EXAMINING THE RELATIONSHIP BETWEEN EMOTIONAL SCHEMAS, EMOTIONAL INTELLIGENCE, AND RELATIONSHIP SATISFACTION

by

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Abstract

EXAMINING THE RELATIONSHIP BETWEEN EMOTIONAL SCHEMAS, EMOTIONAL INTELLIGENCE, AND RELATIONSHIP SATISFACTION

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A review of the literature revealed that the relationship between emotional intelligence, emotional schemas, and relationship satisfaction has not been fully explored. The purpose of this study was to examine the relationship between emotional schemas, emotional intelligence and relationship satisfaction in a sample of married individuals, utilizing a cross-sectional, correlational design to assess the constructs via validated assessment tools. Baron and Kenny's methodology for assessing mediating relationships was used to explore the relationship between these variables. Hierarchical multiple regression analysis demonstrated that the higher values dimension of emotional schemas accounted for 4.1% of the variance in relationship satisfaction after controlling for the variance (3.7%) that was accounted for by the facilitating thoughts branch of emotional intelligence. The current study provides empirical evidence that a weak connection does exist between the identified constructs.

Dedication

This paper is the culmination of a great deal of effort and sacrifice on the part of my wife, Beth, and our sons, Ben and Brady. While this dedication in no way compensates you for the hours lost over the past few years, it does in some small measure allow me to express my gratitude for the support and love that has sustained me during the discouraging portions of this journey. "Thank you" is not enough; I love each of you with all of my heart.

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CHAPTER ONE: INTRODUCTION

Overview

Relationship satisfaction has become one of the primary constructs utilized to assess the quality of dyadic relationships (Hendrick, 1988) and may be the most influential variable in the evaluation of romantic relationships (Graham, Diebels, & Barnow, 2011). Measured subjectively (Graham et al.; Hendrick), relationship satisfaction has been linked to various correlates, including mental health (e.g. Allen, Rhodes, Stanley, & Markman, 2010), physical health (e.g. Schokker et al., 2010), avoidant and anxious attachment (Saavedra, Chapman, & Rogge, 2010), and substance abuse (Papp, 2010). While research suggests that emotional intelligence and emotional schemas may also impact the level of satisfaction that an individual experiences in a relationship (Joshi & Thingujam, 2009; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), to date this link has not been fully explored.

Background to the Problem

Relationships are inherently interpersonal because by definition they require that an individual interact with at least one other individual. The quality of a relationship is based on an individual's internal criteria and their perception of how well a specific relationship meets those criteria (Vaughn & Baier, 1999). Accordingly, the construct of relationship satisfaction has evolved as a way to assess the quality of the interaction that an individual experiences within a particular relationship. As research into the quality of relationships has matured, multiple variables have been shown to influence relationships satisfaction (e.g. Allen et al., 2010; Papp, 2010; Schokker et al., 2010). In addition to empirically validated variables, researchers have

found evidence which suggest that emotional intelligence and emotional schemas may impact the level of satisfaction that an individual experiences in a romantic relationship (Joshi & Thingujam, 2009; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011). However, the paucity of evidence supporting the association between the variables suggests that additional research is required to examine the possible correlation between relationship satisfaction, emotional intelligence, and emotional schemas.

Relationship Satisfaction.

Relationship satisfaction, a subjective measure of the quality of a relationship, occurs when an individual views a particular relationship as meeting or surpassing their internal criteria for a good relationship better than any other relationship in which they are involved (Vaughn & Baier, 1999). The internal criteria by which an individual evaluates the quality of their primary romantic relationship is influenced by multiple factors (e.g. Baucom, McFarland, & Christensen, 2010; McNulty & Russell, 2010; Schokker et al., 2010; Yuan, McCarthy, Holley, & Levenson, 2010), including emotional intelligence (Joshi & Thingujam, 2009) and schemas (Marshall et al., 2011).

Emotional Intelligence.

While the antecedents of emotional intelligence can be found in conceptualizations of personal and social intelligences which trace their roots back to the early 20th century (Bastian, Burns, & Nettelbeck, 2005), the publication of *Emotional Intelligence* (Goleman, 1995) introduced the construct of emotional intelligence to the public at large and over time its

principles were embraced by various disciplines (Waterhouse, 2006). At the same time, the public interest in emotional intelligence was also reflected within the scientific community, as theorists and clinicians saw the potential implications of the paradigm shift within their various fields of study (Mayer, Salovey, & Caruso, 2008).

