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To the Graduate Council:

I am submitting herewith a thesis written by Morgun Elliot Custer entitled "The Relationship of Hypnotizability and Empathy: A Replication and Extension Study." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Arts, with a major in Psychology.

Michael R. Nash, Major Professor

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Vice Provost and Dean of the Graduate School

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

The Relationship of Hypnotizability and Empathy: A Replication and Extension Study

A Thesis Presented for the
Master of Arts
Degree
The University of Tennessee, Knoxville

Morgun Elliot Custer
May 2017

Abstract

A recent research article articulated the *Empathic Involvement Theory* of hypnotizability (EIT; Wickramasekera II, 2015). The theory holds that individual differences in hypnotizability are correlated with, and in part determined by, the capacity to empathize. I review the theory and the founding empirical study (Wickramasekera II & Szlyk, 2003) and detail our attempt to replicate these findings in our laboratory. We did not obtain statistically significant relationships between empathic ability and hypnotizability. I discuss these findings, the ramifications on the proposed empathy/hypnotizability question, and the larger agenda of whether hypnotizability connects with personality.

Keywords: hypnosis, hypnotizeability, empathy, Interpersonal Reactivity Index

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Chapter I: Review of the Literature

Hypnosis and Hypnotizability: What it is and How it is Measured

Even though trance and hypnotic phenomenon have been present in many cultures (Ellenberger, 1970), our theoretical understanding of hypnosis remains incomplete. Because researchers utilize multiple theoretical perspectives when investigating hypnotic phenomena, we have no single definition. Certain researchers have advocated a definition that, "… preserves pluralism—one that recognizes the incompleteness of our concepts, generates a level epistemological playing field, enables our theories to 'reach,' and which is relatively resistant to the Teflon shield of pre-emptive definition" (Nash, 2005, p. 266).

Division 30, the hypnosis division of the American Psychological Association, recently created a general definition, which states that hypnosis is, "A state of consciousness involving focused attention and reduced peripheral awareness characterized by an enhanced capacity for response to suggestion" (Elkins, Barbasz, Council, & Spiegel, 2015, p. 6). This definition avoids assigning hypnosis into one or another theoretical category and opens it up to theoretical plurality.

Measurement of Hypnotic Responsiveness

Hypnotizability is the characteristic that allows an individual to respond to hypnosis. It is broadly defined as a person's, "Ability to experience suggested alterations in physiology, sensations, emotions, thoughts, and behaviors during hypnosis" (Elkins, Barbasz, Council, & Spiegel, 2015, p. 6). Of note, hypnotizability does not seem to change over the course of life (Piccione, Hilgard, and Zimbardo, 1989). The first practitioners of hypnosis were keenly aware of individual differences in hypnotizeability. Franz Mesmer, who referred to hypnotic

phenomenon as 'animal magnetism', noted in the journal *Nouveau Mercure Savant d'Altone* (1775):

> I have noticed also that not all men can be equally magnetized: of ten persons that were present, only one could not be magnetized, who stopped the communication of magnetism. On the other hand, there was one of these ten persons who was so susceptible to magnetization that he could not approach a patient within ten feet without causing him tremendous pain. (cited in Laurence, Beualieu-Prévost, & Chéné, 2008, pg. 227)

It is noteworthy that other practitioners throughout the history of hypnosis have recognized stable individual differences in hypnotizeability: De Puysegur, Faria, Braid, Charcot, and Bernheim (detailed in Laurence, Beualieu-Prévost, & Chéné, 2008) being chief amongst them. The differences in individual hypnotizability spurred the ongoing exploration for psychological correlates that might account for these differences.

Researchers have since developed multiple measures to gauge hypnotizability. The first set of psychometric tests developed to gauge hypnotizability was the Stanford Hypnotic Susceptibility Scales (SHSS; Hilgard, 1962). The SHSS includes three gradations of increasingly complex hypnotic phenomena. While the SHSS: A and B (Weitzenhoffer & Hilgard,1959) focus on eliciting motor behaviors during the hypnotic procedure, the SHSS:C (Weitzenhoffer & Hilgard, 1962) assesses changes in cognitions. The creation of the Stanford Scales marks an important shift in the history of hypnosis as these were some of the first tools researchers could use to scientifically investigate hypnotizeability across different contexts.

