.367	.033	.043	.006
N	92	82	92	92	95	95	87	85	85
<b>Inkblot Test (SuggB15)</b>									
Pearson Correlation	-.017	.029	.056	.244**	-.092	.756**	.190	.092	.257*
Sig. (2-tailed)	.871	.796	.596	.857	.380	.000	.080	.406	.018
N	91	82	93	91	94	94	86	84	84

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(a) Continued**  
**Correlation Matrix of Continuous Variables**

	Pendulum Test (Sugg10)	Progressive Weights (Sugg11)	Co-judge Test (Sugg12)	Gudjonson Test (Sugg13)	Placebo Test (Sugg14)	Inkblot Test (Sugg15)	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)
Hypnosis									
Pearson Correlation	.024	.085	.039	.093	.109	-.061	.103	.249	.016
Sig. (2-tailed)	.865	.566	.780	.507	.434	.659	.488	.095	.917
N	51	48	54	53	54	54	48	46	46

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(b)**  
Correlation Matrix of Continuous Variables

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
<b>Hand Test (Sugg1)</b>									
Pearson Correlation	.097	.210	-.116	.202	.197	.145	.230	.103	.167
Sig. (2-tailed)	.391	.060	.300	.062	.070	.184	.032	.354	.125
N	81	81	82	86	85	86	87	83	86
<b>Watch Test (Sugg2)</b>									
Pearson Correlation	.241*	.302**	-.143	.135	.372**	-.171	-.035	.158	.056
Sig. (2-tailed)	.029	.007	.202	.218	.000	.114	.747	.154	.610
N	82	79	81	85	85	86	87	83	86
<b>Black Disk Test (Sugg3)</b>									
Pearson Correlation	.082	.067	-.141	.152	.149	.150	.005	-.007	-.052
Sig. (2-tailed)	.457	.544	.197	.154	.166	.161	.961	.950	.626
N	85	83	85	89	88	89	90	86	89
<b>Odor Test (Sugg4)</b>									
Pearson Correlation	.260*	.110	-.159	.211*	.400**	.079	.176	.119	-.019
Sig. (2-tailed)	.016	.323	.144	.047	.000	.455	.094	.270	.856
N	85	83	86	89	90	91	92	88	91
<b>Glass Test (Sugg5)</b>									
Pearson Correlation	.113	.580**	.023	.282**	.201	-.122	-.010	.143	-.205
Sig. (2-tailed)	.303	.000	.834	.007	.059	.251	.924	.186	.053
N	85	84	85	89	89	90	91	87	90
<b>Tone Test (Sugg6)</b>									
Pearson Correlation	-.072	.195	.353**	.099	.082	.000	-.007	.079	-.221*
Sig. (2-tailed)	.523	.084	.001	.365	.454	.999	.950	.476	.040
N	81	80	82	86	86	87	88	84	87
<b>Light Test (Sugg7)</b>									
Pearson Correlation	.080	.173	.059	.597**	.215*	-.009	.078	-.038	.026
Sig. (2-tailed)	.471	.121	.592	.000	.044	.933	.463	.725	.810
N	83	82	85	89	88	89	90	86	89
<b>Lemon Test (Sugg8)</b>									
Pearson Correlation	.040	.171	-.022	.353**	.466**	.172	.153	.046	-.051
Sig. (2-tailed)	.712	.118	.836	.001	.000	.098	.138	.665	.624
N	87	85	88	92	93	94	95	91	94
<b>Body Sway (Sugg9)</b>									
Pearson Correlation	-.040	-.079	-.126	-.128	-.044	.539**	.288**	-.057	.046
Sig. (2-tailed)	.714	.474	.243	.226	.679	.000	.005	.592	.665
N	86	84	87	91	92	93	94	90	93
<b>Pendulum Test (Sugg10)</b>									
Pearson Correlation	.054	-.176	-.036	-.135	.016	.245*	.411**	.159	.105
Sig. (2-tailed)	.627	.113	.745	.208	.883	.019	.000	.137	.320
N	84	82	85	89	90	91	92	89	91

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(b) Continued**  
**Correlation Matrix of Continuous Variables**

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
Progressive Weights (Sugg11)									
Pearson Correlation	.082	.060	.064	-.098	-.043	.119	.121	.295**	.143
Sig. (2-tailed)	.483	.612	.581	.391	.707	.292	.280	.008	.199
N	75	73	77	79	80	81	82	79	82
Co-judge Test (Sugg12)									
Pearson Correlation	.072	.079	-.132	.005	.144	.009	-.098	.090	.349**
Sig. (2-tailed)	.513	.474	.221	.962	.170	.935	.350	.400	.001
N	86	84	87	91	92	93	94	90	94
Gudjonson Scale (Sugg13)									
Pearson Correlation	.026	.121	.091	.178	.067	.027	-.003	.212*	-.010
Sig. (2-tailed)	.816	.280	.405	.095	.532	.799	.980	.047	.927
N	84	82	85	95	90	91	92	88	91
Placebo Test (Sugg14)									
Pearson Correlation	.060	.270*	.047	.253*	.110	.173	.218*	.306**	.270**
Sig. (2-tailed)	.582	.013	.666	.015	.295	.096	.034	.003	.008
N	87	85	88	92	93	94	95	91	94
Inkblot Test (Sugg15)									
Pearson Correlation	.227*	.210	-.107	.047	.193	.040	-.037	.102	-.144
Sig. (2-tailed)	.034	.054	.322	.656	.064	.702	.724	.337	.167
N	87	85	88	92	93	94	95	91	94
Hand Test (SuggB1)									
Pearson Correlation	.300**	.298**	-.109	.280**	.331**	.196	.300**	.097	.081
Sig. (2-tailed)	.005	.006	.332	.009	.002	.070	.005	.391	.459
N	85	82	82	86	85	86	87	83	86
Watch Test (SuggB2)									
Pearson Correlation	.297**	.426**	-.195	.426**	.344**	.082	.140	.013	.011
Sig. (2-tailed)	.006	.000	.083	.000	.001	.461	.202	.905	.921
N	84	80	80	84	83	84	85	81	84
Black Disk Test (SuggB3)									
Pearson Correlation	.270*	.170	-.139	.216*	.390**	-.093	-.041	.135	.081
Sig. (2-tailed)	.014	.128	.219	.047	.000	.403	.708	.228	.466
N	82	82	80	85	85	84	85	82	84
Odor Test (SuggB4)									
Pearson Correlation	1	.265*	-.202	.079	.419**	-.062	.142	-.001	.125
Sig. (2-tailed)		.017	.070	.470	.000	.570	.189	.991	.252
N	87	80	81	85	85	86	87	83	86
Glass Test (SuggB5)									
Pearson Correlation	.265*	.003	-.002	.437**	.423**	.011	.064	.228*	-.033