The modern concept of emotional intelligence was proposed by Peter Salovey and John Mayer in 1990 (Fiori, 2009; Fisher et al., 2010). In their original work, Salovey and Mayer (1990) defined emotional intelligence as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (p. 189). Known as the ability model, Salovey and Mayer's definition of emotional intelligence includes the awareness and identification of emotions in self and others, as well as the use of the identified emotional information to direct behavior. Thus some researchers hypothesize that emotional intelligence provides a pathway through which emotional information impacts individual behavior within a dyadic relationship, thereby influencing relationship satisfaction (Joshi & Thingujam, 2009).

Emotional Schemas.

Cognitive therapists theorize that schemas are central to the development and maintenance of chronic forms of psychopathology, including personality disorders and depression (Padesky, 1994). In a broad sense, schemas are responsible for structuring information, providing meaning, and guiding behavior (Thimm, 2010), and can be differentiated by their content (Conover & Feldman, 1984). For example, cognitive schemas focus on cognitions, relational schemas focus on relationships, and emotional schemas focus on emotions.

More specifically, emotional schemas "refer to plans, concepts, and strategies employed in 'response to' an emotion" (Leahy, 2002, p. 179). Therefore, Leahy implies that the manner in which an individual responds to an experienced emotion, by either normalizing or pathologizing the emotion, shapes their perception of the emotion and provides the data required to guide their subsequent interactions. When these emotions occur within the confines of an interpersonal relationship, an individual's emotional schemas inform their behavior, thus influencing the way that people handle emotion within relationships.

While researchers have linked schemas in general to the level of satisfaction individuals experience in their romantic relationships (Chatav & Whisman, 2008; Marshall et al., 2011), no direct link has been established between emotional schemas and relationship satisfaction. Similarly, although a relationship was noted by Greenberg and Safran (1989) between the predecessors of emotional intelligence and emotional schemas, no studies to date have examined the relationship between emotional intelligence and emotional schemas.

Statement of the Problem

Researchers have demonstrated that relationship satisfaction is influenced by multiple factors (e.g. Baucom, McFarland, & Christensen, 2010; McNulty & Russell, 2010; Schokker et al., 2010; Yuan, McCarthy, Holley, & Levenson, 2010), including emotional intelligence (Joshi & Thingujam, 2009). Although three distinct models (trait, ability, and mixed) of emotional intelligence have been proposed (e.g. Bar-On, 1996; Mayer, Caruso & Salovey, 1999; Petrides & Furnham, 2003), only the ability model has been directly linked to relationship satisfaction (Schutte et al., 2001). In a similar way, researchers have also linked schemas in general to the

level of satisfaction individuals experience in their romantic relationships (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), although no direct link has been established between emotional schemas and relationship satisfaction. Additionally, while research has identified a link between emotional intelligence and schemas in general (Greenberg & Safran, 1989), no studies to date have examined the possible mediating effects of emotional schemas on the consociation of relationship satisfaction and the ability model of emotional intelligence.

Purpose of the Study

The purpose of this study was to examine the relationship between emotional schemas, emotional intelligence and relationship satisfaction in a sample of married individuals. This study utilizes a cross-sectional, correlational design, assessing the constructs of emotional schemas, emotional intelligence, and relationship satisfaction in the sample population via validated assessment tools. Baron and Kenny's (1986) methodology for assessing mediating relationships was used to explore the relationship between these variables.

Research Questions

This study sought to answer the following research questions.

RQ1. Does emotional intelligence correlate with relationship satisfaction?

RQ2. Does emotional intelligence correlate with emotional schemas?

RQ3. Do emotional schemas correlate with relationship satisfaction after controlling for emotional intelligence?

RQ4. To what extent, if at all, do emotional schemas mediate the relationship between emotional intelligence and relationship satisfaction?

Significance of the Study

A study of the relationship between emotional schemas, emotional intelligence, and relationship satisfaction is important for several reasons. First, examining the relationship between emotional schemas and the ability model of emotional intelligence encourages future researchers to examine the relationship between emotional schemas and other models of emotional intelligence. This may serve to refine scientific understanding of emotional intelligence in general and provide support for a formulation of the ability model of emotional intelligence as a unique construct, distinct from personality and other forms of intelligence. Second, counselor educators may be able to utilize this increased understanding of the relationship between the three variables to further nourish their students' understanding of the role that cognition and emotion play in interpersonal relationships, thereby increasing their potential to become effective counselors. Third, understanding the mediational role of emotional schemas in the application of emotional intelligence may offer clinicians insight into the selection and use of more effective interventions. For example, the use of emotion focused therapy may provide another model by which marriage and family therapists can engage clients who struggle with recognizing and identifying their own emotions, and then productively applying this information on an interpersonal level. Finally, non-counselors may be encouraged to examine the roles that emotional schemas and emotional intelligence play, both within themselves and within their relationships. Overall, the data garnered from this research design

should enhance the understanding of the relationship that exists between emotional schemas, emotional regulation and relationship satisfaction.

