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**THE RELATIONSHIP BETWEEN CHILDHOOD ATTACHMENT  
STYLE AND ADULT DISSOCIATION**

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Bachelor of Arts in Psychology

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May, 2012

Submitted in partial fulfillment of requirements for the degree

MASTER OF ARTS IN PSYCHOLOGY

At the

CLEVELAND STATE UNIVERSITY

September, 2014

We hereby approve this thesis for

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# **THE RELATIONSHIP BETWEEN CHILDHOOD ATTACHMENT STYLE AND ADULT DISSOCIATION**

LAURA M. SWINEY

## **ABSTRACT**

The relationship between attachment style and dissociation was examined in this study. A total of 36 undergraduate students were administered self-report questionnaires that revealed their attachment style, and then underwent two tasks (dot-staring and mirror-staring) to evoke acute dissociative symptoms. In a repeated-measures design, it was found that individuals with insecure attachment experienced a significant increase in dissociation following both of the tasks than did those who were securely attached. Additionally, this increase was significantly greater for those participants who reported higher everyday dissociation.

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## **CHAPTER I**

### **INTRODUCTION**

Dissociation can be broadly defined as “a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment (American Psychiatric Association, 2004).” Both the fourth (DSM-IV-TR; American Psychiatric Association, 2004) and fifth (DSM-5; American Psychiatric Association, 2013) editions of the Diagnostic and Statistical Manual categorize the dissociative disorders as a separate class of psychiatric disorder. Additionally, dissociation can be found to some degree in everyday life in nonclinical populations. The current literature suggests that clinicians have a tendency to neglect or avoid diagnosing clients with dissociative disorders, resulting in a problem of underdiagnosis in the population, although diagnostic criteria may have been met for many of these individuals (Spiegel, 2006). Depersonalization, a major feature of dissociation, is described as a mental state in which an individual feels disconnected from his or her personal identity or self and is reported to be the third-most common complaint in psychiatric populations after anxiety and depression (Talbot, 1988). Similarly, some researchers believe that Depersonalization Disorder, one of the main dissociative disorders, is the third-most common psychological disorder, following depression and anxiety (Simeon, Guralnik, Knutelska, & Schmeidler, 2001). However, it is difficult to quantify this claim due to

widespread underdiagnosis of the dissociative disorders. Despite the relatively high prevalence of dissociative symptoms in the population, there is a notable lack of research in the area as compared with the literature available on other disorders and symptomatology.

Many studies that have focused on the etiology of dissociative disorders and symptoms have been centered on the popular notion that dissociation is related to traumatic experiences, such as physical or sexual abuse. While several of these studies have appeared to demonstrate some support for this theory (Bryant & Panasetis, 2005; Everest, 1999; Hulette, et. al., 2008), more recent theorists have suggested that more than a single isolated traumatic experience may be at work in the formation of dissociative symptoms.

The role of attachment theory in relation to the development of dissociative symptoms has generated a large volume of discussion and research in the past two decades. Attachment theory, which focuses on the infant-caregiver bond and its influence on a child's interpersonal development, has found its way into the literature on dissociation.

### **1.1 Attachment**

The origins of attachment theory can be traced to John Bowlby, a psychiatrist who was active from the late 1920s to early 1980s. Through his studies of familial interactions and child development (Bowlby, 1944; Bowlby, 1949; Bowlby, 1987), he formed a particular interest in the mother-child relationship and its effect on later emotional disturbances. Specifically, Bowlby was interested in observing mother-child separation, since separation is a concrete, easily observable event from which conclusions can be drawn about the nature of the relationship (Bretherton, 1992). Drawing from his studies

in other fields such as ethology and evolutionary psychology, Bowlby theorized that an infant's attachment to its mother is an evolutionary adaptation for survival; in times of fear, the child retreats back to the caregiver as its primary source of protection. Bowlby viewed the foundational roots he laid in attachment theory as a "conceptual framework" from which the development of attachment can be understood, while leaving room for exploration and further development of the literature (Stevenson-Hinde, 2007).

Mary Ainsworth, another key figure in the history of attachment theory, expanded on Bowlby's work by performing the first empirical studies on parent-infant separation (Ainsworth, 1979; Ainsworth & Bell, 1970; Ainsworth, Blehard, Waters, & Wall, 1978;). Ainsworth conducted several naturalistic observation studies of mothers interacting with their infants, including the Baltimore Project, in which she observed these interactions during home visits multiple times throughout a year (Bretherton, 1992). Her most frequently cited (and perhaps most significant) work came from an experiment known as "The Strange Situation" (Ainsworth & Bell, 1970). This involved a situation in which a parent and infant would play in a room, a stranger would enter and join, the parent would leave the room, leaving the baby and stranger alone, then the stranger would leave and the parent would re-enter. The focus of this naturalistic observation was primarily on how the infant responded to the parent upon the reunion. From these observations, four different attachment styles were identified: secure, insecure/avoidant, insecure/ambivalent, and disorganized/disoriented. Infants who were identified as securely attached demonstrated that they regarded the caregiver as a secure base; they felt comfortable exploring the playroom; and they greeted the parent warmly upon their reunion. Infants found to be insecure/avoidant tended to ignore or even run away from

the parent upon their return. Those that met criteria for the insecure/ambivalent pattern were found to resist the parent upon their return; sometimes pushing away and showing signs of distress. Finally, those exhibiting qualities of the disorganized/disoriented type were less common than the other identified patterns, but notably peculiar in their behavior. These infants would display “mixed signals” such as crying during separation then avoiding the parent upon reunion, walking toward the parent then freezing or falling down, or demonstrating stereotyped behavior such as rocking or hitting themselves. This fourth category is the one of greatest interest in regards to the emergence of dissociative symptoms later in life.

### **1.1.1 Parenting Styles**

Essential to the discussion of attachment theory and the parent-infant bond is the style of parenting exhibited by a child’s primary caregiver. The behaviors exhibited by the parent when interacting with the child can greatly influence the child’s attachment style, and thus the quality of the relationship (Yoshizumi, Murase, Murakami, & Takai, 2007). Developmental psychologist Diana Baumrind and other researchers identified four primary types of parenting styles: authoritative, authoritarian, permissive, and uninvolved (Baumrind, 1971). Authoritative parents tend to set clear rules for their children, yet operate in a democratic manner in which they are open to discussion with their children and avoid unnecessarily harsh or unwarranted punishment. Authoritarian parents, on the other hand, set very strict rules and standards for their children; viewing them as having adult-like responsibilities yet little or no rights (Baumrind, 1980). These parents may implement frequent harsh discipline in their parenting. The third type, permissive or indulgent parents, tend to be the opposite of authoritarian parents; viewing their children

as having the rights of an adult but little to no responsibilities. This type of parent is generally passive and is more responsive than punitive towards the child. A fourth category was identified by Maccoby and Martin (1983); that of the uninvolved parent. Uninvolved parents have both low responsiveness and low demandingness with their children, as well as little communication. In extreme cases, this type of parent may even be neglectful of the needs of the child.

While the parenting style profiles identified by Baumrind (1970) and Maccoby and Martin (1983) are commonly referred to in current child development literature, these patterns tend to refer to “normal” parenting styles; that is, parents who are not labeled as abusive or entirely neglectful (Darling, 1999). “Nontraditional” parents who exhibit harmful, negligent, or disorganized behavior toward their children may match the profile of an abusive, neglectful, or inconsistent parenting style instead of one of the traditional styles identified by Baumrind and others. Of particular interest to research on the appearance of dissociative symptoms later in life is the style of parenting labeled “inconsistent.” Parents who demonstrate inconsistent behavior, such as being afraid of the infant at times while at other times being protective, can create for the child a dilemma in which the parent is “at once the source and solution of fear and distress (Main & Hesse, 1990).” The baby comes to simultaneously view the caregiver as a source of protection as well as fear, and thus struggles to develop an appropriate, secure attachment style. Many theorists have suggested that it is this type of inconsistent parenting that leads to the disorganized attachment style found in some infants (Liotti, 2006; Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006; Out, Bakermans-Kranenburg, & VanIJendoorn, 2009).