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(b) Continued**  
Correlation Matrix of Continuous Variables

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
Sig. (2-tailed)	.017	.970	.984	.000	.000	.924	.563	.039	.764
N	80	85	80	85	85	84	85	82	84
Tone Test (SuggB6)									
Pearson Correlation	-.202	-.002	1	-.007	-.086	-.197	-.238*	.006	-.003
Sig. (2-tailed)	.070	.984		.951	.433	.067	.026	.957	.977
N	81	80	88	87	86	87	88	84	87
Light Test (SuggB7)									
Pearson Correlation	.079	.437**	-.007	1	.427**	-.013	.051	.036	-.055
Sig. (2-tailed)	.470	.000	.951		.000	.905	.632	.742	.602
N	85	85	87	92	91	91	92	88	91
Lemon Test (SuggB8)									
Pearson Correlation	.419**	.423**	-.086	.427**	1	.001	.085	.033	-.068
Sig. (2-tailed)	.000	.000	.433	.000		.994	.416	.760	.520
N	85	85	86	91	93	92	93	90	92
Body Sway (SuggB9)									
Pearson Correlation	-.062	.011	-.197	-.013	.001	1	.363**	.131	.072
Sig. (2-tailed)	.570	.924	.067	.905	.994		.000	.218	.494
N	86	84	87	91	92	94	94	90	93
Pendulum Test (SuggB10)									
Pearson Correlation	.142	.064	-.238*	.051	.085	.363**	.1	.210*	.174
Sig. (2-tailed)	.189	.563	.026	.632	.416	.000	.046	.046	.094
N	87	85	88	92	93	94	95	91	94
Progressive Weights (SuggB11)									
Pearson Correlation	-.001	.228*	.006	.036	.033	.131	.210*	1	.030
Sig. (2-tailed)	.990	.039	.957	.742	.760	.218	.046		.778
N	83	82	84	88	90	90	91	91	90
Co-judge Test (SuggB12)									
Pearson Correlation	.125	-.033	-.003	-.055	-.068	.072	.174	.030	1
Sig. (2-tailed)	.252	.764	.977	.602	.520	.494	.094	.778	
N	86	84	87	91	92	93	90	90	94
Gudjonson Scale (SuggB13)									
Pearson Correlation	.191	.252*	.055	.168	.161	-.015	.081	.081	-.059
Sig. (2-tailed)	.080	.021	.620	.115	.130	.885	.451	.451	.576
N	85	83	85	89	90	91	88	88	91
Placebo Test (SuggB14)									
Pearson Correlation	.227**	.295**	.002	.196	.283**	.045	.226*	.226*	.203*
Sig. (2-tailed)	.034	.006	.982	.062	.006	.667	.031	.031	.050
N	87	85	88	92	94	94	91	91	94

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(b) Continued**  
Correlation Matrix of Continuous Variables

	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway Test (SuggB9)	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge (SuggB12)
<b>Inkblot Test (SuggB15)</b>									
Pearson Correlation	.195	.101	-.124	.173	.174	-.091	.071	.071	-.031
Sig. (2-tailed)	.072	.360	.251	.102	.097	.385	.509	.509	.769
N	86	84	88	91	92	93	90	90	93
<b>Hypnosis</b>									
Pearson Correlation	.004	.061	.023	.135	.076	.118	-.091	.091	-.209
Sig. (2-tailed)	.981	.686	.872	.341	.592	.399	.526	.526	.130
N	48	47	53	52	52	53	51	51	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(c)**  
Correlation Matrix of Continuous Variables

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
<b>Hand Test (Sugg1)</b>				
Pearson Correlation	-.034	.145	.109	.049
Sig. (2-tailed)	.760	.179	.320	.734
N	85	87	86	50
<b>Watch Test (Sugg2)</b>				
Pearson Correlation	.093	.284**	.111	-.197
Sig. (2-tailed)	.399	.008	.309	.170
N	85	87	86	50
<b>Black Disk Test (Sugg3)</b>				
Pearson Correlation	.155	.209*	.086	.178
Sig. (2-tailed)	.149	.048	.425	.206
N	88	90	89	52
<b>Odor Test (Sugg4)</b>				
Pearson Correlation	.166	.230*	.295**	.038
Sig. (2-tailed)	.119	.027	.004	.787
N	90	92	92	54
<b>Glass Test (Sugg5)</b>				
Pearson Correlation	.054	.226*	.151	-.081
Sig. (2-tailed)	.618	.031	.155	.565
N	89	91	90	53
<b>Tone Test (Sugg6)</b>				
Pearson Correlation	.188	.055	.121	.067
Sig. (2-tailed)	.086	.611	.265	.641
N	85	88	87	51
<b>Light Test (Sugg7)</b>				
Pearson Correlation	.167	.108	.188	.238
Sig. (2-tailed)	.123	.311	.078	.093
N	87	90	89	51
<b>Lemon Test (Sugg8)</b>				
Pearson Correlation	-.005	.268**	.141	-.058
Sig. (2-tailed)	.960	.009	.176	.675
N	92	95	94	54
<b>Body Sway (Sugg9)</b>				
Pearson Correlation	-.097	.001	.112	.129
Sig. (2-tailed)	.361	.990	.284	.353
N	91	94	93	54
<b>Pendulum Test (Sugg10)</b>				
Pearson Correlation	.086	.259*	-.017	.024
Sig. (2-tailed)	.424	.013	.871	.865
N	89	92	91	51