Assumptions and Limitations

This study was limited to an accidental sample of individuals currently in a heterosexual marriage who responded to the assessments posted on Mechanical Turk, an Amazon-owned Web site that is increasing being utilized by behavioral researchers (Buhrmester, Kwang, & Gosling, 2011). For their role in the study, each of the participants was paid one dollar (United States currency). One of the limitations of this type of data collection is that the population is unknown (Vogt, 2005). More specifically, the participants' environment is uncontrolled and fake responses may taint the data (Gosling, Vazire, Srivastava, & John, 2004). With this in mind the results may not generalize to specific subsets of married persons, such as homosexual spouses, to populations outside of the United States, or to the general population. Nevertheless, recent studies (Buhrmester et al; Gosling et al.) indicate that the data gathered via Mechanical Turk is as valid as that gathered by traditional pencil and paper assessments.

As previously noted, the primary inclusion criterion specified that participants had to currently be engaged in a heterosexual marriage. Heterosexual marriages are the most common type of long-term relationship and have historically formed the basis of relationship satisfaction studies (Vaughn & Baier, 1999). Therefore the results may not generalize to specific subsets of married persons, such as homosexual spouses, or more universalized variations of romantic relationships such as cohabiting or dating couples.

With the exception of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT: Mayer, Caruso & Salovey, 2000), self-report instruments were utilized within the study; therefore the validity of the responses was reliant upon the self-awareness and integrity of the respondent. It was assumed that study participants possessed both of these qualities. Social desirability measures were not utilized to account for biased responding for two reasons: First, the anonymous nature of the data collection process diminishes the impact of altering answers for the benefit of others; and secondly, the two common measures utilized to assess social desirability have not been adequately examined, raising questions regarding both their validity and reliability (Leite & Beretvas, 2005). Additionally, because a mediation model implies causality, the use of self-report instruments may challenge the validity of the conclusions drawn from the data and should be taken into account when discussing the results of the study.

Finally, the use of a cross-sectional correlational design limits data collection to a single moment in time. The use of a longitudinal design would have provided data sequentially over a specified length of time; this would have provided a richer pool of data predicated upon assessing the consistency of each participant's ability and beliefs throughout an extended time frame.

Definition of Terms

Ability Emotional Intelligence: "The ability to engage in sophisticated information processing about one's own and others' emotions and the ability to use this information as a guide to thinking and behavior" (Mayer, Salovey & Caruso, 2008, p. 503). It is a subset of

emotional intelligence which can be assessed via instruments that resemble traditional intelligence tests (Austin, 2009).

Component Systems Model: Characterized by four layers of interrelated subsystems that progress sequentially from the microscopic to the macroscopic; the intrapsychic-biological matrix, the interpersonal-dyadic matrix, the relational-triadic matrix, and the sociocultural-family matrix (Magnavita, 2006a).

Emotional Intelligence: "The ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189).

Emotional Schemas: "Refer to plans, concepts, and strategies employed in 'response to' an emotion" (Leahy, 2002, p. 179).

Mixed Emotional Intelligence: An amalgam of intelligence (ability) and diverse amounts of personality and emotion (trait) that allows the individual to successfully cope with their social environment (Petrides & Furnham, 2001).

Relationship Satisfaction: When an individual views a particular relationship as meeting or surpassing their internal criteria for a good relationship better than any other relationship in which they are involved (Vaughn & Baier, 1999).

*Schemas: "*Organized elements of past reactions and experience that form a relatively cohesive and persistent body of knowledge capable of guiding subsequent perception and appraisals" (Segal, 1988, p. 147).

Trait Emotional Intelligence: An emotion-related trait which exists as a subset of personality and is measured via self-report (Vernon, Petrides, Bratko, & Schermer, 2008).