The factors that lead to the development of such a parenting style have been examined considerably in the developmental literature. It is important to note that parents who are classified as inconsistent often demonstrate dissociative behaviors themselves when interacting with their child (i.e., entering a momentary trance-like state, freezing, drawing away from the child). Interactions of this nature have been identified by Main and Hesse (1990) to instill in the child a sense of “fright without solution.” There is evidence to suggest that one of the leading factors in parental dissociative interactions with infants involves a recent loss or trauma in the parent’s life (Carlson, 1998; Liotti, 1992; Liotti, 2004; Main & Hesse, 1990). Main and Hesse discovered that parents who suffered a traumatic loss less than two years prior to childbirth exhibited dissociative, inconsistent behaviors when interacting with their infants. In turn, these infants were found to develop disorganized attachment styles.

## **1.2 Dissociation in the Laboratory**

Despite the prevalence of dissociative disorders, as well as dissociative symptoms associated with a host of other disorders, very few studies have attempted to induce dissociation in subjects through nonpharmacological means. Nevertheless, through administering a variety of laboratory tasks to participants, it is possible to evoke dissociative symptoms in both clinical and nonclinical samples. A small number of researchers have attempted to investigate this (Leonard, et. al., 1999; Lickel, Nelson, Hayes Lickel, & Deacon, 2008; Miller, Brown, DiNardo, & Barlow, 1994). Techniques implemented in previous experiments to evoke such symptoms include dot-staring tasks, sensory deprivation, audio/visual stimulation using a Digital Audio-Video Integration Device (D.A.V.I.D.), and mirror-staring tasks. (Leonard, et.al.,1999; Miller, et. al., 1994).

The first known study to evoke dissociation using nonpharmalogical means was conducted by Miller et. al. (1994), and compared the administration of mirror-staring and dot-staring tasks (behaviors that were expected to evoke dissociation) with tasks that were predicted to not induce symptoms, such as looking at pictures in a photo album and reading names at random in a phone book. The study involved three groups: subjects with a diagnosis of panic disorder who reported experiencing depersonalization during panic attacks, subjects diagnosed with panic disorder who did not report experiences of depersonalization, and nonanxious controls who did not have a diagnosed mental disorder. Participants who were involved with these tasks also completed a diagnostic measure from one to twenty-three days prior to undergoing the laboratory tasks. The questionnaires completed included the Anxiety Disorders Interview Schedule-Revised (ADIS-R; DiNardo & Barlow, 1988), the Anxiety Sensitivity Index (ASI; Peterson & Reiss, 1987), Emotional Control Questionnaire (ECQ; Rapee, Craske, & Barlow, 1989), and the Depression, Anxiety, and Stress Scales (DASS; Lovibond & Lovibond, 1995). Once in the laboratory and immediately prior to beginning the tasks, more measures were completed, including the Depersonalization-Derealization Questionnaire (DDQ; Miller, et. al., 1994), the State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970), and the Diagnostic Symptom Questionnaire (DSQ; Sanderson, Rapee, & Barlow, 1989). The scores on these questionnaires were correlated with the results from the variety of laboratory tasks completed by subjects. The results indicated that all three groups experienced a substantial elevation of dissociative symptoms compared with their baseline rate, based upon their post-task responses to the DDQ.

Since the 1994 study undertaken by Miller and others, there have been very few attempts to empirically test dissociation in the laboratory. However, in a key experiment conducted by Leonard, et. al. (1999), participants completed the widely-used Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986) prior to arriving at the laboratory. There, they were tested with three evocative tasks: dot-staring, audio/photic stimulation, and sensory deprivation. Immediately prior to and after the completion of these tasks, their level of dissociation was tested. The findings indicated that participants who scored the highest on the DES reported the highest level of dissociation throughout the various tasks, especially the audio/photic stimulation test. More recently, Lickel, et. al. (2008) replicated dot- and mirror-staring procedures along with several other dissociation-evoking techniques in a sample of undergraduate student volunteers. The results showed that mirror-staring was the most effective task for producing symptoms of depersonalization in subjects out of eleven total dissociation-inducing techniques that were implemented in the experiment.

These studies show that it is possible to evoke dissociative symptoms in the laboratory through a variety of easily-administered procedures. Through purposeful evocation, it is possible to create dissociative experiences not only in people who have been diagnosed with a disorder, but also in nonclinical samples of the population. The authors of these studies (Leonard, et.al., 1999; Lickel, et. al., 2008; Miller, et. al., 1994) were all granted Institutional Review Board (IRB) approval to ethically conduct dissociation-inducing tasks. Additionally, researchers are able to test the level and severity of dissociation in individuals compared to their ordinary level of dissociation in day-to-day experiences (as measured by self-report questionnaires such as the DES).



These practices may prove useful in future studies, and could even be expanded upon to include other self-report measures to add to the body of literature on dissociation.

### **1.3 Research Proposal and Hypotheses**

The existing literature on dissociation is notably sparse compared with research on other types of disorders and symptoms, especially anxiety and depression. However, dissociation is prevalent in those with dissociative disorders as well as other mental disorders, and can even be found in mild forms in the general population. To a degree, nearly everyone experiences dissociation (e.g., daydreaming) at some point. The study of dissociation may prove to be an integral part of understanding mental illness in general, and further research in this area is needed to help add to the currently small body of knowledge.

Investigating the etiology of dissociation is especially important, as a relatively small amount of information about its causes is presently known. The theories that propose trauma alone as the cause of symptom development are being questioned (Giesbrecht, Lynn, Lilienfeld, & Merckelbach, 2008; Kihlstrom, 2005), and the role of parenting style and infant attachment are being seriously considered. Additionally, while it has been empirically demonstrated that it is possible to evoke dissociative symptoms in subjects through experimental measures (Leonard, et. al., 1999; Lickel, et. al., 2008; Miller, et. al., 1994), to date, very few studies have tested laboratory-induced dissociation and expanded upon the research.

The purpose of this study was to investigate the level of subjects' dissociation following tasks that are designed to evoke experiences of derealization and depersonalization, compare this to their baseline level of dissociation, and assess their childhood attachment to caregivers and current attachment in adult relationships. It was

hypothesized that individuals who report difficulties in attachment with early caregivers (through their PBI scores) would also demonstrate a similar attachment style in their adult relationships (as reflected by their scores on the ECR-S). Implementing a measure that assesses childhood attachment as well as one that looks at current attachment styles provides a more thorough picture of a subjects' overall attachment style. Furthermore, it was hypothesized that subjects with insecure attachment would report a higher baseline level of everyday dissociation (taken from DES scores as well as the first administration of the CADSS), and also experience more dissociative symptoms when intentionally evoked as compared to individuals with secure attachment. The hypotheses for this study were as follows:

**H1:** It was hypothesized that the two experimental tasks will increase reported dissociative symptoms in all participants (as measured by comparison of pre-test scores on the CADSS and CADSS scores after each of the tasks), regardless of attachment style. A paired-samples *t*-test was used to analyze CADSS scores prior to experimental tasks with each subsequent administration of the CADSS following the tasks, as well as a repeated-measures analysis of variance (ANOVA).