The Harvard Group Scale of Hypnotic Susceptibility: A (HGSHS:A; Shor & Orne, 1963) similarly gauges hypnotizability through behavior responses but also allows experimenters to test

groups of participants rather than on an individual basis. Thus, the HGSHS: A has been utilized most often in studies that require large numbers of participants.

Psychometric Properties of Hypnotizability and its Stability Over Time

The HGSHS:A consists of twelve items of progressive difficulty. It typically takes about an hour to administer. After administration, participants tally their scores, which range between 0 and 12. Their total score indicates their overall hypnotizability score. The literature on the population distribution of scores is somewhat mixed; some studies show a bimodal distribution with peaks at 0-3 and 9-12 ranges (e.g. Shor & Orne, 1962) and others resulted in a skewed distribution with the majority in the low hypnotizeable range (e.g. Hilgard et al., 1961). A later study demonstrated hypnotizeability has the distribution expected of a normal population: one might expect around 15% to be highly susceptible to hypnosis, around 15 % to be non-responsive, and the remaining 70% to be moderately susceptible to hypnosis (Hilgard, 1965). A recent factor analysis found the reliability of the HGSHS:A to be .62, which the authors indicate is in the "statistically defensible range" (Piesbergen & Peter, 2006, pg. 68).

Some evidence suggests hypnotizability may be altered by social-cognitive elements of the hypnotic situation such as participants' expectations of whether or not they will be hypnotizeable (Council et al., 1986). Despite this, most researchers consider hypnotizability to be trait-like, remaining consistent across the lifespan and across different contexts. (Laurence, Beualieu-Prévost, & Chéné, 2008). In prior investigations into hypnotizeability researchers have failed to correlate it with measures on the NEO Big Five Inventory and the Minnesota Multiphasic Personality Inventory. (Parker, 1995; Barber, 1964) Furthermore, Piccione, Hilgard, and Zimbardo (1989) found that hypnotizability remains remarkably consistent over an individual's lifespan, having compared participants' hypnotizability stability coefficients over

intervals of 10 years (.61), 15 years (.82), and 25 years (.71) from original measurement. Despite intense investigation, hypnotizeability has for the most part retained its status as a reliable, consistent trait that is independent from other personality traits.

The Search for Correlates of Hypnotizability

Exactly what makes a person more or less hypnotizeable continues to be the subject of much research. Indeed, since the beginning of the field, researchers have sought the "holy grail," the single personality characteristic that correlates with hypnotizability. Unfortunately, these efforts have failed (Kihlstrom, 1985). The failure to find characteristics that correlate with hypnotizability has caused some researchers to conclude that personality variables are unrelated to hypnotizability (Barber, 1964; Hilgard,1967).

A promising study (Tellegen & Atkinson, 1974) examined the relation between absorption and hypnotizability. They defined absorption as, "… a predisposition or openness to experience alterations of cognition and emotion over a broad range of situations" (Roche & McConkey, 1990). Absorption occurs not only during hypnosis but whenever one "gets lost" in a book, a television program, or other immersive experiences. For this reason, it seems to share conceptual ground with another psychological construct, fantasy proneness. Tellegen and Atkinson (1974) developed a 34-item scale to measure absorption. Scores on their scale consistently find that absorption explains a modest degree (approximately 10%) of the variance in hypnotizability when measured in the context of a hypnotic induction. (Roche & McConkey, 1990; Spanos et al., 1987).

Some authors have pointed out, however, that phenomena like absorption are tainted by the problem of circularity (i.e., "They all refer to unusual experiences that are characteristic of the hypnotic phenomenon… (and) suggest only that individuals tend to be hypnotized because

they tend to manifest hypnosis-like behaviors" (Laurence, Beualieu-Prévost, & Chéné, 2008, p. 238). A further complication is that the relationship between absorption and hypnotizeability was found to be much smaller and statistically nonsignificant when the TAS was administered in a different setting than the hypnosis or hypnotic-like procedure (Council et al., 1986; Barnier & McConkey, 1999).