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(c) Continued**  
Correlation Matrix of Continuous Variables

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
<b>Progressive Weights (Sugg11)</b>				
Pearson Correlation	-.023	.054	.029	.058
Sig. (2-tailed)	.839	.632	.796	.566
N	79	82	82	48
<b>Co-judge Test (Sugg12)</b>				
Pearson Correlation	-.012	.014	.056	.039
Sig. (2-tailed)	.910	.896	.596	.780
N	91	94	93	54
<b>Gudjonson Scale (Sugg13)</b>				
Pearson Correlation	.410**	.333**	.244*	.093
Sig. (2-tailed)	.000	.001	.020	.507
N	89	92	91	53
<b>Placebo Test (Sugg14)</b>				
Pearson Correlation	.250*	.559**	-.092	.109
Sig. (2-tailed)	.016	.000	.380	.434
N	92	95	94	54
<b>Inkblot Test (Sugg15)</b>				
Pearson Correlation	.001	.094	.756**	-.061
Sig. (2-tailed)	.992	.367	.000	.659
N	92	95	94	54
<b>Hand Test (SuggB1)</b>				
Pearson Correlation	.131	.229*	.190	.103
Sig. (2-tailed)	.231	.033	.080	.488
N	85	87	86	48
<b>Watch Test (SuggB2)</b>				
Pearson Correlation	.098	.220*	.092	.249
Sig. (2-tailed)	.374	.043	.406	.095
N	84	85	84	46
<b>Black Disk Test (SuggB3)</b>				
Pearson Correlation	.158	.294**	.257*	.016
Sig. (2-tailed)	.150	.006	.018	.917
N	84	85	84	46
<b>Odor Test (SuggB4)</b>				
Pearson Correlation	.191	.227*	.195	.004
Sig. (2-tailed)	.080	.034	.072	.981
N	85	87	86	48
<b>Glass Test (SuggB5)</b>				
Pearson Correlation	.252*	.295**	.101	.061
Sig. (2-tailed)	.021	.006	.360	.686
N	83	85	84	47

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)



**Table A-9(c) Continued**  
Correlation Matrix of Continuous Variables

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
<b>Tone Test (SuggB6)</b>				
Pearson Correlation	.055	.002	-.124	.023
Sig. (2-tailed)	.620	.982	.251	.872
N	85	88	88	53
<b>Light Test (SuggB7)</b>				
Pearson Correlation	.168	.196	.173	.135
Sig. (2-tailed)	.115	.062	.102	.341
N	89	92	91	52
<b>Lemon Test (SuggB8)</b>				
Pearson Correlation	.161	.283**	.174	.076
Sig. (2-tailed)	.130	.006	.097	.592
N	90	93	92	52
<b>Body Sway (SuggB9)</b>				
Pearson Correlation	-.015	.045	.091	.118
Sig. (2-tailed)	.885	.667	.385	.399
N	91	94	93	53
<b>Pendulum Test (SuggB10)</b>				
Pearson Correlation	.146	.072	-.032	.177
Sig. (2-tailed)	.164	.490	.757	.201
N	92	95	94	54
<b>Progressive Weights (SuggB11)</b>				
Pearson Correlation	.081	.226*	.071	-.091
Sig. (2-tailed)	.451	.031	.509	.526
N	88	91	90	51
<b>Co-judge Test (SuggB12)</b>				
Pearson Correlation	-.059	.203*	-.031	-.209
Sig. (2-tailed)	.576	.050	.769	.130
N	91	94	93	54
<b>Gudjonson Scale (SuggB13)</b>				
Pearson Correlation	.1	.349**	.033	.309*
Sig. (2-tailed)		.001	.753	.026
N	92	92	91	52
<b>Placebo Test (SuggB14)</b>				
Pearson Correlation	.349**	.1	.097	.029
Sig. (2-tailed)	.001		.354	.835
N	92	95	94	54
<b>Inkblot Test (SuggB15)</b>				
Pearson Correlation	.033	.097	1	.009
Sig. (2-tailed)	.753	.354		.949
N	91	94	94	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-9(c) Continued**  
**Correlation Matrix of Continuous Variables**

	Gudjonson Scale (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)	Hypnosis
Hypnosis				
Pearson Correlation	.309*	.029	.009	1
Sig. (2-tailed)	.026	.835	.949	
N	52	54	54	54

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table 10**  
Correlation Matrix across Test/Retest Data of Dichotomous Variables