**H2:** It was hypothesized that individuals with higher levels of chronic, everyday dissociation (as evidenced by higher scores on the DES) will be more susceptible to experiencing dissociative symptoms immediately after each of the laboratory tasks (as evidenced by high scores on the CADSS) when compared to subjects who exhibit low scores on the DES. A two-way, mixed-model ANOVA was used when analyzing the data to measure differences between individuals with low and high levels of everyday

dissociation in terms of their CADSS scores, and a one- way ANOVA was additionally run to compare means.

**H3:** Finally, it was hypothesized that those individuals who may meet criteria for an insecure attachment style (based on PBI and ECR-S results) will be more susceptible to experiencing dissociation when intentionally evoked (based on the CADSS results after each of the laboratory tasks) than subjects who meet criteria for secure attachment (based on PBI and ECR-S results). A two-way, mixed-model ANOVA was again used to look at differences between two groups (those with secure attachment and those with insecure attachment, based on PBI and ECR-S categorization) in terms of mean scores on all three administrations of the CADSS. A one-way ANOVA was also conducted to compare means.

## **CHAPTER II**

### **METHOD**

The proposed research aimed to investigate the attachment pattern of subjects based on the style of parenting exhibited by their primary caregivers as well as their current style of relating to others in intimate adult relationships and examine the level of acute dissociation when dissociative symptoms are intentionally evoked. The relationship between acute dissociation and other variables (attachment style and level of everyday dissociation) was assessed. A nonclinical sample of participants was administered self-report measures that relate to attachment and parenting style of their parents (the Parental Bonding Instrument [PBI; Parker, Tupling, & Brown, 1979] and the Revised Experiences in Close Relationships Questionnaire [ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007]). They were also administered a self-report measure that asks about trauma; the Trauma History Questionnaire [THQ; Green, 1996]) to account for any traumatic life experiences that might influence their resulting scores. The resulting scores from the THQ were taken into account when analyzing the data for a relationship between parenting styles and dissociation. Additionally, a dissociative experiences scale (such as the DES) was administered in order to assess dissociation reported in everyday life. After completing these measures, subjects engaged in laboratory tasks (the dot-staring and mirror-staring tasks that were conducted originally by Miller and others and recently replicated by Lickel and others), and then reported their feelings of dissociative experience immediately following these tasks by completing the Clinician-Administered

Dissociative States Scale (CADSS; Bremner, et. al., 1998). Scores of the resulting dissociation were correlated with the scores from the previously completed self-report measures to investigate correlations between style of attachment, self-reported everyday dissociation, and the amount and severity of acute dissociative symptoms that were induced through laboratory tasks. Providing repeated administrations of the CADSS was necessary to measure a baseline level of dissociation (prior to completing either task), as well as assess the level of dissociative symptoms following each task. The CADSS was designed by Bremner, et. al. (1998) to be used as a repeated measure to assess state changes. In order to counterbalance for order effects in this experiment, the subjects were divided into two groups; one completed the dot-staring task first; the other first underwent the mirror-staring task.

## **2.1 Participants**

The participants included in this study consisted of 36 student volunteers. Students recruited from a database of undergraduate psychology majors at Cleveland State University were informed of an opportunity to participate in an experiment with extra credit as compensation. The students received a copy of an Informed Consent that described the research as an hour-long study that would consist of two perceptual tasks and completion of several questionnaires (see Appendix J). It also stated the expectations of the participants, provided the opportunity for withdrawal from the experiment at any time and with no penalty, and provided contact information of the primary and student investigators in the experiment as well as the Cleveland State University Institutional Review Board (see Appendix I). The inclusion criteria for the participants required that individuals be at least 18 years of age and being fluent in English. In this paper, the terms

“participant”, “student”, and “subject” will be used interchangeably to describe experimental volunteers, and the terms “experimenter”, “researcher”, and “investigator” will be used in reference to the individual conducting the experiment and guiding participants.

## **2.2 Design**

This experiment followed a repeated measures design. Half of the participants completed the dot-staring task first, and half completed the mirror-staring activity first. The subjects were divided in this manner to counterbalance for order effects. Each individual participated in both the mirror- and dot-staring activities. The dependent measure was the Clinician-Administered Dissociative States Scale (CADSS; Bremner, et. al., 1998), which participants completed once before the first task, once in between tasks, and once at the end of the second task, for a total of three administrations (see below for discussion of the instrument).

## **2.3 Materials**

For the most accurate replication of previous experimental procedures, the materials for these tasks exactly duplicated those implemented by Miller and others (1994). For the dot-staring task, a blank piece of paper containing a black dot that is 2 inches in circumference was used, and placed on a wall 6 inches in front of the student. For the mirror-staring task, a 2' x 3' mirror was used, and was held vertically by the participant on his or her lap.

## **2.4 Measures**

The self-report measures used for this experiment included the Trauma History Questionnaire (THQ; Green, 1996), the Parental Bonding Instrument (PBI; Parker, Tupling, and Brown, 1979), the Experiences in Close Relationships Questionnaire-Short

Form (ECR-S; Wei, et. al., 2007), and the Dissociative Experiences Scale (DES; Bernstein & Putnam, 1986). Each of these measures has demonstrated sufficient reliability and validity, and have been successfully used in a number of studies since its creation.

The THQ (Green, 1996) is a questionnaire that asks individuals to review a series of questions about serious or traumatic life events that may have occurred over the person's lifetime. The THQ has good reliability and validity in clinical and nonclinical samples. Hooper, Stockton, Krupnick, & Green (2011) gathered information from 60 studies that utilized the THQ to measure participants' level of past trauma. Several of these studies included interrater reliability testing. Of note was a study by Mueser, et. al. (2001) that surveyed individuals with severe mental illness using the THQ to assess history of trauma. Interrater reliability was excellent for trauma categories that were present in at least 20% of participants, showing kappas ranging from .76 (sexual assaults) to 1.00 (accidents and witnessing a murder or serious injury). In terms of validity, Hooper et. al. (2011) reviewed numerous studies that demonstrated adequate internal and construct validity. In terms of construct validity, a study by Mueser, et. al. (1998) found that the THQ was successful in measuring traumatic experiences that were predictive of a diagnosis of posttraumatic stress disorder (PTSD). The THQ can be found in Appendix D.

The PBI (Parker, Tupling, & Brown, 1979) is another retrospective questionnaire in which individuals assess various attitudes and behaviors shown by each of their parents during the individual's childhood. There are separate, parallel forms for the mother and for the father, asking questions regarding various parental behaviors and

attitudes. The measure consists of two scales that were developed through a factor analysis to reveal two areas that are essential in the assessment of attachment: parental care and parental overprotection. The resulting scores of an individual's responses on both scales correspond to the attachment style classifications originally identified by Ainsworth & Bell (1970) in the Strange Situation. In a recent review of the existing data on the psychometric properties of the PBI, Ravitz, Maunder, Hunter, Sthankiya, & Lancee (2010) reviewed studies that assessed the discriminant validity of the measure between clinical and nonclinical populations as well as its convergent validity when compared with the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1996), a well-established attachment measure. According to Manassis, et. al. (1999), the PBI showed significant discriminant validity between clinical and nonclinical populations. Regarding convergent validity, Manassis, et. al. (1999) found the PBI to be comparable to the Adult Attachment Interview in terms of information obtained regarding attachment patterns in nonclinical populations. The PBI is located in Appendix E.