Despite the failure to find reliable personality correlates of hypnotizability, the search continues. One current path of inquiry involves the relation between empathy and hypnotizability. A recent special edition of the journal of the American Society of Clinical Hypnosis (AJCH) featured a series of articles discussing the merits and demerits of the "Empathic Involvement Theory" (EIT; Wickramasekera II, 2015). The founders of EIT assume that, "… hypnosis is a consequence of the empathic nature of human beings and the processes of self/other that underlie how we experience the world" (pg. 332). The aim of the present investigation is to review the theoretical claims of the EIT and the empirical support for its principal contentions. I will review the empirical evidence the authors cite to support the theory, examine its methodological integrity, and argue for the necessity of a new study performed under altered empirical conditions.

The Empathic Involvement Theory of Hypnotizability

The authors of the EIT define empathy as the psychological process that allows individuals to experience hypnosis. Their central claim is that, "… hypnosis is an inherently empathy-laden experience and that high hypnotizeables use their empathic talents to adapt to the perspectives, expectations, imagery, emotions, and body language that their hypnotist presents to them using the hypnotic procedure and hypnotic suggestions" (Wickramasekera II, 2015, p. 332). That is, empathic human beings have a higher capacity for understanding (either consciously or

unconsciously) the role expected of them by the hypnotist, and this allows them to experience the suggestibility of the hypnotist more fully. A logical consequence of this reasoning is that those who do not have empathic abilities cannot determine the expectations of the hypnotist and thus cannot experience the effects of hypnosis.

The EIT is rather novel, as there exists very little prior work explicitly connecting hypnosis and features of empathy. In the extant literature, one empirical study by Sidney Blatt et al. (1969) reported a couple of the study's hypnotists experienced a trance-like state which, notably, were also experienced by the research participants. Blatt et al. (1969) suggest this shared experience demonstrates the inclusion of transference/countertransference and empathy mediated elements in the hypnotic situation. Another such theorist was J.R. Hilgard (1979), who Wickramasekera II maintains "noted that a person's tendency to empathically identify with characters in literature and drama is highly predictive of hypnotic ability" (Wickramasekera II & Szlyk, 2003, p.390).

The EIT redefines hypnosis as: "… an experience of *enhanced empathy* and phenomenological alteration with the self in which a hypnotic subject utilizes *perspective taking, empathic concern, and empathic aspects of theory of mind (ToM)* to experience alterations in affect, behavior, consciousness, sensation, thoughts, and mind/body relationship that are suggested to him/her by a hypnotist and/ or through his/her own creative and imaginative directions" (Wickramasekera II, 2015, p. 331-332, emphasis ours). This definition shares structural features of the Division 40 definition (Elkins, Barbasz, Council, & Spiegel, 2015) but incorporates empathy as the ingredient necessary for hypnosis to take place. If this conclusion is correct we would expect there to be a significant correlation between empathic ability and hypnotizeability.

The authors of the EIT argue it has roots in earlier work in social-cognitive research that makes a connection between empathy-like phenomenon and hypnotizability (Wickramasekera II, 2015). In particular, they reference research concluding that hypnotic subjects tend to adopt the role of what a hypnotic subject "should be" (Sarbin 1950). Wickramasekera II (2015) argues that, in adopting the roles expected of them, subjects are employing a feature of empathy that is generally referred to as *perspective-taking,* a process through which a person accesses the thoughts, feelings, and expectations of another. In this vein of research, Sarbin (1950) found that individuals who felt more strongly pulled by role expectancies had higher scores on hypnotizeability. It is important to note that the findings of this and other social-cognitive research programs do not constitute personality correlates of hypnotizeability, as they are artifacts of the hypnotic situation, not of the individual's personality. As mentioned previously, there have been no empirical findings suggesting a relationship between hypnotizeability and personality traits. This makes Wickramasekera II & Szlyk's (2003) findings compelling in that in introduces the relationship between a feature of personality and hypnotizeability.