	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway (SuggB9)
Hand Test (Sugg1)									
Pearson Correlation	.592**								
Sig. (2-tailed)	.000								
N	94								
Watch Test (Sugg2)									
Pearson Correlation		.213*							
Sig. (2-tailed)		.038							
N		95							
Black Disk Test (Sugg3)									
Pearson Correlation			.495**						
Sig. (2-tailed)			.000						
N			94						
Odor Test (Sugg4)									
Pearson Correlation				.236*					
Sig. (2-tailed)				.021					
N				95					
Glass Test (Sugg5)									
Pearson Correlation					.478**				
Sig. (2-tailed)					.000				
N					92				
Tone Test (Sugg6)									
Pearson Correlation						.317**			
Sig. (2-tailed)						.003			
N						87			
Light Test (Sugg7)									
Pearson Correlation							.542**		
Sig. (2-tailed)							.000		
N							95		
Lemon Test (Sugg8)									
Pearson Correlation								.420**	
Sig. (2-tailed)								.000	
N								95	
Body Sway (Sugg9)									
Pearson Correlation									.367**
Sig. (2-tailed)									.000
N									93

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table 10(a)**  
Correlation Matrix across Test/Retest Dichotomous Variables

	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge Test (SuggB12)	Gudjonson Test (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)
Pendulum Test (Sugg10)						
Pearson Correlation	.167					
Sig. (2-tailed)	.112					
N	92					
Progressive Weights (Sugg11)						
Pearson Correlation		.312**				
Sig. (2-tailed)		.002				
N		93				
Co-judge Test (Sugg12)						
Pearson Correlation			.121			
Sig. (2-tailed)			.245			
N			94			
Gudjonson Scale (Sugg13)						
Pearson Correlation				.366**		
Sig. (2-tailed)				.000		
N				89		
Placebo Test (Sugg14)						
Pearson Correlation					.485**	
Sig. (2-tailed)					.000	
N					95	
Inkblot Test (Sugg15)						
Pearson Correlation						.729**
Sig. (2-tailed)						.000
N						95

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table 11**  
Correlation Matrix across Test/Retest of Continuous Variables

	Hand Test (SuggB1)	Watch Test (SuggB2)	Black Disk Test (SuggB3)	Odor Test (SuggB4)	Glass Test (SuggB5)	Tone Test (SuggB6)	Light Test (SuggB7)	Lemon Test (SuggB8)	Body Sway (SuggB9)
Hand Test (Sugg1)									
Pearson Correlation	.555**								
Sig. (2-tailed)	.000								
N	83								
Watch Test (Sugg2)									
Pearson Correlation		.384**							
Sig. (2-tailed)		.000							
N		80							
Black Disk Test (Sugg3)									
Pearson Correlation			.445**						
Sig. (2-tailed)			.000						
N			84						
Odor Test (Sugg4)									
Pearson Correlation				.260*					
Sig. (2-tailed)				.016					
N				85					
Glass Test (Sugg5)									
Pearson Correlation					.580**				
Sig. (2-tailed)					.000				
N					84				
Tone Test (Sugg6)									
Pearson Correlation						.353**			
Sig. (2-tailed)						.001			
N						82			
Light Test (Sugg7)									
Pearson Correlation							.597**		
Sig. (2-tailed)							.000		
N							89		
Lemon Test (Sugg8)									
Pearson Correlation								.466**	
Sig. (2-tailed)								.000	
N								93	
Body Sway (Sugg9)									
Pearson Correlation									.539**
Sig. (2-tailed)									.000
N									93

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table 11(a)**  
Correlation Matrix across Test/Retest Continuous Variables

	Pendulum Test (SuggB10)	Progressive Weights (SuggB11)	Co-judge Test (SuggB12)	Gudjonson Test (SuggB13)	Placebo Test (SuggB14)	Inkblot Test (SuggB15)
Pendulum Test (Sugg10)						
Pearson Correlation	.411**					
Sig. (2-tailed)	.000					
N	92					
Progressive Weights (Sugg11)						
Pearson Correlation		.295**				
Sig. (2-tailed)		.008				
N		79				
Co-judge Test (Sugg12)						
Pearson Correlation			.349**			
Sig. (2-tailed)			.001			
N			94			
Gudjonson Scale (Sugg13)						
Pearson Correlation				.410**		
Sig. (2-tailed)				.000		
N				89		
Placebo Test (Sugg14)						
Pearson Correlation					.559**	
Sig. (2-tailed)					.000	
N					95	
Inkblot Test (Sugg15)						
Pearson Correlation						.756**
Sig. (2-tailed)						.000
N						94

\*\*Correlation is significant at the 0.01 level (2-tailed)

\*Correlation is significant at the 0.05 level (2-tailed)

**Table A-12**

Communalities Among the Dichotomous Variables – Test Data (Flexible Approach)

---

	Initial	Extraction
Hypnosis	1.000	.783
Hand Test	1.000	.712
Watch Test	1.000	.840
Black Disk Test	1.000	.820
Odor Test	1.000	.731
Glass Test	1.000	.650
Tone Test	1.000	.826
Light Test	1.000	.817
Lemon Test	1.000	.845
Body Sway Test	1.000	.691
Pendulum Test	1.000	.754
Progressive Weights	1.000	.674
Co-judge Test	1.000	.714
Gudjonsson Scale	1.000	.620
Placebo Test	1.000	.756
Inkblot Test	1.000	.796

---

Extraction Method: Principal Component Analysis

**Table A-13**

Total Variance Explained for the Dichotomous Variables – Test Data (Flexible Approach)

Component	Total	% of Variance	Cumulative %
<b>Initial Eigenvalues</b>			
1	2.619	16.369	16.369
2	1.806	11.288	27.657
3	1.553	9.709	37.366
4	1.440	8.999	46.366
5	1.301	8.131	54.497
6	1.205	7.532	62.029
7	1.088	6.799	68.828
8	1.014	6.340	75.167
9	.804	8.027	80.195
10	.653	4.079	84.273
11	.608	3.803	88.076
12	.559	3.496	91.572
13	.481	3.005	94.577
14	.360	2.247	96.824
15	.286	1.787	98.611
16	.222	1.389	100.000
<b>Extraction Sums of Squared Loadings</b>			
1	2.619	16.369	16.369
2	1.806	11.288	27.657
3	1.553	9.709	37.366
4	1.440	8.999	46.366
5	1.301	8.131	54.497
6	1.205	7.532	62.029
7	1.088	6.799	68.828
8	1.014	6.340	75.167
<b>Rotation Sums of Squared Loadings</b>			
1	1.791	11.196	11.196
2	1.542	9.639	20.835
3	1.529	8.556	30.392
4	1.520	9.497	39.889
5	1.486	9.285	49.174
6	1.442	9.011	58.185
7	1.373	8.581	66.766
8	1.344	8.401	75.167