Several researchers have demonstrated that the ECR-S (Wei, et. al., 2007), a questionnaire that measures adult attachment through asking a series of questions about personal feelings in romantic relationships, contains good internal consistency, and sufficient test-retest reliability. This abbreviated form of the original Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998) was revised by Wei, et. al. (2007) to take less time for participants to complete while still retaining satisfactory psychometric properties. Wei and colleagues tested the original ECR and the ECR-S for internal consistency, and found that correlations between scores on the tests' two scales (anxiety and avoidance) were .94 and .95, respectively, indicating the short form of the



questionnaire assesses the same underlying constructs as the original version.

Wongpakaran and Wongpakaran (2012) found acceptable test-retest reliability (intra-class correlation coefficient = .75) in a study involving both clinical and nonclinical participants completing a variety of close relationship measures. The ECR-S is attached in full in Appendix F.

The DES (Bernstein & Putnam, 1986) is the most widely-used self-administered scale of measuring dissociation (Wright & Loftus, 1999), and contains a series of questions that asks test-takers to assess the percentage of time (from 0% to 100%) in daily life they experience dissociative phenomena. The DES has undergone rigorous testing for validity and reliability. The DES was found by Carlson & Putnam (1993) to yield high internal reliabilities among factors (Cronbach's  $\alpha \geq .90$ ). VanIJzerdoorn & Schuengel (1996) reported on a series of meta-analyses to investigate psychometric properties of the DES. They found the measure to demonstrate excellent convergent validity with other dissociative experience questionnaires (combined effect size:  $d = 1.82$ ;  $N = 5,916$ ). They also discovered that the DES contains excellent predictive validity, especially in regards to dissociative disorders and traumatic experiences. The DES may be found in Appendix G.

The measure that was administered to each participant three times (once prior to the first task, one time between the two tasks, and once again immediately following the second task) is the Clinician-Administered Dissociative States Scale (CADSS; Bremner, et. al., 1998). The questions on this form, which were delivered by an audio recording, ask participants to describe on a scale from 0-4 the degree to which they are presently experiencing a variety of dissociative symptoms. The CADSS was designed to be used as

a repeated measure. This instrument has been shown to demonstrate good inter-rater reliability and construct validity (Bremner, et. al., 1998). Bremner and colleagues, who developed the instrument to measure current-state dissociative symptoms, assessed for inter-rater reliability by measuring agreement between two raters who were blind to the other's ratings (total score intraclass correlation coefficient = .92). In terms of construct validity, Bremner et. al. (1998) measured the correlation of 51 clinical-sample participants' total scores on the CADSS with their scores on the DES ( $r = .48$ ). The CADSS is attached in full in Appendix H.

## **2.5 Procedure**

Recruitment for participants for this study was primarily done by gaining instructor permission to visit a number of undergraduate psychology classes and speak briefly about the project to assess for interest. Extra credit was offered by the professors for these courses to students who participated in the study. Once a participant expressed interest in participating in the study, a date and time for participation was arranged between the investigator and the interested individual.

Each participant signed an Informed Consent (included in Appendix J), and had an opportunity to discuss questions with the experimenter and ensure that they felt comfortable proceeding. The subject was given an overview of the process by the experimenter, and was reminded that all responses would be kept anonymous. To ensure anonymity, each participant was randomly assigned an identification number that was not linked to their name. Only the subject's gender was linked to their number. After signing

the consent form, each participant completed the series of self-report questionnaires (the THQ, the PBI, the ECR-S, and the DES). The estimated completion time on each measure is approximated at five to ten minutes, totaling 20-40 minutes of testing. The participant was placed in a chair at a table facing the wall and asked to complete the measures and notify the experimenter when he or she was finished or in the event that he or she had questions regarding the material. The researcher sat on the opposite side of the room. After collecting the forms from the subject, the researcher administered the CADSS for the first time, using an audio recording of the instructions, to measure the individual's level of acute dissociative experiences before experimentation. The estimated completion time of the CADSS is 5 minutes.

After the first administration of the CADSS was given, the student was instructed by the investigator to complete the first of two experimental tasks. The entire sample of subjects (N=36) was randomly divided into two groups; Group A (n=18) performed the dot-staring task (Task A) first, and Group B (n=18) completed the mirror-staring task (Task B) first. A participant's placement in either Group A or B was randomly assigned. The entire experiment, from the introduction to the debriefing session at the end took approximately one hour to one hour and fifteen minutes per individual.

### **2.5.1 Task A**

The dot-staring task required the participant to sit in a comfortable chair 6 inches in front of a 2-inch circumference black dot on a piece of white paper that had been placed on the wall. The experimenter instructed the subject to stare at the dot for exactly 10 minutes. Each student was provided with a set of earplugs to help eliminate outside noise. The researcher then quietly took a seat in the back of the room and began the

stopwatch, gently informing the student when the allotted time had passed. The individual was then administered the CADSS, again answering the questions along with an audio recording of the instructions, lasting five minutes. If the subject belonged to the first group, they were then instructed on how to complete the next experimental task (the mirror-staring activity). If he or she belonged to the second group, the experimenter administered the CADSS for a final time and then began the debriefing session.

### **2.5.2 Task B**

The mirror-staring task followed a similar protocol to that of the dot-staring. Participants who were randomly assigned to complete this portion of the experiment first were given a 2x3-foot mirror to be held vertically on their lap, following the same procedures used by Miller and others (1994) in their original study on evoking dissociative symptoms. The experimenter instructed the participant to stare intently at their reflection in the mirror for a full 10 minutes, using the earplugs to block out external noise. At the end of this period, the investigator quietly informed the participant that time was up, and (depending on which group the subject was in) instructed the student on how to complete the mirror-staring task or the CADSS, with tape-recorded instructions one last time before being debriefed.

## **CHAPTER III**

### **RESULTS**

For this experiment, data were collected through questionnaires that were administered to participants. Each measure was later scored according to the instructions provided by the test developer. For the PBI and ECR-S, individuals were then assigned an attachment type category (secure, avoidant, resistant, or disorganized/unclassified), and further placed into a secure category (composed of respondents who scored as securely attached on the two measures; n=12) or an insecure category (comprised of those who were assigned to an avoidant, resistant, or disorganized/unclassified style of attachment; n=24). Items on the DES for each respondent were scored and each case was placed into a high everyday dissociation or low everyday dissociation category based on cutoff scores that were provided in the scoring instructions for the measure (1- High Everyday Dissociation and 2- Low Everyday Dissociation). For the CADSS, responses to each item were added and recorded separately for each administration that each individual was given, for a total of three CADSS scores (CADSS 1, CADSS 2, and CADSS 3).

For the first hypothesis, the prediction that participants (regardless of attachment style or everyday dissociation level) would experience a significant increase in acute dissociation following each experimental task was tested through a one-way repeated measures analysis of variance (ANOVA). There was a significant effect of dissociation

over time [ $F(2, 70) = 6.591, p = .002$ ]. To further analyze this effect, a paired  $t$ -test was calculated. The results showed a significant difference between the first administration of the CADSS ( $M = 5.11, SD = 6.61$ ) and the second administration ( $M = 7.11, SD = 7.72$ );  $t(35) = -2.43, p = .020$ , as well as a significant difference in the scores for the first administration ( $M = 5.11, SD = 6.61$ ); and the third administration ( $M = 8.00, SD = 8.54$ );  $t(35) = -2.84, p = .007$ . Additionally, an analysis of variance was conducted between the second and third administrations. In accordance with the hypothesis, there was no significant difference found between these two [ $F(1, 35) = 2.72, p = .108$ ]. A paired-samples  $t$ -test was also run between the second and third administrations, and the results were not significant as well [ $t(35) = -1.65, p = .108$ ]. Table I depicts the means and standard deviations for all participants on all three administrations of the CADSS.