Reception of the Empathic Involvement Theory

The EIT has garnered significant interest in both research and clinical communities, having been the lead article in the 2015 edition of the *American Journal of Clinical Hypnosis* (*AJCH*) entitled *Empathy and Hypnosis*. Since this publication, each subsequent edition has featured articles addressing the EIT and its contribution to understanding empathy-moderated hypnosis phenomenon. For instance, Franklin and Grossenbacher (2015) suggest the imaginative abilities used in art therapy are also mediated by processes of empathy and that these same artistic imaginative capacities are brought to bear in the hypnotic situation. Janna Henning

(2016) utilizes the EIT in introducing her idea of mutual empathic exchanges that occur between hypnotist and subject in a so- called "co-trance" wherein:

> Client and therapist mutually engage in a shared state of consciousness, and a mutual bidirectional or multidirectional exchange of verbal and nonverbal, as well as conscious and unconscious, material occurs, and which may include shared taking on of roles and expectations in each party, as suggested by the other, particularly when both client and therapist are highly hypnotizable. (Henning, 2016, p. 276).

Other researchers see the introduction of the EIT as a trend towards a more phenomenological understanding of interpersonal elements of hypnosis. Ronald Pekala (2015) emphasizes the need for a turn towards a *noetic* understanding of the hypnotic experiences to explain the relationship between brain and mental states. Clearly, the EIT has been a source of inspiration in reevaluating how we understand the interpersonal processes taking place during the hypnotic situation.

The EIT has not been without its detractors, however. Deirdre Barrett (2016) conceptualizes two distinct groups of highly hypnotizable people: *fantasizers* and *dissociaters* (Barrett, 2010). She argues that empathy functions differently (and in some ways, not at all) in these high-hypnotizeable subtypes. She notes *fantasizers* demonstrate the ability to produce Cognitive Theory of Mind, broadly defined as the ability to understand other's thoughts, but through hypnosis tend to lack other crucial elements of empathy such as, "… forgetting other people were in the room, not hearing someone at first when spoken to, and not noticing someone leaving the room" (Barrett, 2016, p. 240). By their inability to experience others during hypnosis, this forecloses the possibility of empathic connection. She also argues that the *dissociater* subtype depends up dissociative psychological defenses and that "this projection of parts of the

self is again opposite the concept of empathy" (2016, p. 242.) In sum, her argument emphasizes that highly hypnotizeable individuals do not ubiquitously demonstrate empathetic processes, a concern which directly contradicts the central tenets of the EIT.

David Reid (2016) also challenges the merits of the EIT by considering its inverse: If individuals with high empathic ability should be highly hypnotizeable, then those with low empathic ability should not be hypnotizeable. He rejects this thesis, noting that individuals with autism spectrum disorder, including individuals lacking the ability to define their own basic emotions, are capable of being hypnotized (Yapko, 2009).

Empirical Evidence

In the most comprehensive review of the EIT, Wickramasekera II (2015), cites two empirical studies that have directly examined the relationship between empathy and hypnosis (Wickramasekera II & Szlyk, 2003; Wickramasekera II & Ran, 2008). In *Could Empathy be a Predictor of Hypnotic Susceptibility?,* Wickramasekera II and Szlyk (2003) conducted a group hypnosis protocol using the Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A). They also administered both the Davis Interpersonal Reactivity Index (IRI ; Davis, 1980; 1983) and the Tellegen Absorption Scale (TAS; Tellegen & Atkinson, 1974). The authors correlated the total HGSHS:A score with each of the four IRI subscales, a composite IRI score, and the TAS. The authors found significant positive correlations between the Total IRI score and HGSHS: A ($r=.41$, $p<.001$) and between the Empathic Concern subscale of the IRI and the HGSHS:A ($r=.31$, $p<.05$). The authors concluded that, "… the results of the study offer preliminary support for the hypothesis that empathy and hypnotizability share common conceptual ground" (Wickramasekera and Szlyk, 2003, p. 395). Again, this is a remarkable and important finding given the decades- long failure to find personality correlates of hypnotizeability.