Theoretical Framework

The unified nature of human personality is characterized by four layers of interrelated subsystems. Moving sequentially from the microscopic to the macroscopic, they are the intrapsychic-biological matrix, the interpersonal-dyadic matrix, the relational-triadic matrix, and the sociocultural-family matrix (Magnavita, 2006a). Identified as the *component systems model*, its conceptual framework is derived from Bronfenbrenner's bioecological model of human development (Bronfenbrenner & Ceci, 1994; Magnavita, 2006a). Within the component system model, each of the four subsystems, or matrices, is made up of various domains. The interrelated, or "nested," nature of the subsystems implies the presence of some level of interaction between the subsystems. Therefore, the component systems model recognizes the ability of domains within one subsystem to influence domains within another subsystem. This study is interested in examining the relationship between three discrete domains (emotional intelligence, emotional schemas, and relationship satisfaction) that exist within the intrapsychic and interpersonal subsystems.

The intrapsychic-biological (or intrapersonal) matrix consists of "cognitive schema (core beliefs), affective-defensive processes, temperamental dispositions, and neurobiological underpinnings" (Magnavita, 2006a, p. 586). Each of these domains is considered to inhabit the intrapsychic matrix because the aforementioned schema, processes, dispositions, and underpinnings occur within the individual. This study proposes that emotional schemas, defined

as the "plans, concepts, and strategies employed in 'response to' an emotion" (Leahy, 2002, p. 179), also comprise a domain within the intrapsychic subsystem.

The interpersonal-dyadic matrix represents the interactions that occur outside of the individual and within dyadic relationships (Magnavita, 2006a). Emotional intelligence requires an awareness of one's feelings and the feeling of others, and utilizes this information to inform subsequent actions (Salovey & Mayer, 1990). Thus, emotional intelligence informs and guides an individual's interactions in a variety of interpersonal configurations. Although this conceptualization would permit emotional intelligence to meet the criteria for inclusion in the relational-triadic matrix as well, the instruments used in this study are dyadic in structure; therefore for the purpose of this project, emotional intelligence is included as a domain within the interpersonal-dyadic subsystem.

In a similar way, relationship satisfaction is also limited to the interpersonal-dyadic subsystem. Conceptualized within this study as an individual's evaluation of their primary romantic relationship (Vaughn & Baier, 1999), relationship satisfaction is included in the interpersonal-dyadic subsystem due to the dyadic nature of its definition.

The supposition that domains within one subsystem have the ability to influence domains within another subsystem has been supported by researchers (e.g. Gardner, 1983; Greenberg, 2008; Magnavita, 2006b), who have established an empirical link between the intrapsychic and interpersonal subsystems. In particular, emotional schemas, a domain within the intrapersonal subsystem, have been linked to emotional intelligence and relationship satisfaction, domains within the interpersonal subsystem (e.g. Greenberg & Safran, 1989; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011).

Within this context, the following logic provides a framework for the study: Due to the interrelatedness of the intrapersonal and interpersonal subsystems, emotional schemas will influence emotional intelligence and relationship satisfaction. More specifically, if subjects normalize their emotional schemas, they will score higher on measures of emotional intelligence, which in turn will result in these subjects reporting higher levels of relationship satisfaction than those who pathologized their emotional schemas.

Organization of the Remainder of the Study

The remainder of the study is organized as follows: the second chapter will present a review of the literature related to emotional intelligence, emotional schemas, and relationship satisfaction; the third chapter will discuss the study design, the rationale for the design, the methods and instruments used to assess each of the constructs, study procedures, data analysis, and ethical considerations; the fourth chapter will report the data obtained from the study; and the fifth chapter will summarize the findings and discuss the implication of the results, as well as make recommendations for further research.

Chapter Summary

Although there is an empirically established relationship between the intrapsychic and interpersonal subsystems, the relationship between the domains of emotional intelligence, emotional schemas, and relationship satisfaction have not been fully explored. The goal of this study is to examine the relationship between emotional intelligence, emotional schemas, and relationship satisfaction. More specifically, it is hypothesized that emotional schemas mediate the relationship between emotional intelligence and relationship satisfaction.

CHAPTER TWO: REVIEW OF THE LITERATURE

Overview

Human personality is characterized by four interrelated subsystems; the intrapsychic-biological matrix, the interpersonal-dyadic matrix, the relational-triadic matrix, and the sociocultural-family matrix (Magnavita, 2006a). In turn, each subsystem is composed of smaller units called domains. The interrelatedness of three of these domains, emotional schemas, emotional intelligence, and relationship satisfaction, is the subject of this study. While research suggests that emotional intelligence and emotional schemas may impact the level of satisfaction that an individual experiences in a relationship (Joshi & Thingujam, 2009; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), to date this link has not been fully explored. This chapter reviews the history, conceptualization, and theoretical underpinnings of each domain. Additionally, this chapter will discuss how the relationship between emotional schemas, emotional intelligence, and relationship satisfaction is conceptualized in the current study.