The second hypothesis predicted that subjects scoring higher in levels of everyday dissociation would score higher on all administrations of the CADSS than those who reported a low level of general dissociation. Participants were assigned a high ( $n=12$ ) or low ( $n=24$ ) everyday dissociation category based on cutoff scores as instructed in the test developer's scoring manual for the DES. In order to test this hypothesis, a two-way mixed model ANOVA was used. This revealed a significant main effect [ $F(1, 34) = 11.94, p = .001$ ] for DES scores, indicating that those scoring high on everyday dissociation were more acutely dissociative following the dissociation-inducing tasks than low-scoring individuals. In addition, a significant main effect for time [ $F(2, 68) = 5.95, p = .004$ ] indicated that dissociation scores increased significantly over time across DES groups. The interaction was not significant; post-hoc analyses revealed a pattern identical to that described above. An additional one-way ANOVA was run to further

examine the comparison of means. The results were significant for all administrations; the first administration [ $F(1, 34) = 12.69, p = 0.01$ ], the second administration [ $F(1, 34) = 12.86, p = .001$ ], and the third [ $F(1, 34) = 6.43, p = .016$ ]. Table II displays the means, standard deviations, and standard error means for CADSS scores of those who report both high and low dissociation. Figure I displays the estimated marginal means for both high and low DES scores over time.

Finally, it was hypothesized that participants with insecure attachment would score significantly higher than subjects with secure attachment on all three administrations of the CADSS. For this hypothesis as well, a two-way mixed model ANOVA was used. This revealed a significant main effect for attachment categories [ $F(1, 34) = 5.57, p = .024$ ], indicating that those classified as insecurely attached were more acutely dissociative following lab inductions of dissociation than securely attached individuals. Additionally, a significant main effect for time [ $F(2, 68) = 4.46, p = .015$ ] revealed that acute dissociation increased over time across attachment groups. As with the second hypothesis, the interaction was not significant; post-hoc analyses revealed a pattern identical to that described above. A one-way ANOVA was also performed in order to further compare means. There was a significant effect found at the  $p < .05$  level for all three administrations; the first [ $F(1, 34) = 4.11, p = .050$ ]; the second [ $F(1, 34) = 6.38, p = .016$ ], and the third administration [ $F(1, 34) = 5.42, p = .026$ ] (see Table IV). Table III displays the means, standard deviations, and standard error means for CADSS scores of those who are classified as both secure and insecure. Table IV displays the results of the analysis of variance. Figure II displays the estimated marginal means for securely and insecurely attached participants over time.

A Pearson's correlation test was run to examine the correlation between the DES and the two administrations of the CADSS following each task. The correlation between the DES and the first administration of the CADSS was moderate ( $r = .45$ ,  $n = 36$ ,  $p = .006$ ), as was the correlation between the DES and the second CADSS administration ( $r = .46$ ,  $n = 36$ ,  $p = .004$ ). These findings support previous data and the implications are further explore in the discussion.



Table I

*Means, Standard Deviations, and Standard Error Means for CADSS Results of All Participants*

		Mean	N	Std. Deviation	Std. Error
<hr/>					
Mean					
<hr/>					
Pair 1	CADSS 1	5.11	36	6.611	1.102
	CADSS 2	7.11	36	7.719	1.287
Pair 2	CADSS 1	5.11	36	6.611	1.102
	CADSS 3	8.00	36	8.539	1.423

Table II

*Means, Standard Deviations, and Standard Error Means for CADSS Results for Individuals With High and Low Everyday Dissociation*

		N	Mean	SD	Std. Error
CADSS 1	High Dissociation	12	9.92	8.174	2.360
	Low Dissociation	24	2.71	4.059	.829
	Total	36	5.11	6.611	1.102
CADSS 2	High Dissociation	12	12.75	8.604	2.484
	Low Dissociation	24	4.29	5.513	1.125
	Total	36	7.11	7.719	1.287
CADSS 3	High Dissociation	12	12.75	9.411	2.717
	Low Dissociation	24	5.63	7.137	1.457
	Total	36	8.00	8.539	1.423

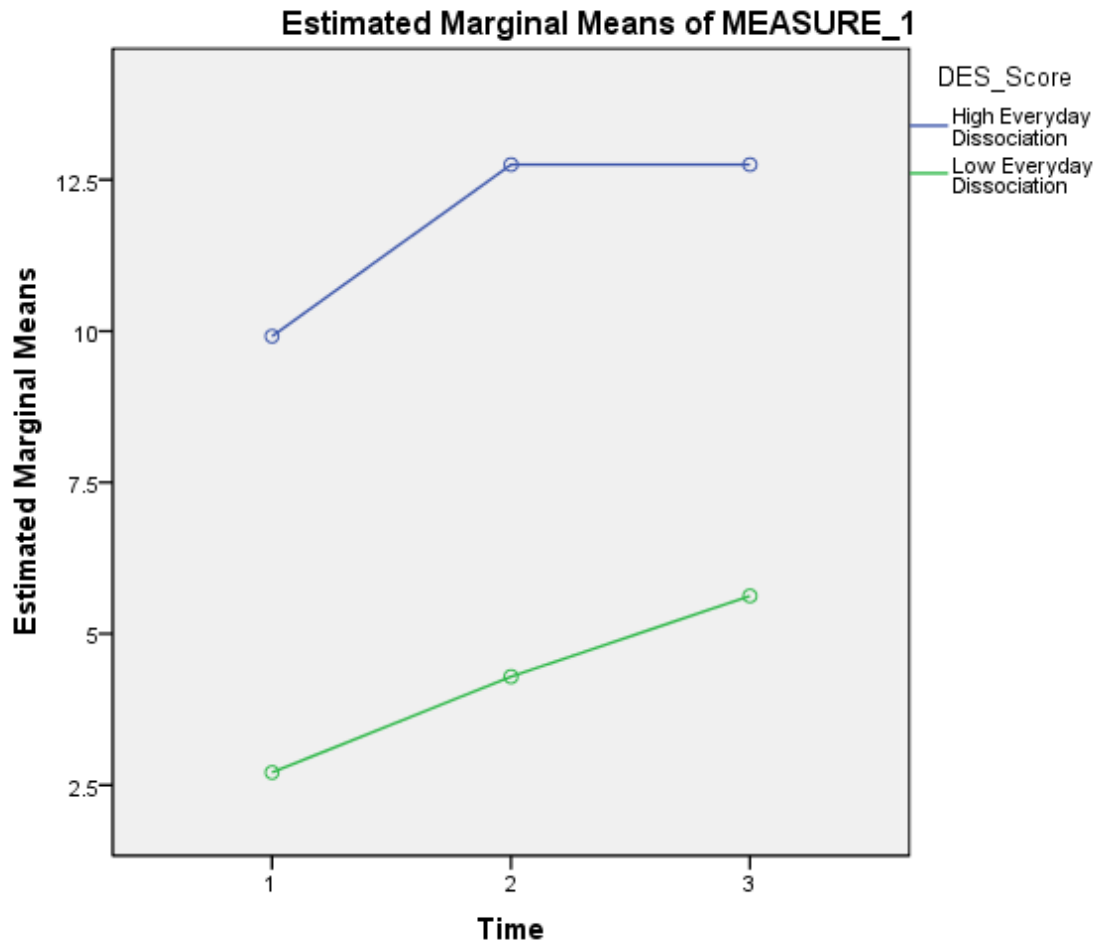


Figure 1. Estimated Marginal Means for High and Low Dissociators on the CADSS

Table III

*Means, Standard Deviations, and Standard Error Means for CADSS Results for Individuals With Secure and Insecure Attachment*