The Interpersonal Reactivity Index (IRI)

Before delving into the methodology of the empirical study that grounds the EIT, it is important to review briefly the psychometric properties of the empathy scale used in the study, the Interpersonal Reactivity Index (IRI; Davis, 1980; Davis, 1983). The full IRI scale can be found in Appendix A. The IRI is a broad measure of empathy consisting of four subscales: Fantasy, Empathic Concern, Perspective Taking, and Personal Distress. The Fantasy subscale measures the degree to which a participant gets "caught up" in fictional narratives. One might consider this subscale as a measure of a person's ability to identify with imagined, as opposed to real, persons. The Empathic Concern subscale of the IRI measures the degree to which a person has sympathy or concern for others in need. It is associated with emotional reactivity (Davis,1983). The Perspective Taking subscale measures the participant's ability to take on the psychological perspective of others and can be construed as a measure of Cognitive Theory of Mind (ToM). The Perspective Taking subscale is notable for its associations with better interpersonal functioning, higher self-esteem, and less emotionality (Davis, 1983). Lastly, the Personal Distress subscale measures the degree to which someone experiences distressing emotions when around similarly distressed individuals. The Personal Distress subscale is notable for its associations with emotional vulnerability and a strong tendency for high scorers to experience chronic fearfulness (Davis, 1983). It should come as no surprise, then, that higher scores on the Personal Distress subscale indicate higher levels of social dysfunction.

While the four subscales can be summed to create composite IRI score, doing so is conceptually meaningless and not only renders, "… researchers' results invalid, but unknowledgeable readers are… misled" (D'Orazio, 2004, p. 173). It is an unfortunate fact that researchers across various psychological literatures have made the mistake of summing the

subscales into a composite score. Adding the subscales is conceptually meaningless because initial studies performed by the creator of the IRI indicated the four subscales are not positively correlated. Specifically, the Perspective Taking and Personal Distress subscales were repeatedly found to be negatively correlated (Davis, 1980, 1983). For this reason, it is inappropriate to treat them as conceptually similar variables that can be added to yield a total score.

Generally, the IRI has demonstrated good test-retest reliability, intrascale reliability and convergent validity with other measures of empathy (Davis, 1980), Overall, the IRI is rooted in a theory which sees empathy as a multifaceted and complex construct. In using the IRI, it seems vital to keep two things in mind: (1) Interpretation should be performed holistically, drawing upon each of the subscales to yield a nuanced understanding of the phenomenon in question. 2) Investigators should avoid the temptation to create a composite score, which has been shown to be conceptually meaningless and theoretically inaccurate.

Methodological Criticisms of EIT Research

In the seminal empirical paper underpinning the EIT, Wickramasekera and Szlyk (2003) ignored Davis's advice and utilized a composite IRI score. This decision has unfortunate consequences. Because combining the subscales into a total IRI score is conceptually meaningless (D'Orazio, 2004), we must disregard the significant correlations found between the total IRI scores and general hypnotizability. Having done this, the only significant correlation remaining is that between hypnotizability and the Empathic Involvement subscale of the IRI.[1]

Furthermore, the statistical reasoning behind the authors' conclusion appears flawed. In particular, the IRI was crafted intentionally as a multidimensional measure based upon a

[1] It is notable that in his most recent paper, Wickramasekera (2015) argued that empathy facilitates hypnotizability via participants' abilities to engage in *perspective taking*. Accordingly, we would expect scores on the Perspective Taking subscale to correlate with hypnotizability. They did not.

conceptualization of empathy as a complex and multifaceted phenomenon. If only one of the four subscales was required to demonstrate a statistically significant correlation with hypnotizeability, then the p for testing the hypothesis was not .05, as maintained by the researchers, but rather .2. This, of course, is an unacceptable statistical standard for an empirical experiment.

Another concern with the EIT research is that hypnotizability scores may be inflated due to context effects including the administration of both scales in the same setting, self-selective manner of recruitment, and homogenous participant population. In the Wickramasekera and Szlyk (2003) study, the IRI was administered immediately following the hypnosis procedure, a procedural confound that has been shown to artificially inflate correlations between hypnotizability and other measures (Council et al.,1986; Kirsch & Council, 1989). Administering measures in the same setting often causes "in context" effects, and some hypnosis researchers have cautioned to administer assessments in different settings to yield de-contextualized and thus more accurate correlations (Laurence, Beualieu-Prévost, & Chéné, 2008, Orne, 1962). Furthermore, the participants of the study were volunteer psychology graduate students and volunteers from mental health fields (Wickramasekera II & Szlyk, 2003, p. 393). These types of volunteers often achieve higher scores on hypnotizability than those who volunteer for other reasons (Boucher & Hilgard, 1962; Barabasz & Barabasz, 1992). The lack of variability in their sample population is also cause for concern as it decreases the generalizability of their results.