ExtractionMethod:PrincipalComponentAnalysis



**Table A-14**

Initial Factor Solution for the Dichotomous Variables – Test Data (flexible Approach)

	Component Matrix						
	1	2	3	4	5	6	7
Hypnosis	.328	.418				-.508	-.343
Hand Test	.619	-.322		-.306			
Watch Test				.788			
Black Disk Test	.374	.392	-.337	.401			-.380
Odor Test	.564	-.375	-.414				
Glass Test		-.561	.412				
Tone Test		.506				.493	
Light Test	.304		.517			-.445	
Lemon Test	.626	-.401				.445	
Body Sway Test	.407		-.334	-.425	-.354		
Pendulum Test			-.375		.477		
Progressive Weights			.529		.427	.424	
Co-judge Test					.591		.363
Gudjonsson Test	.506						
Placebo Test	.487	.493			-.395		
Inkblot Test	.508						-.498

Extraction Method: Principal Component Analysis (8 components extracted)

**Table A-14(b)**

Initial Factor Solution for the Dichotomous Variables – Test Data (Flexible Approach)

---

Component Matrix	
	8
Hypnosis	
Hand Test	
Watch Test	-.338
Black Disk Test	
Odor Test	
Glass Test	
Tone Test	.354
Light Test	.390
Lemon Test	
Body Sway Test	
Pendulum Test	.470
Progressive Weights	
Co-judge Test	
Gudjonsson Test	-.378
Placebo Test	
Inkblot Test	.337

---

Extraction Method: Principal Component Analysis (8 components extracted)

**Table A-15**

Rotated Factor Solution for the Dichotomous Variables – Test Data (flexible Approach)

	Component Matrix						
	1	2	3	4	5	6	7
Hypnosis						.724	.362
Hand Test		.507		.596			
Watch Test	.404				-.740		
Black Disk Test						.853	
Odor Test	.729			.326			
Glass Test			-.303	.417			.396
Tone Test			.893				
Light Test							.885
Lemon Test	.832						
Body Sway Test					.742		
Pendulum Test							
Progressive Weights		.538			-.470		
Co-judge Test		.352					
Gudjonsson Test		.750					
Placebo Test			.669				
Inkblot Test				.873			

Extraction Method: Principal Component Analysis (8 components extracted)

**Table A-15(b)**

Rotated Factor Solution for the Dichotomous Variables – Test Data (Flexible Approach)

---

Component Matrix	
8	
Hypnosis	
Hand Test	
Watch Test	
Black Disk Test	
Odor Test	
Glass Test	-.337
Tone Test	
Light Test	
Lemon Test	
Body Sway Test	
Pendulum Test	.787
Progressive Weights	
Co-judge Test	.726
Gudjonsson Test	
Placebo Test	
Inkblot Test	

---

Extraction Method: Principal Component Analysis (8 components extracted)

**Table A-16**

Communalities Among the Dichotomous Variables – Test Data (3 Factor Structure)

---

	Initial	Extraction
Hypnosis	.322	.114
Hand Test	.420	.513
Watch Test	.327	.046
Black Disk Test	.405	.218
Odor Test	.496	.999
Glass Test	.253	.182
Tone Test	.355	.269
Light Test	.282	.083
Lemon Test	.563	.403
Body Sway Test	.308	.147
Pendulum Test	.176	.041
Progressive Weights	.192	.069
Co-judge Test	.169	.031
Gudjonsson Scale	.342	.368
Placebo Test	.435	.468
Inkblot Test	.338	.232

---

Extraction Method: Maximum Likelihood Analysis

**Table A-17**

## Total Variance Explained for the Dichotomous Variables – Test Data (3 Factor)

Component	Total	% of Variance	Cumulative %
<b>Initial Eigenvalues</b>			
1	2.619	16.369	16.369
2	1.806	11.288	27.657
3	1.553	9.709	37.366
4	1.440	8.999	46.366
5	1.301	8.131	54.497
6	1.205	7.532	62.029
7	1.088	6.799	68.828
8	1.014	6.340	75.167
9	.804	8.027	80.195
10	.653	4.079	84.273
11	.608	3.803	88.076
12	.559	3.496	91.572
13	.481	3.005	94.577
14	.360	2.247	96.824
15	.286	1.787	98.611
16	.222	1.389	100.000
<b>Extraction Sums of Squared Loadings</b>			
1	1.640	10.253	10.253
2	1.545	9.656	19.910
3	.995	6.217	26.127
<b>Rotation Sums of Squared Loadings</b>			
1	1.780	11.123	11.123
2	1.363	8.516	19.639
3	1.038	6.488	26.127

ExtractionMethod:PrincipalComponentAnalysis

**Table A-18**

Initial Three-Factor Solution for the Dichotomous Variables – Test Data

	Component Matrix		
	1	2	3
Hypnosis			
Hand Test		.514	-.432
Watch Test			
Black Disk Test			.367
Odor Test	.999		
Glass Test			-.384
Tone Test		.301	.422
Light Test			
Lemon Test	.497	.347	
Body Sway Test			
Pendulum Test			
Progressive Weights			
Co-judge Test			
Gudjonsson Scale		.594	
Placebo Test		.527	.427
Inkblot Test	.335		