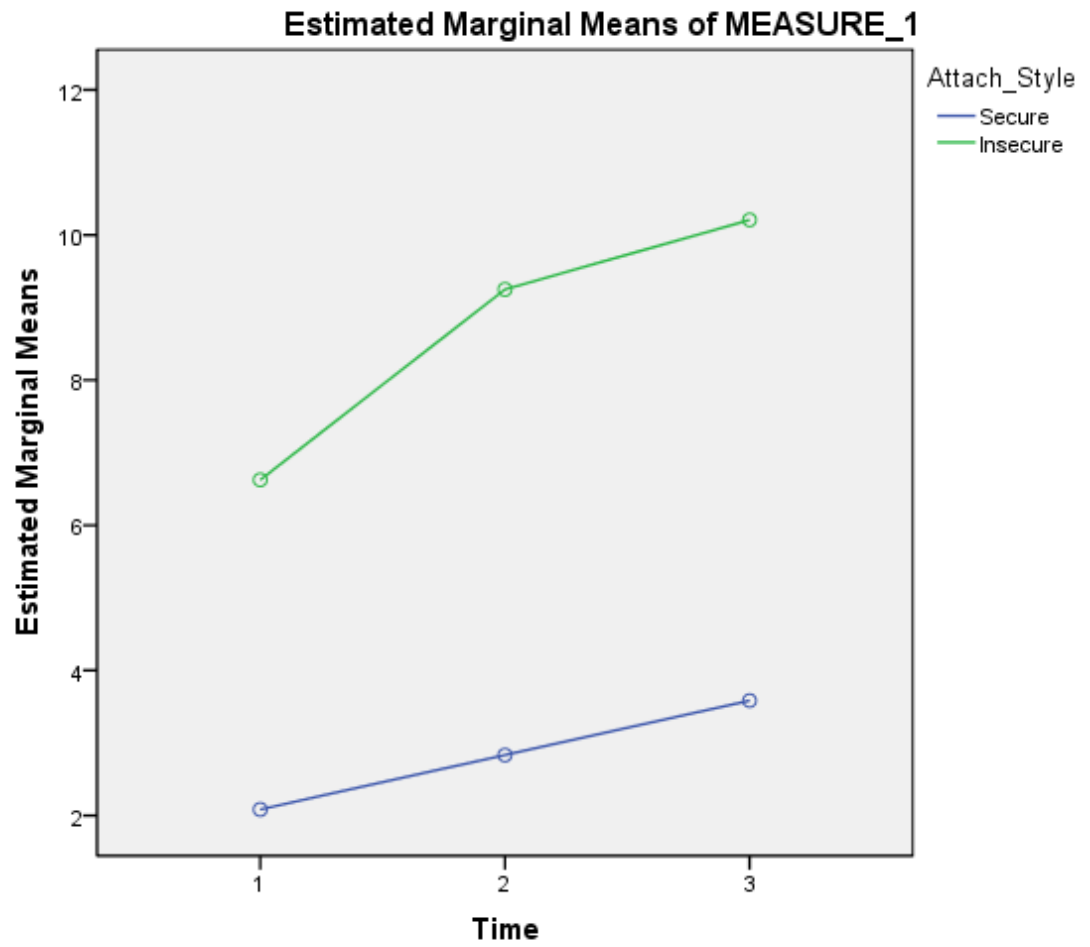
Error		N	Mean	SD	Std.
CADSS 1	Secure	12	2.08	3.450	.996
	Insecure	24	6.63	7.324	1.495
	Total	36	5.11	6.611	1.102
CADSS 2	Secure	12	2.83	3.298	.952
	Insecure	24	9.25	8.435	1.722
	Total	36	7.11	7.719	1.287
CADSS 3	Secure	12	3.58	4.252	1.228
	Insecure	24	10.21	9.330	1.904
	Total	36	8.00	8.539	1.423

Table IV

*Analysis of Variance Between Securely and Insecurely Attached Individuals on the CADSS*

		Sum of Squares	df	Mean Square	F
	Sig.				
CADSS 1	Between Groups	165.014	1	165.014	4.112
					.050
	Within Groups	1364.542	34	40.134	
	Total	1529.556	35		
CADSS 2	Between Groups	329.389	1	329.389	6.377
					.016
	Within Groups	1513.208	34	51.652	
	Total	2085.556	35		
CADSS 3	Between Groups	406.125	1	351.125	5.424
					.026
	Within Groups	2145.875	34	64.732	
	Total		35		

*Note. Significant at the  $p < .05$  level.*



*Figure II. Estimated Marginal Means for Secure and Insecurely Attached Individuals on the CADSS*

## **CHAPTER IV**

### **DISCUSSION**

The results from this study support the three proposed hypotheses. The first hypothesis predicted an increase in acute dissociation following the two experimental tasks. Indeed, a significant number of subjects (regardless of attachment style) indicated an increase in acute dissociation from the pretest level. This supports the prediction that the experimental tasks (dot- and mirror-staring) evoke a significant level of dissociation in participants. These findings are also supportive of past studies conducted (Lickel, et. al., 2008; Miller, et. al., 1994) that showed success in intentionally inducing dissociation in a controlled study.

In accordance with the second hypothesis, participants who scored in the high category of everyday dissociation (based on their DES scores) also reported more acute dissociation through significantly higher scores on each administration of the CADSS (including the baseline administration) than those scoring low in general dissociation.

Finally, the third hypothesis was supported by revealing that those who were insecurely attached (based on a category assigned by PBI and ECR-S scores) reported higher levels of acute dissociation with each administration of the CADSS following experimental tasks. Additionally, they scored higher on acute dissociation at pretest (the first CADSS administration) than did the securely attached participants.

Additionally, the correlation tests that were performed to analyze the DES along with subsequent administrations of the CADSS revealed moderate positive correlations. This is in accordance with results found by Bremner, et. al. (1998), who also found the measures to be moderately correlated ( $r = .48$ ). These findings could be reflective of the fact that the CADSS measures acute dissociative states while the DES measures the presence of chronic dissociative symptoms.

All proposed hypotheses were supported with significant results in this experiment. This has important implications for research in the field of dissociation. The etiology of dissociative disorders has been a relatively understudied topic in clinical psychology, and this analog study may be a substantial contribution to the existing body of dissociative literature. Specifically, this study explored the connection between attachment theory and dissociation, which adds to the foundation of understanding how dissociative symptoms may be formed. It supports previous research that rejects the notion that trauma alone is responsible for dissociative symptoms and disorders, and lends evidence to the role of insecure attachment in symptom development. Additionally, it is the first known study to intentionally evoke dissociation in a laboratory setting and measure the resulting symptoms in accordance with everyday dissociation as well as attachment styles.

#### **4.1 Limitations**

There are several limitations present in the completed study. The sample ( $N=36$ ) of participants was mostly drawn from undergraduate psychology courses, and most students in these classes were offered extra credit by their course professors. As with many experiments in the field of psychology, the fact that undergraduate psychology



students are commonly used as subjects presents a limitation in that these students presumably share at least some amount of similarity among one another, due to the fact that they share a major and are, for the most part, in a similar age cohort. Additionally, as with many studies that utilize psychology undergraduates, the majority of the sample size in this experiment consisted of white females. While both genders (24 female, 12 male) and a variety of ethnic groups (7 African-American, 5 Hispanic, 1 Asian) were represented, the fact that the majority of participants were younger Caucasian females may indicate that the results are not entirely representative of the population at large. In addition to the composition of the sample, the sample size contained considerably fewer participants than originally desired due to a lack of summer enrollment in undergraduate courses. Despite the relatively small sample size, the data supported the hypotheses with significant results.