Reevaluation of the EIT

The need for an improved study is particularly salient in this instance as the empirical support for EIT contains substantial confounds. The present study attempts to improve upon the Wickramasekera II and Szlyk (2003) study by correcting for these potential confounds.

Hypotheses

I hypothesize that overall hypnotizability (HGSHS:A) will be significantly correlated with the Empathic Concern subscale of the IRI. Additionally, given its central importance to the EIT, I expect general hypnotizability (HGSHS:A) will also be significantly correlated with the Perspective Taking subscale of the IRI.

Chapter II: Methods

Participants

Participants were recruited from a large public university in the southeastern United States. They participated in return for course credit in their introductory psychology course. Students who participate in experiments for course credit provide hypnotizability scores less prone to inflation effects than those who volunteer for hypnosis studies. (Barabasz & Barabasz, 1992). A power analysis indicated the number of participants required to replicate the original study with a Type I error rate (alpha) of 95%, statistical power (beta) at .8, and an expected correlation coefficient between Empathic Concern and hypnotizability of r=.31, (as in the original study) indicated that 79 participants would be required (Hulley, et al., 2013). Data from 289 participants were collected so the minimum population size has been satisfied.

Materials

The Interpersonal Reactivity Index

The Interpersonal Reactivity Index (Davis, 1980; 1983) is a multifaceted self- report measure of empathy constituting of four subscales: Fantasy, Empathic Concern, Perspective Taking, and Personal Distress. The measure consists of 28 questions, with each subscale allocated 7 items. The scale includes 9 reverse coded items. These values were reversed before an analysis was performed. In the present investigation, the IRI was completed by participants before the hypnotic induction took place. The IRI was one of various personality inventories in a packet of 8.5 x 11 inch sheets of paper.

The Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A)

The HGSHS:A (Shor & Orne, 1962) is a hypnosis protocol that induces hypnosis to participants in a group setting. To complete the protocol, the hypnotist must administer the

hypnotic induction and make several behavioral suggestions to the group before taking them out of the hypnotic state. The participants are then asked to rate their responsiveness to the hypnotist's suggestions on a self- report measure. The results are tallied to compute an overall hypnotizability score which ranges from 0 (very low hypnotizability) to 12 (very high hypnotizability). The HGSHS:A was administered in a packet of 8.5 x 11 inch sheets of paper.

Procedure

The experiment was conducted in eight separate sessions of methodologically analogous procedures. Four doctoral-level psychology students trained in the administration of hypnosis protocols conducted the sessions. Participants entered a university classroom and were given packets including personality measures and the HGSHS: A self-report measure. Informed consent was disseminated and collected prior to beginning the experimental sessions. Students were told they could leave at any point in the protocol and still receive participation credit.

The IRI was completed before the hypnotic induction. While hypnosis was mentioned in the informed consent statement, it was not discussed explicitly until after the IRI was completed. In addition, the IRI was completed in the midst of other personality measures, making it more difficult for participants to know (and thus accommodate) the exact purposes of the study. After completion of these initial measures, the hypnotic induction was administered. The Harvard Group Scale of Hypnotic Susceptibility (HGSHS:A) self-report measure was completed immediately after. Participants then completed other personality measures before the session concluded.

Chapter III: Results

While 289 individuals participated in the study, some participants failed to complete all questions on test materials. Specifically, 23 of participants did not fully complete the HGSHS:A self- report measure. These protocols were removed from analysis leaving an N=266 of fully completed HGSH:A protocols.[2] The mean HGSHS:A was 6.13 (SD=2.86). Some participants also failed to complete all items on the IRI. In instances where items were incomplete the respective subscale was removed from analysis.