Relationship Satisfaction

The important role that relationships play within the life of the individual is foundational to the discipline of psychology and is widely accepted as a valid construct within the literature (e.g. Bowen, 1961; Bowlby, 1988; Burns, 2008; Goleman, 1995). Moreover, Veroff, Kulka, and Douvan (as cited in Fincham & Bradbury, 1987) found that relationship difficulties are a primary motivation for couples seeking therapy. As investigation into human interaction intensified,

relationship satisfaction became one of the primary ways of assessing relationships (Hendrick, 1988). In early paradigms, relationship satisfaction played an important role in the examination and evaluation of marital relationships (Hendrick); however, recent studies have expanded the conceptualization of relationship satisfaction beyond the confines of marital relationships to include a broader range of intimate consociations (Graham, Diebels, & Barnow, 2011). Despite the common usage of the construct to evaluate the quality of relationships, defining relationship satisfaction has presented unexpected challenges (Hendrick; Vaughn & Baier, 1999). In addition to the milieu created by the inclusion of related romantic relationships in the study of relationship satisfaction, multiple terms have been utilized to refer to the same construct (Heyman, Sayers, & Bellack, 1994), leading to the need for a unifying definition.

Relationship Satisfaction Defined

A variety of terms, such as *marital* (or the more contemporary term, *relationship*; Graham, Diebels, & Barnow, 2011) *happiness, satisfaction, quality, stability, consensus, integration, companionship* and *adjustment* have all been considered interchangeable (Fincham & Bradbury, 1987; Heyman, Sayers, & Bellack, 1994), despite the fact that they tend to be inadequately defined (Vaughn & Baier, 1999) or lack theoretical grounding (Heyman et al.). The amorphous meaning of each of these terms is further confused by the high degree of correlation that exists between the constructs, leading some scholars to argue that either they refer to the same construct or they are each a unique aspect of a higher order construct (Fincham & Bradbury). One means of addressing concerns related to construct evaluation is the utilization of a global instrument to assess relationship satisfaction, while providing a concise definition of

the identified construct redresses concerns related to meaning (Fincham & Bradbury). The evolution of research related to relationships has given rise to the realization that romantic relationships exist beyond the confines of marriage, resulting in consensus usage of the construct of relationship satisfaction to reflect the diversity of relationships examined by modern relationship researchers (Graham et al.). For the sake of clarity *relationship satisfaction* will be defined as "one's subjective global evaluation of one's relationship" (Graham et al., p. 38).

Influences on Relationship Satisfaction

The study of relationship satisfaction is usually restricted to a subjective appraisal of the relationship by a participant or outside observer (Vaughn & Baier, 1999). These appraisals are based in social exchange and equity theories (Floyd & Wasner, 1994), and assume that an individual is satisfied if they view a particular relationship as meeting or surpassing their internal criteria for a good relationship better than any other relationship in which they are involved (Vaughn & Baier, 1999). A number of recent studies offer additional support to this conclusion (e.g. Fincham, Lambert, & Beach, 2010; Laurenceau, Kleinman, Kaczynski, & Carver, 2010; McNulty & Russell, 2010; Saavedra, Chapman, & Rogge, 2010) while exploring the interplay between relationship satisfaction and constructs such as spiritual (Fincham, Lambert, & Beach), social (Reis, et al., 2010; Ferguson, Carlson, Zivnuska, & Whitten, 2010), mental (Allen, Rhodes, Stanley, & Markman, 2010), and physical health (Berry, & Worthington, 2001; Levenson, & Gottman, 1985).

Schokker and her colleagues (2010) expand this exploration, noting that relationship satisfaction can be affected either positively or negatively. In a study designed to survey the

relationship between supportive behaviors (identified as active engagement and protective buffering) and relationship satisfaction, the authors evaluated the impact of supportive behavior on 205 diabetic individuals and their spouses. Within this study, Schokker noted that

> …active engagement refers to supportive behavior characterized by involving one's partner in discussions, asking how the other feels, and problem solving strategies. Protective buffering refers to less supportive behavior characterized by denying fears and worries, and by pretending everything is fine. (p.578)

The couples were asked to rate the degree of active engagement and/or protective buffering they experienced and complete a relationship satisfaction instrument. The partners filled out the same measure on three separate follow-up occasions. Schokker and her team found that relationship satisfaction was positively correlated to active engagement, while protective buffering was negatively correlated to relationship satisfaction. The data obtained in this study demonstrate that relationship satisfaction can be influenced by interpersonal constructs in either a positive or negative manner.