Another limitation of this study involved the administration of the THQ. This measure was originally included in the packet of self-report questionnaires with the intention of statistically controlling for trauma as a potential factor contributing to dissociation. When the raw data for this measure was analyzed, however, it became apparent that a majority of respondents indicated that they had experienced substantial trauma during their lives. Thus, the scores were not statistically controlled for or used in data analysis. Future researchers aiming to replicate this study might either specify severe traumatic history as part of the exclusion criteria or obtain a larger sample size.

Other possible limitations to this study involve the nature of some of the questionnaires administered to participants. Two of the surveys (the PBI and the THQ) are retrospective measures that require subjects to recall events that have happened in the

past. With such measures, there is a chance that the individual is providing an inaccurate recollection of past events. Another factor to consider in any study involving human research subjects is the possibility of external factors serving as interruptions. Significant efforts were implemented in order to reduce outside distractions, particularly as subjects completed the two tasks. For example, each participant was given earplugs to help reduce outside noise, and a sign was placed conspicuously on the outside of the door in order to notify passersby that there was an experiment in progress.

#### **4.2 Directions for Future Research**

This study was unique in its investigation of attachment styles and intentionally-evoked dissociation, thus there is substantial opportunity for future experimenters to expand on the existing research. This experiment could be replicated utilizing a larger and more diverse sample size to test reliability with a greater number of individuals who may be more accurately representative of the general population. Recruiting participants from sources other than undergraduate psychology courses would likely produce a more diverse array of subjects in terms of gender, age, and race, as well as eliminate the common factor shared by students of psychology.

Researchers could refine the completed experiment by implementing different measures when collecting retrospective information from subjects. While the PBI and the ECR-S both are valid and reliable measures that reveal test-takers' attachment styles (both in childhood and adulthood), other assessments could be administered in conjunction with these measures in order to obtain a more complete picture of attachment style. Another assessment that could be altered or expanded on in similar experiments is the repeated measure (in this case, the CADSS) that was administered to participants

once to establish a baseline of dissociation, then twice more after each task. While the results of this experiment showed that there was a significant change in all participants from baseline to subsequent dissociation after each administration, using a different measure might ask participants to describe different, more applicable perceptions and sensations that they are experiencing at the time. Another alteration that could be made when designing a similar experiment may involve asking participants to complete different tasks that have been shown to evoke dissociation by other researchers. Examples of such tasks could include using sensory deprivation or audio/photic stimulation.

### **4.3 Clinical Implications**

In addition to the contribution that this study may have in the area of dissociative research and the existing literature, it also may be therapeutically useful. As the gaps in the understanding of dissociation begin to be filled, clinicians who stay informed of current research can use the growing body of knowledge on dissociation to help clients who have been diagnosed with a dissociative disorder, as well as those who report experiencing dissociative symptoms. Understanding the correlation between attachment and dissociation may assist practitioners in assessing patients in terms of their family history and current relationships. This may provide insight into the background of a highly dissociative individual, and help guide the therapist in terms of choosing the material to focus on during sessions. Clinicians can gain a broader understanding of the client's presenting problems and symptoms in the context of attachment and family history. Specifically, they may focus on discussing a client's childhood attachment and help the individual gain insight into how current relationships might be affected.

#### 4.4 Conclusion

The aim for this study was to empirically investigate the presence and severity of dissociative symptoms in the general population (using a nonclinical sample) as recorded through the self-report measure of the DES and laboratory tests that have been shown to evoke dissociative tendencies (Leonard, et. al., 1999; Lickel, et. al., 2008), and compare this to measures that investigate parental rearing style and individual attachment patterns.

At present, this is the first known study to pair information about attachment style with intentionally-induced acute dissociation. The results of this experiment found that insecurely attached individuals showed significantly more baseline dissociation at pretest, as well as a greater increase in acute dissociation scores over time. It also showed that those experiencing more everyday dissociation were likelier to report more acute dissociation after time, and additionally supported previous research in displaying that it is possible to purposely evoke dissociative symptoms through administering experimental tasks to participants. This information expands on previous research by supporting the importance of attachment style in both chronic and acute dissociative symptom development, and could be expanded upon and further explored in future research.

The results of this study may piece together currently existing information on parenting style and infant attachment and how insecure attachment may relate to the development of dissociative symptoms as well as the severity of symptoms when intentionally evoked. To date, no known study has attempted to piece together these elements through experimentation, and it is hoped that this endeavor will add a missing link in the etiology and understanding of dissociation.

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## **APPENDICES**

## APPENDIX A

### EXPERIMENTER SCRIPT FOR GREETING PARTICIPANTS

(Experimenter shakes participant's hand.) Hello, thank you for joining us today. Have a seat over here (motions to chair) and make yourself comfortable. I will explain what we are going to do today. (Experimenter sits down in a chair beside participant.)

I am going to start by handing you a copy of the Informed Consent. Take some time to read this over, and let me know if you have any questions at this time. When you have finished reading, if you decide to participate, please sign here (flips page and points to signature line). If you decide you are not comfortable participating, just let me know. There is no consequence at all for declining participation. (Allows student adequate time to read and sign document). (If subject agrees to participate by signing document): Thank you. (If subject declines to participate and does not sign document): So you've decided not to participate? (Waits for response.) No problem. There is absolutely no consequence. We thank you very much for your time and consideration. Take care.

Now, I am going to give you a packet of several questionnaires. I am going to ask you to take some time and fill out each one by yourself. Just answer as honestly as you can. Some of the questions might raise sensitive issues. Only proceed if you are comfortable, and remember you can opt out at any time. You can take as much time as you need with these questionnaires, but I will come back and check on you in about 20 minutes. Do you have any questions at this time?

## **APPENDIX B**

### **EXPERIMENTER SCRIPT FOR DOT-STARING PROCEDURE**

Have a look at this dot on the wall (motions to piece of paper that has been placed against the wall, 6 feet away from the chair, free of peripheral distractions). I am going to ask you to stare intently at this dot and nothing else for ten minutes; until my stopwatch beeps and I tell you that time is up. I will be sitting far on the other side of the room. Once I inform you that time is up, you can draw your attention away from the dot, and I will guide you through the rest of the experiment. Just remember to stare directly at the dot. Do you have any questions at this time?

## **APPENDIX C**

### **EXPERIMENTER SCRIPT FOR MIRROR-STARING PROCEDURE**

(Experimenter escorts participant into the room and motions to a chair.) Now, have a seat and get comfortable. I am going to hand you this mirror (hands mirror to participant). Just hold it by the sides and set it on your lap. I am going to ask you to stare intently at your reflection in this mirror and nothing else for ten minutes; until my stopwatch beeps and I tell you that time is up. I will be sitting far on the other side of the room. Once I inform you that time is up, you can draw your attention away from the mirror, and I will guide you through the rest of the experiment. Just remember to stare directly at your reflection in the mirror. Do you have any questions at this time?



**APPENDIX D**  
**THE TRAUMA HISTORY QUESTIONNAIRE**

**APPENDIX E**  
**THE PARENTAL BONDING INSTRUMENT**

**APPENDIX F**  
**THE EXPERIENCES IN CLOSE RELATIONSHIPS-SHORT FORM**  
**QUESTIONNAIRE**

**APPENDIX G**  
**THE DISSOCIATIVE EXPERIENCES SCALE**

**APPENDIX H**  
**THE CLINICIAN-ADMINISTERED DISSOCIATIVE STATES**  
**SCALE**

**APPENDIX I**  
**INSTITUTIONAL REVIEW BOARD APPLICATION**

## **APPENDIX J**

### **INFORMED CONSENT FOR PARTICIPANTS**

Dear Participant:

We are Laura Swiney and Dr. Stephen Slane, graduate student and faculty member, respectively, in the Department of Psychology at Cleveland State University. We are extending an invitation to you to participate in a research project in completion of a thesis project for Ms. Swiney's clinical psychology curriculum.