Extraction Method: Maximum Likelihood Analysis (3 components extracted)

**Table A-19**

Rotated Three-Factor Solution for the Dichotomous Variables – Test Data

	Component Matrix		
	1	2	3
Hypnosis		.308	
Hand Test	.667		
Watch Test			
Black Disk Test		.440	
Odor Test	.646		-.716
Glass Test	.372		
Tone Test		.506	
Light Test			
Lemon Test	.600		
Body Sway Test		.341	
Pendulum Test			
Progressive Weights			
Co-judge Test			
Gudjonsson Scale			.468
Placebo Test		.660	
Inkblot Test	.479		

Extraction Method: Maximum Likelihood Analysis (3 components extracted)



**Table A-20**

Communalities Among the Dichotomous Variables – Test Data (1 Factor)

---

	Initial	Extraction
Hypnosis	.332	.025
Hand Test	.420	.323
Watch Test	.327	.001
Black Disk Test	.405	.041
Odor Test	.496	.318
Glass Test	.253	.064
Tone Test	.355	.015
Light Test	.282	.040
Lemon Test	.563	.415
Body Sway Test	.308	.078
Pendulum Test	.176	.041
Progressive Weights	.192	.001
Co-judge Test	.169	.031
Gudjonsson Scale	.342	.131
Placebo Test	.435	.099
Inkblot Test	.338	.198

---

Extraction Method: Maximum Likelihood Analysis

**Table A-21****Total Variance Explained for the Dichotomous Variables – Test Data (1 Factor)**

Component	Total	% of Variance	Cumulative %
<b>Initial Eigenvalues</b>			
1	2.619	16.369	16.369
2	1.806	11.288	27.657
3	1.553	9.709	37.366
4	1.440	8.999	46.366
5	1.301	8.131	54.497
6	1.205	7.532	62.029
7	1.088	6.799	68.828
8	1.014	6.340	75.167
9	.804	8.027	80.195
10	.653	4.079	84.273
11	.608	3.803	88.076
12	.559	3.496	91.572
13	.481	3.005	94.577
14	.360	2.247	96.824
15	.286	1.787	98.611
16	.222	1.389	100.000
<b>Extraction Sums of Squared Loadings</b>			
1	1.820	11.377	11.377
<b>Rotation Sums of Squared Loadings</b>			
No rotation possible			

---

ExtractionMethod:MaximumLikelihoodAnalysis

**Table A-22**

One-Factor Solution for the Dichotomous Variables – Test Data

---

Component Matrix	
	1
Hypnosis	
Hand Test	.569
Watch Test	
Black Disk Test	
Odor Test	.564
Glass Test	
Tone Test	
Light Test	
Lemon Test	.644
Body Sway Test	
Pendulum Test	
Progressive Weights	
Co-judge Test	
Gudjonsson Scale	.362
Placebo Test	.315
Inkblot Test	.445

---

Extraction Method: Maximum Likelihood Analysis (1 components extracted)

**Table A-23**

Communalities Among the Continuous Variables – Test Data (Flexible Approach)

---

	Initial	Extraction
Hypnosis	1.000	.591
Hand Test	1.000	.706
Watch Test	1.000	.811
Black Disk Test	1.000	.779
Odor Test	1.000	.620
Glass Test	1.000	.698
Tone Test	1.000	.589
Light Test	1.000	.786
Lemon Test	1.000	.891
Body Sway Test	1.000	.703
Pendulum Test	1.000	.845
Progressive Weights	1.000	.646
Co-judge Test	1.000	.657
Gudjonsson Scale	1.000	.872
Placebo Test	1.000	.730
Inkblot Test	1.000	.727

---

Extraction Method: Principal Component Analysis

**Table A-24**

## Total Variance Explained for the Continuous Variables – Test Data (Flexible Approach)

Component	Total	% of Variance	Cumulative %
<b>Initial Eigenvalues</b>			
1	3.001	18.757	18.757
2	1.754	10.963	29.720
3	1.716	10.724	40.444
4	1.419	8.868	49.312
5	1.381	8.632	57.943
6	1.267	7.916	65.859
7	1.113	6.955	72.815
8	.963	6.017	78.832
9	.662	4.135	82.967
10	.637	3.979	86.946
11	.589	3.680	90.626
12	.468	2.923	93.549
13	.368	2.298	95.847
14	.302	1.891	97.737
15	.212	1.325	99.062
16	.150	.938	100.000
<b>Extraction Sums of Squared Loadings</b>			
1	3.001	18.757	18.757
2	1.754	10.963	29.720
3	1.716	10.724	40.444
4	1.419	8.868	49.312
5	1.381	8.632	57.943
6	1.267	7.916	65.859
7	1.113	6.955	72.815
<b>Rotation Sums of Squared Loadings</b>			
1	1.970	12.312	12.312
2	1.903	11.895	24.208
3	1.877	11.731	35.938
4	1.579	9.869	45.807
5	1.468	9.176	54.983
6	1.464	9.152	64.135
7	1.389	8.680	72.815

ExtractionMethod:PrincipalComponentAnalysis

**Table A-25**

Initial Factor Solution for the Continuous Variables – Test Data

	Component Matrix						
	1	2	3	4	5	6	7
Hypnosis				.549	.418		
Hand Test	.697				-.386		
Watch Test	.418	.458		-.407	.386		
Black Disk Test		.472	.368		.492	.375	
Odor Test	.401	.619					
Glass Test	.653		-.384				
Tone Test	.358		.539				-.370
Light Test	.353	-.506		.546			
Lemon Test	.673						.566
Body Sway Test		.404	.571		-.351		
Pendulum Test				.382		.797	
Progressive Weights	.310	-.557		-.399			
Co-judge Test	-.382		.382	-.353			.353
Gudjonsson Test	.574					.375	.451
Placebo Test	.367		.701				
Inkblot Test	.559				-.504	.350	