Effect of Experimental Group

A one-way ANOVA was calculated to determine whether hypnotizability differed significantly across the eight sessions. There was no significant main effect for group, $F(7, 258) = .497$, $p = .837$, indicating that hypnotizeability did not significantly vary due to experimental testing condition or hypnotist.

Intercorrelational Analysis

The correlations of interest to the present investigation were those between hypnotizeability and the Empathic Concern and Perspective Taking subscales of the IRI. The correlation between the Empathic Concern subscale of the IRI and hypnotizeability was found to be nonsignificant, r(259)= .021, p=.74. The correlation between Perspective Taking and hypnotizeability was also found to be nonsignificant, r(253)= -.074, p=.24. The composite IRI score was also calculated and correlated with hypnotizeability, and was also found to be nonsignificant, r(238)= .042, p=.51.[3]

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[2] Results were also computed including this data and the same conclusions could be drawn.

[3] Though conceptually meaningless, this correlation was calculated to replicate those relationships investigated in the original Wickramasekera II and Szlyk (2003) study.

Chapter IV: Discussion

Replication is often touted but egregiously neglected in psychological science. The intention of the present study was to review the Empathic Involvement Theory (EIT) and replicate its findings under improved empirical circumstances. Notably, no significant relationships were found between the HGSHS:A and any of the subscales of the IRI. Furthermore, these nonsignificant findings were found despite the IRI and HGSHS:A being administered in the same session, a confound which has been shown to artificially inflate the significance of correlations (Council, 1999; Kirsch &Council, 1989). The present investigation demonstrates that empathic ability, as captured by subscales of the Interpersonal Reactivity Index (Davis, 1980), is unrelated to hypnotizeability. These findings call into question the veracity of the conclusions drawn from the original empirical article grounding the EIT (Wickramasekera II and Szlyk, 2003). Future research and theory should not build upon the EIT until this disparity is addressed and remedied.

Wickramasekera II claims extant theory supporting the EIT includes the work of Josephine Hilgard (1979). In particular, he argues she observed a relationship between individuals who empathize with fictional characters and hypnotizability. A closer read of Hilgard's (1979) book, however, suggests this was a misinterpretation of her observations. Hilgard claims "the highly hypnotizeability person was capable of deep involvement in one or more imaginative-feeling areas of experience- reading a novel, listening to music, having an aesthetic experience of nature, or engaging in absorbing adventures of body or mind" (Hilgard, 1979, p.4-5).

Notably, Hilgard describes reading as one of many activities which elicit a perceptual experience that is reminiscent of the earlier conception of absorption *(*Tellegen & Atkinson,

1974). She argues some readers 'empathically identify' with characters, but does not argue that empathic readers are more likely to be hypnotizeable. Indeed, she explicitly states "the relationship between hypnotic responsivity and reading involvement… is positive, but the correlation is too low to serve the purposes of practical prediction." (Hilgard, 1979, p. 40) Though cited by Wickramasekera II (2015) as one of few existing theories in support of the EIT, these tentative observations can hardly be considered strong evidence for the EIT's assertions.

Having failed to replicate the EIT's empirical findings, one wonders where empirical efforts should be placed to better understand relational aspects of the hypnotic relationship. Perhaps we should build upon already established and replicated lines of research before investigating new avenues. Research investigating Archaic Involvement (Shor, 1962) have consistently demonstrated its correlation with hypnotizeability (Nash & Spinler, 1989; Repka & Nash, 1995; Grant & Nash, 1995). This research is based on the notion that hypnosis causes topographical regression that activates primary process mentation in participants. This type of thinking is defined by loose semantic associations, activation of unconscious thoughts, and a tendency towards reverie and dream-like mental images (Lyon & Nash, in press; Nash & Barnier, 2008). This topographical regression is theorized to increase transference within the hypnotist/participant relationship. Perhaps it is transference, not empathy, that more fully explains the unique relational immersion of hypnosis. Importantly, these research avenues investigate unique facets of the hypnotist/subject relationship but do not make assertions linking hypnotizeability with personality characteristics.

The desire to anchor hypnotizability within personality is understandable as it would resolve some of the inherent mystery of hypnotizeability. While the EIT was once a promising lead it does not appear to be the "holy grail" the field has desperately sought after.