Negative Influences on Relationship Satisfaction

A negative influence can be defined as any construct which demonstrates a negative correlation with relationship satisfaction. In addition to protective buffering (Schokker et al., 2010), recent studies have found that the following constructs are negatively correlated with relationship satisfaction: physiological arousal during conversational conflict (Levenson & Gottman, 1985), indirect negative communications (McNulty & Russell, 2010), work-family conflict (Ferguson, Carlson, Zivnuska, & Whitten, 2010), Posttraumatic Stress Disorder (PTSD)

in recently deployed servicemen (Allen, Rhodes, Stanley, & Markman, 2010), stress (Randall & Bodenmann, 2009), negative dyadic coping strategies (Papp & Witt, 2010), levels of trust (Campbell, Simpson, Boldry, & Rubin, 2010), negative personality traits (Dyrenforth, Kashy, Donnellan, & Lucas, 2010), high levels of demand-withdraw behavior (Baucom, McFarland, & Christensen, 2010), prescription drug misuse (Papp, 2010), relationship threat sensitivity (Laurenceau, Kleinman, Kaczynski, & Carver, 2010), and insecure attachment (Saavedra, Chapman, & Rogge, 2010). Despite the diversity of variables examined, each of these studies found that the identified construct(s) had an adverse impact on relationship satisfaction.

For example, Allen et al. (2010) studied the relationships between recent deployment, PTSD, and marital functioning based on a data set of 434 married couples. The marriages were comprised of recently deployed active duty servicemen who were married to civilian wives; couples where both spouses served in the military were excluded from the sample. Self-reports from both spouses were used to evaluate relationship functioning. No difference in relationship functioning was found between couples who were and were not separated by deployment within the past year. A correlation was found between deployment within the past year and the husbands' increased levels of current PTSD symptoms, and the husbands' increased PTSD symptoms in turn were related to a reported decrease in levels of marital satisfaction. Allen et al. also found that current PTSD symptoms in the husbands correlated with an increased magnitude of negative communication for both partners.

The Allen et al. (2010) study typifies the variety of factors that have been scrutinized in the search to better understand relationship satisfaction and the constructs which affect it. Despite the volume of literature dedicated to understanding the constructs that negatively impact

relationship satisfaction, an examination of the negative roles that emotional schemas or emotional intelligence play in relationship satisfaction could not be found in a review of literature to date.

Positive Influences on Relationship Satisfaction

A positive influence can be defined as any construct which demonstrates a positive correlation with relationship satisfaction. In addition to active engagement (Schokker et al., 2010), recent studies have found that the following constructs are positively correlated with relationship satisfaction: prayer (Fincham, Lambert, & Beach, 2010), forgiveness (Berry & Worthington, 2001), empathy (Ferguson, Carlson, Zivnuska, & Whitten, 2010), positive dyadic coping strategies (Papp & Witt, 2010), positive personality traits (Dyrenforth, Kashy, Donnellan, & Lucas, 2010), sharing positive events (Reis et al., 2010), positive emotion (Yuan, McCarthy, Holley, & Levenson, 2010), warmth (Kamo, 1993), self-disclosure (Kamo), and fairness (Kamo,), trust (Campbell, Simpson, Boldry, & Rubin, 2010), mindfulness (Saavedra, Chapman, & Rogge, 2010), and attending to the relationship (Wilson, Charker, Lizzio, Halford, & Kimlin, 2005). While a variety of variables were examined, each of these studies found that the identified construct(s) had a positive impact on relationship satisfaction.

In their study of emotional regulation, Yuan, McCarthy, Holley, and Levenson (2010) expanded previous studies which used visual media to elicit emotions from college students in a single-subject model. The authors created a data set of 149 couples who were middle-aged or older and studied the relationship between physiological down-regulation and positive emotion by involving the couples in a conversation related to an area of marital conflict. During this

conversation, physiological data was collected and emotional behaviors were observed and later coded. Yuan et al. (2010) noted that positive emotional behavior occurred during periods when the subjects were transitioning from high arousal to low arousal (down-regulation). The resulting data suggests that positive emotion can assist with emotion regulation and that the results generalize across the domains of gender, age, and marital satisfaction.