Extraction Method: Principal Component Analysis (7 components extracted)

**Table A-26**

Rotated Factor Solution for the Continuous Variables – Test Data

	Component Matrix						
	1	2	3	4	5	6	7
Hypnosis						.739	
Hand Test	.330	.364	.559				
Watch Test	.551				.575		
Black Disk Test					.842		
Odor Test	.413			-.588			
Glass Test	.743						
Tone Test			.743				
Light Test		.323				.756	
Lemon Test		.837		-.309			
Body Sway Test	-.369		.434	-.585			
Pendulum Test							.877
Progressive Weights				.722			
Co-judge Test	-.721						
Gudjonsson Test		.815		.312			
Placebo Test			.766				
Inkblot Test					-.302		.638

Extraction Method: Principal Component Analysis (7 components extracted)

**Table A-27**

Communalities Among the Continuous Variables – Test Data (3 Factor)

---

	Initial	Extraction
Hypnosis	.279	.027
Hand Test	.603	.419
Watch Test	.453	.227
Black Disk Test	.397	.108
Odor Test	.309	.517
Glass Test	.508	.409
Tone Test	.332	.246
Light Test	.535	.153
Lemon Test	.668	.388
Body Sway Test	.361	.139
Pendulum Test	.397	.035
Progressive Weights	.382	.321
Co-judge Test	.322	.165
Gudjonsson Scale	.616	.262
Placebo Test	.426	.999
Inkblot Test	.436	.291

---

Extraction Method: Maximum Likelihood Analysis



**Table A-28**

Total Variance Explained for the Continuous Variables – Test Data (3 factor)

Component	Total	% of Variance	Cumulative %
<b>Initial Eigenvalues</b>			
1	3.001	18.757	18.757
2	1.754	10.963	29.720
3	1.716	10.724	40.444
4	1.419	8.868	49.312
5	1.381	8.632	57.943
6	1.267	7.916	65.859
7	1.113	6.955	72.815
8	.963	6.017	78.832
9	.662	4.135	82.967
10	.637	3.979	86.946
11	.589	3.680	90.626
12	.468	2.923	93.549
13	.368	2.298	95.847
14	.302	1.891	97.737
15	.212	1.325	99.062
16	.150	.938	100.000
<b>Extraction Sums of Squared Loadings</b>			
1	1.532	9.578	9.578
2	2.126	13.285	22.863
3	1.038	6.487	29.350
<b>Rotation Sums of Squared Loadings</b>			
1	2.252	14.077	14.077
2	1.300	8.122	22.199
3	1.144	7.151	29.350

ExtractionMethod:MaximumLikelihoodAnalysis

**Table A-29**

Initial Three-Factor Solution for the Continuous Variables – Test Data

---

	Component Matrix		
	1	2	3
Hypnosis			
Hand Test		.564	
Watch Test		.435	
Black Disk Test			
Odor Test		.467	-.547
Glass Test		.610	
Tone Test	.469		
Light Test			
Lemon Test		.582	
Body Sway Test			-.335
Pendulum Test			
Progressive Weights			.505
Co-judge Test		-.381	
Gudjonsson Scale		.434	
Placebo Test	.999		
Inkblot Test		.490	

---

Extraction Method: Maximum Likelihood Analysis (3 components extracted)

**Table A-30**

Rotated Three-Factor Solution for the Continuous Variables – Test Data

	Component Matrix		
	1	2	3
Hypnosis			
Hand Test	.644		
Watch Test			
Black Disk Test			.304
Odor Test			.650
Glass Test	.611		
Tone Test		.369	
Light Test	.343		
Lemon Test	.534		.317
Body Sway Test			.337
Pendulum Test			
Progressive Weights	.386		-.375
Co-judge Test			
Gudjonsson Scale	.510		
Placebo Test	.327	.916	
Inkblot Test	.509		

Extraction Method: Maximum Likelihood Analysis (3 components extracted)

**Table A-31**

Communalities Among the Continuous Variables – Test Data (1 Factor)

---

	Initial	Extraction
Hypnosis	.279	.003
Hand Test	.603	.443
Watch Test	.453	.114
Black Disk Test	.397	.001
Odor Test	.508	.321
Glass Test	.332	.072
Tone Test	.535	.081
Light Test	.668	.374
Lemon Test	.361	.000
Body Sway Test	.397	.006
Pendulum Test	.382	.069
Progressive Weights	.322	.096
Co-judge Test	.616	.245
Gudjonsson Scale	.426	.082
Placebo Test	.436	.256
Inkblot Test	.309	.102

---

Extraction Method: Maximum Likelihood Analysis

**Table A-32****Total Variance Explained for the Continuous Variables – Test Data (1 factor)**

Component	Total	% of Variance	Cumulative %
<b>Initial Eigenvalues</b>			
1	3.001	18.757	18.757
2	1.754	10.963	29.720
3	1.716	10.724	40.444
4	1.419	8.868	49.312
5	1.381	8.632	57.943
6	1.267	7.916	65.859
7	1.113	6.955	72.815
8	.963	6.017	78.832
9	.662	4.135	82.967
10	.637	3.979	86.946
11	.589	3.680	90.626
12	.468	2.923	93.549
13	.368	2.298	95.847
14	.302	1.891	97.737
15	.212	1.325	99.062
16	.150	.938	100.000
<b>Extraction Sums of Squared Loadings</b>			
1	2.264	14.151	14.151
<b>Rotation Sums of Squared Loadings</b>			
No rotation possible			
ExtractionMethod:MaximumLikelihoodAnalysis			