The purpose of this research is to gain insight into past experiences (including parental upbringing as well as childhood and adult trauma) as well as present-day levels of dissociation (dissociation describes a wide array of experiences from mild detachment from immediate surroundings to more severe detachment from physical and emotional experience) and how these things might be related. This experiment aims to add to the existing research on attachment and dissociation by replicating studies that have been conducted in the past, while taking into consideration childhood attachment and trauma history.

If you agree to participate in this study, you will be provided a date to meet with the researcher in person. Available dates, times, and further instructions will be provided to you in the initial e-mail you receive that contains the questionnaires. When you arrive to the designated room on campus, you will be greeted and provided with another review of the purpose and details of the experiment. You will be asked to complete a series of four questionnaires on your own (estimated total completion time is 20-30 minutes), then will be administered another survey (estimated completion time is 5-10 minutes). After these

measures have been completed, you will be randomly assigned to complete one of two tasks first before switching to the next. Each task takes exactly ten minutes, and there will be a twenty minute period in between, in which you will be given the survey by the experimenter again and have time to rest before the next task. Afterwards, you will be debriefed and encouraged to ask any questions as well as discuss your feelings on the experiment. More information about the debriefing process is provided below. The entire in-person session should take between one hour and one hour and fifteen minutes.

Your responses to the questionnaires that you complete before, during, and after experimentation will be treated in a completely confidential manner. Your name and other identifying information will not be linked with the data collected, and complete privacy will be guaranteed. Any reportage of research results will be in the aggregate, and your information will not be identifiable. There is one exception to confidentiality we need to make you aware of. In certain research studies, it is our ethical responsibility to report situations of current child abuse, child neglect, or any life-threatening situation to appropriate authorities. Additionally, any reportable crimes that are revealed (even if the crime occurred in the past) would require notification to the appropriate authorities. However, we are not seeking this type of information in our study nor will you be asked questions about these issues.

Participation is completely voluntary and you may withdraw at any time without penalty. There is no reward for participating or consequence for not participating. Potential risks associated with participation might include recalling negative memories associated with answering the trauma questionnaires, and feeling a slight to moderate temporary alteration in consciousness during laboratory tasks. The fact that there are exceptions to the



confidentiality agreement (which are listed above) is also a potential risk of which you should be aware. You have the right to terminate your participation during the experiment, at any time and for any reason. In order to minimize any potential risk to you, the researcher will check in with you regularly throughout the experiment to assess your level of comfort. Afterwards, the researcher will engage in a debriefing session with you to review the purpose of the study, explain the benefits of your contribution, and check in with you to ensure physical and mental well-being. An extensive list of resources complete with contact information will be provided to you before leaving, including local counseling services that you may contact at any time should you wish to continue processing any unpleasant thoughts or feelings. One week after the experiment, the researcher will contact you via phone or e-mail, depending on your preference, to assess continued emotional and mental well-being.

For further information regarding this research please contact Laura Swiney at (216) 647-9382, email: [lauraswiney@gmail.com](mailto:lauraswiney@gmail.com), or Dr. Stephen Slane at (216) 687-2587, email: [s.slane@csuohio.edu](mailto:s.slane@csuohio.edu).

If you have any questions about your rights as a research participant you may contact the Cleveland State University Institutional Review Board at (216) 687-3630.

There are two copies of this letter. After signing them, keep one copy for your records and return the other one. Thank you in advance for your cooperation and support. Please indicate your agreement to participate by signing below.

“I am 18 years or older and have read and understood this consent form and agree to participate.”

Signature: \_\_\_\_\_

Name: \_\_\_\_\_ (Please Print)

Date: \_\_\_\_\_

## **APPENDIX K**

### **EXPERIMENTER SCRIPT FOR DEBRIEFING PARTICIPANTS**

Thank you for your participation in this study. The purpose of this study was to gain insight into past experiences (including parental upbringing as well as childhood and adult trauma) as well as present-day levels of dissociation (dissociation describes a wide array of experiences from mild detachment from immediate surroundings to more severe detachment from physical and emotional experience) and how these things might be related. This experiment aims to add to the existing research on attachment and dissociation by replicating studies that have been conducted in the past, while taking into consideration childhood attachment and trauma history.

The study you participated in asked you to report traumatic events that may have occurred during your lifetime (the Trauma History Questionnaire), information on attitudes and behaviors of your parents as you were growing up (the Parental Bonding Instrument), your current attachment feelings and behaviors in adult relationships (the Experiences in Close Relationships Scale-Short Form), and the level to which you experience dissociative phenomenon in everyday life (the Dissociative Experiences Scale). The results of your answers on these questionnaires have been assessed in conjunction with your answers on all three administrations of the Clinician-Administered Dissociative States Scale (the questionnaire that was administered to you by the experimenter before the first experiment, after the first experiment, and after the second experiment). The purposes of collecting the information you provided in the questionnaires is to investigate your attachment style (how you bonded with your parents in early childhood, and how you relate to others in adulthood), the parenting style

exhibited by your parents when they were raising you, and the extent to which you experience dissociation in everyday life, and the extent to which you are capable of experiencing dissociative phenomena when they are intentionally evoked (through the dot-staring and mirror-staring tasks you performed).

This study hopes to piece together information on how parenting styles and early attachment developed in childhood can influence dissociative experiences later in life. There has been research conducted in the past that suggests a relationship between the “disorganized” style of attachment and a person’s tendency to experience dissociation in adulthood. This study aims to fill a gap in the literature by looking at your everyday level of dissociation (through your scores on the Dissociative Experiences Scale) and comparing it to the amount of acute dissociation you showed after each task (through looking at your scores on the Clinician-Administered Dissociative States Scale), and then considering your attachment style (through the responses provided on earlier measures). It is hoped that the results of this study will help researchers understand from where dissociative symptoms (and in more severe cases, dissociative disorders) could originate, and help clinicians take into consideration the role of early parenting and attachment when working with highly dissociative clients.

Please be aware that your results will be kept completely confidential, and that we do not keep any record of your identifying information (name or anything else), so data reporting will be anonymous; the results from all participants will be presented as group data. You still have the opportunity to withdraw your participation in this study; if for any reason you choose to opt out, your data will be properly destroyed and not included in the study. There will be absolutely no penalty to you should you choose to withdraw.

We realize that some of the material that was presented in the questionnaires might be sensitive, and could have triggered unpleasant thoughts or feelings. We also realize that the two tasks that you partook in purposely were constructed to evoke dissociation, and that this altered state of consciousness might have caused uncomfortable or adverse reactions. Please accept the resource sheet that will be handed to you; this paper contains the names and contact information of local counseling services and help lines (including a crisis hotline for severe and life-threatening situations as well as a warm line for discussing troubling thoughts and feelings that do not present immediate danger). We will follow up with you one week from now to check in with you regarding your feelings on participation as well as your state of mental well-being.

If you have any questions or concerns as to how the research was conducted or if you would like to see the results once the study has been completed, please feel free to contact myself or Dr. Slane (phone numbers and e-mail addresses are on the consent form you received at the beginning of the study, as well as on the resource sheet you are about to be handed). Once again, thank you greatly for your participation.