The Yuan et al. (2010) study is representative of the variety of factors which have been scrutinized in the search to better understand relationship satisfaction and the constructs which affect it. Therefore, it is not surprising that Schutte et al. (2001) found a positive correlation between emotional intelligence and relationship satisfaction. However, despite the volume of literature dedicated to understanding constructs that positively impact relationship satisfaction, an examination of the positive roles that emotional schemas play in relationship satisfaction could not be found in a review of literature to date.

Relationship satisfaction is a leading means of assessing relationships (Hendrick, 1988). While its original conceptualization focused on marital relationships (Hendrick), relationship satisfaction has evolved to encompass a broader range of intimate relationships (Graham, Diebels, & Barnow, 2011) and multiple terms have been used as descriptors. The distillation of these factors to their essence resulted in *relationship satisfaction* being operationalized as "one's subjective global evaluation of one's relationship" (Graham et al., p. 38). Given the subjective nature of evaluation, it is not surprising that relationship satisfaction can be influenced in either a positive or negative manner.

Relationship Satisfaction and Emotional Intelligence

It has been noted that multiple factors influence relationship satisfaction (e.g. Berry & Worthington, 2001; Levenson & Gottman, 1985; Papp & Witt, 2010; Wilson et al., 2005). More specifically, research suggests that emotional intelligence may impact the level of satisfaction that an individual experiences in a relationship (Joshi & Thingujam, 2009; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), although to date this link has not been fully explored. Because it is theorized that emotional intelligence is the ability to recognize and respond appropriately to the emotions of others (Salovey & Mayer, 1990) and that relationship satisfaction is achieved when an individual views a particular relationship as meeting or surpassing their internal criteria for a good relationship (Vaughn & Baier, 1999), the two constructs appear to inhabit interrelated domains.

Viewed from a different perspective, the usefulness of emotional intelligence is dependent upon its ability to predict outcomes (Bastian, Burns, & Nettelbeck, 2005). Accordingly, researchers have noted positive correlations between higher emotional intelligence and a number of variables, including increased marital satisfaction (Schutte et al., 2001), increased quality of interpersonal relationships (Lopes, Salovey, & Straus, 2003), and positive family relationships (Mayer, et al., 1999). As understanding of emotional intelligence increased, three distinct theoretical perspectives emerged (Austin, 2009; Bar-On, 1996; Bar-On, Brown, Kirkcaldy, & Thomé, 2000; Bar-On, Tranel, Denburg, & Bechara, 2003; Mayer, Caruso & Salovey, 1999; Mayer, Caruso, Salovey, & Sitarenios, 2001; Mayer, Robert, & Barsade, 2008; Petrides & Furnham, 2001; Petrides, Pita, & Kokkinaki, 2007; Vernon, Petrides, Bratko, & Schermer, 2008). Of the three models, the ability model has the most precise definition,

strongest theoretical conceptualization, and a repeatedly validated measure (MSCEIT: Mayer, Salovey, & Caruso, 2008), thus providing the most solid theoretical platform from which to examine the relationship between emotional intelligence and relationship satisfaction.

Emotional Intelligence

The pertinence of emotional intelligence has been debated since Daniel Goleman (1995) popularized the term in his book *Emotional Intelligence*. Not surprisingly, research related to emotional intelligence grew exponentially due to the intriguing nature of the construct. Despite its popularity, the validity of emotional intelligence as a construct is dependent upon the accuracy with which it can predict outcomes (Bastian, Burns, & Nettelbeck, 2005). In 2001, Mayer, Salovey, Caruso, and Sitarenios confidently stated that emotional intelligence would become a significant predictor of various outcomes at home, school, and work. Indeed, researchers provided support for this optimistic view, noting that positive correlations were found between higher emotional intelligence and a number of variables, including increased marital satisfaction (Schutte et al., 2001), increased quality of interpersonal relationships (Lopes, Salovey, & Straus, 2003), and positive family relationships (Mayer, et al., 1999).