Limitations and Future Directions

As is frequently the case in research conducted at universities, participants were undergraduate students. Research conducted with a more variable population would make the results more generalizable. A methodological criticism arises that both the IRI and the HGSHS:A were completed during the same session. In this situation the methodological weakness becomes a statistical strength, for even with the possibility of artificially inflated correlations no significant results were found.

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Appendices

Appendix A: The Interpersonal Reactivity Index

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, fill in the letter on the answer sheet next to the item number. READ EACH ITEM CAREFULLY BEFORE RESPONDING. Answer as honestly as you can. Thank you.

ANSWER SCALE:

1	2	3	4	5
DOES NOT DESCRIBE ME WELL				DESCRIBES ME VERY WELL

1. I daydream and fantasize, with some regularity, about things that might happen to me.	1	2	3	4	5
2. I often have tender, concerned feelings for people less fortunate than me.	1	2	3	4	5
3. I sometimes find it difficult to see things from the "other guy's" point of view.	1	2	3	4	5
4. Sometimes I don't feel very sorry for other people when they are having problems.	1	2	3	4	5
5. I really get involved with the feelings of the characters in a novel.	1	2	3	4	5
6. In emergency situations, I feel apprehensive and ill-at-ease.	1	2	3	4	5
7. I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.	1	2	3	4	5
8. I try to look at everybody's side of a disagreement before I make a decision.	1	2	3	4	5
9. When I see someone being taken advantage of, I feel kind of protective towards them.	1	2	3	4	5
10. I sometimes feel helpless when I am in the middle of a very emotional situation.	1	2	3	4	5
11. I sometimes try to understand my friends better by imagining how things look from their perspective.	1	2	3	4	5
12. Becoming extremely involved in a good book or movie is somewhat rare for me.	1	2	3	4	5
13. When I see someone get hurt, I tend to remain calm.	1	2	3	4	5
14. Other people's misfortunes do not usually disturb me a great deal.	1	2	3	4	5

15. If I'm sure I'm right about something, I don't waste much time listening to other people's arguments.	1	2	3	4	5
16. After seeing a play or movie, I have felt as though I were one of the characters.	1	2	3	4	5
17. Being in a tense emotional situation scares me.	1	2	3	4	5
18. When I see someone being treated unfairly, I sometimes don't feel very much pity for them.	1	2	3	4	5
19. I am usually pretty effective in dealing with emergencies.	1	2	3	4	5
20. I am often quite touched by things that I see happen.	1	2	3	4	5
21. I believe that there are two sides to every question and try to look at them both.	1	2	3	4	5
22. I would describe myself as a pretty soft-hearted person.	1	2	3	4	5
23. When I watch a good movie, I can very easily put myself in the place of a leading character.	1	2	3	4	5
24. I tend to lose control during emergencies.	1	2	3	4	5
25. When I'm upset at someone, I usually try to "put myself in his shoes" for a while.	1	2	3	4	5
26. When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.	1	2	3	4	5
27. When I see someone who badly needs help in an emergency, I go to pieces.	1	2	3	4	5
28. Before criticizing somebody, I try to imagine how I would feel if I were in their place.	1	2	3	4	5

Vita

Morgun Custer was born in Des Moines, Iowa to Jeffrey Custer and Angela Custer (Scharfenberg). He has five siblings: Konrad, Hunter, Emily, Kell, and Annaliese in order of age. He moved to Nashville, Tennessee at the age of 10. He graduated from Fred J. Page High School located in Rudderville, Tennessee. He graduated with his B.A. from the University of Tennessee at Knoxville in May of 2014 with a double major in Honors Philosophy and Psychology with a minor in English. He applied to graduate school at the University of Tennessee Knoxville for a Ph.D in Clinical Psychology under the mentorship of Michael R. Nash. He was fortunate to be accepted in the Fall of 2014 and continues to work towards his doctoral degree. After graduation, Morgun hopes to continue working clinically and to teach at a liberal arts university. Morgun has a wonderful and supportive fiancé, Jordyn Bidwell, and a basset hound, Banjo.