**Table A-33**

One-Factor Solution for the Dichotomous Variables – Test Data

---

Component Matrix	
	1
Hypnosis	
Hand Test	.665
Watch Test	.337
Black Disk Test	
Odor Test	.319
Glass Test	.566
Tone Test	
Light Test	
Lemon Test	.612
Body Sway Test	
Pendulum Test	
Progressive Weights	
Co-judge Test	-.309
Gudjonsson Scale	.495
Placebo Test	
Inkblot Test	.506

---

Extraction Method: Maximum Likelihood Analysis (1 components extracted)

**Table A-34**

Reliability Analysis of the Dichotomous Variables – Test Data

(A) Reliability Statistics					
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items			N of Items
	.488	.484			15
(B) Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Hand Test	7.76	5.449	.310	.216	.435
Watch Test	8.04	6.163	.039	.162	.497
Disk Test	7.87	5.858	.138	.143	.478
Odor Test	7.74	5.664	.215	.312	.459
Glass Test	7.65	5.851	.145	.194	.476
Tone Test	7.72	5.949	.094	.133	.489
Light Test	7.60	5.737	.209	.195	.462
Lemon Test	7.60	5.585	.280	.324	.445
Body Sway	7.55	5.997	.105	.169	.485
Pendulum	7.65	5.851	.145	.117	.476
Prog. Weights	7.76	5.930	.101	.110	.487
Co-judge	7.59	6.144	.029	.126	.502
Gudjonson	7.62	5.604	.262	.199	.449
Placebo Test	7.85	5.673	.215	.189	.459
Inkblot Test	7.84	5.631	.232	.268	.455

**Table A-35**

Reliability Analysis of the Dichotomous Variables – Retest Data

(A) Reliability Statistics					
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items			N of Items
	.569	.577			15
(B) Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Hand Test	6.41	2.335	.101	.140	.292
Watch Test	6.63	6.679	.301	.320	.541
Disk Test	6.43	6.159	.247	.235	.545
Odor Test	6.44	6.521	.250	.322	.545
Glass Test	6.27	6.125	.394	.295	.515
Tone Test	6.29	7.691	-.210	.280	.629
Light Test	6.18	6.398	.287	.269	.537
Lemon Test	6.15	6.102	.427	.285	.509
Body Sway	6.11	6.766	.150	.257	.563
Pendulum	6.23	6.847	.100	.212	.574
Prog Weights	6.17	6.785	.130	.232	.567
Co-judge	6.43	6.988	.055	.191	.581
Gudjonson	6.44	6.447	.282	.267	.538
Placebo Test	6.46	6.350	.334	.318	.529
Inkblot Test	6.28	6.575	.206	.215	.553



**Table A-36**

## Reliability Analysis of the Continuous Variables – Test Data

(A) Reliability Statistics					
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items			N of Items
	.558	.537			15
(B) Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Hand Test	61.7700	301.423	.306	.361	.518
Watch Test	64.2872	316.112	.275	.372	.528
Disk Test	63.7355	334.839	.089	.189	.562
Odor Test	62.0459	318.363	.185	.297	.545
Glass Test	60.9769	303.534	.325	.392	.515
Tone Test	61.9769	317.711	.218	.137	.538
Light Test	60.6148	315.222	.235	.390	.534
Lemon Test	61.1838	296.471	.389	.445	.502
Body Sway	65.4597	356.251	-.028	.251	.562
Pendulum	64.7355	346.143	.065	.139	.560
Prog Weights	61.6493	319.517	.209	.201	.540
Co-judge	62.1552	369.221	-.192	.268	.606
Gudjonson	50.8562	257.211	.334	.313	.510
Placebo Test	65.0286	338.915	.298	.214	.540
Inkblot Test	62.9941	308.202	.308	.301	.520

**Table A-37**

Reliability Analysis of the Continuous Variables – Retest Data

(A) Reliability Statistics					
	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items			N of Items
	.660	.670			15
(B) Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Hand Test	51.5147	367.739	.418	.314	.623
Watch Test	53.0882	362.223	.512	.425	.616
Disk Test	52.1912	358.179	.427	.364	.622
Odor Test	51.5441	367.214	.378	.337	.630
Glass Test	50.5882	347.029	.476	.380	.612
Tone Test	50.6029	429.355	-.115	.193	.700
Light Test	50.0294	365.559	.343	.303	.634
Lemon Test	50.0000	343.918	.498	.435	.608
Body Sway	53.8235	422.319	.086	.242	.662
Pendulum	53.3088	406.627	.197	.331	.654
Prog Weights	49.5000	402.306	.081	.224	.672
Co-judge	52.3971	425.377	-.060	.144	.678
Gudjonson	42.7941	329.726	.309	.249	.648
Placebo Test	53.5882	394.253	.442	.298	.638
Inkblot Test	50.0882	378.029	.252	.164	.648

## VITA

Nicole A. Perez received her Bachelors degree in Psychology with a minor in Sociology at the University of Tennessee, Knoxville. She graduated Suma Cum Laude and was granted the Outstanding Undergraduate Student Award by the Department of Sociology. In 2004 she received a Masters Degree in Psychology at the same institution; and completed her doctoral degree in Philosophy with a concentration in Clinical Psychology in 2009. She is a member of American Psychiatric Association (APA), Division of Psychoanalysis (Division 39), the Appalachian Psychoanalytic Society (APS) and the Society for Clinical and Experimental Hypnosis (SCEH). During her academic training, she belonged to the Honor Society for Psychology (Psi Chi), the International Honor Society of Sociology (Alpha Kappa Delta), the Dean's list and the Chancellor's list. In 2008 she received the Paul Lerner Assessment Award granted by the Society for Personality Assessment (SPA) and was offered an internship position at the Medical University of South Carolina (MUSC).