As the construct of emotional intelligence has evolved, it has been conceptualized in several distinct ways, each of which posits a link between emotional intelligence and relationships (Austin, 2009; Bar-On, 1996; Bar-On, Brown, Kirkcaldy, & Thomé, 2000; Bar-On, Tranel, Denburg, & Bechara, 2003; Mayer, Caruso & Salovey, 1999; Mayer, Caruso, Salovey, & Sitarenios, 2001; Mayer, Robert, & Barsade, 2008; Petrides & Furnham, 2001; Petrides, Pita, & Kokkinaki, 2007; Vernon, Petrides, Bratko, & Schermer, 2008). For example, the ability model views emotional intelligence as an intellectual ability (e.g. Mayer, Caruso & Salovey, 1999;

Mayer, Caruso, Salovey, & Sitarenios, 2001; Mayer, Roberts, & Barsade, 2008) which can be measured by a performance-based test (MSCEIT; Mayer, Caruso & Salovey, 2000), while the trait model views emotional intelligence as an emotion-related trait which exists as a subset of personality (Bar-On, 1997; Petrides, Pita, & Kokkinaki, 2007; Vernon, Petrides, Bratko, & Schermer, 2008) and can be evaluated via self-report (e.g. EQ-I; Bar-On, 1997). A third construct, the mixed model, combines the characteristics of both the trait and ability models to form a more inclusive perspective of emotional intelligence and is measured by self-report questionnaires (Zeidner**,** Matthews, Roberts, & MacCann, 2003). Despite their differences each model argues that emotional intelligence is a distinct construct, discriminant from other forms of intelligence and/or personality, and unique in its conceptualization (e.g. Bar-On, 1996; Mayer, Roberts, & Barsade, 2008; Zeidner, & Kaluda, 2008). In order to comprehend the development and contemporary relevance of the various models, it is advantageous to examine the origin and evolution of the construct of emotional intelligence.

History

The study of what is commonly called "intelligence" has evoked a variety of descriptions, depending upon an individual's frame of reference (Gardner, 2002). For example national security agencies view intelligence differently than academic institutions, and within the business world the sales department may value a different manifestation of intelligence than the engineering department. Within the social sciences, a variety of disciplines have studied intelligence from numerous discrete points of view, drawing researchers from experimental psychology, cognitive psychology, differential psychology, developmental psychology,

anthropology, and neuroscience (Gardner & Moran, 2006) to investigate the construct. Perhaps the most widely known form of intelligence is related to academic performance (often referred to as an individual's intelligence quotient or IQ) and is assessed by standardized tests which are scored by psychometricians (Gardner & Moran). The investigation and quantification of this form of intelligence was pursued in the early 20th century by luminaries such as Spearman (Lubinski, 2004), Binet, and Terman, with contributions made in the middle half of the century by Wechsler (Gardner & Moran).

It was noted early on that IQ may not subsume all forms of intelligence; indeed several theorists, including Dewey and Thorndike, suggested that a conceptualization known as "social intelligence" may occur alongside IQ and influence an individual's ability to use IQ in social situations (Joseph & Newman, 2010). Although the study of social intelligence was contemplated in the early 20th century, exploration in this area was largely dormant until the latter half of the century (Joseph & Newman). At that time, a precursor of emotional intelligence was proposed by Barbara Rothenberg (1970) in her study of children's social sensitivity. In her research, Rothenberg defined social sensitivity as "the ability to accurately perceive and comprehend the behavior, feelings, and motives of other individuals" (1970, p. 335). She asserted that social sensitivity was viewed as an important psychological marker that played a role in intra- and inter-group interactions, role acquisition, and the formulation of an individual's sense of self. Despite Rothenberg's recognition that an individual had the ability to observe and interpret the behavior(s), feelings, and motives of another individual, she did not explain what happened to the information once an individual became aware of it.

This oversight was addressed in 1983 when Howard Gardner introduced his theory of multiple intelligences (Gardner, 1983; Gardner & Moran, 2006). According to Gardner (1983) there are eight forms of intelligence that are differentiated by their association with a type of information: *interpersonal, intrapersonal, naturalistic, bodily kinesthetic, spatial, musical, logical-mathematical* and *linguistic*. He held that these intelligences interacted and could be grouped together based on the purpose for which they were used. For example, his idea that interpersonal and intrapersonal intelligences could be combined to form what he called *personal intelligences* (Gardner, 2002) resulted in a construct similar to Rothenberg's concept of social sensitivity. However, in contrast to Rothenberg's view that social sensitivity was the ability to recognize and understand the motivations, actions, and emotions of others, Gardner defined personal intelligences as an individual's ability to access their emotions, identify their emotions and use those emotions to steer their behavior. Within this model, he envisioned intrapersonal intelligence as an individual's awareness of what he or she felt and why he or she felt that way, while interpersonal intelligence related to an individual's ability to be sensitive to the mood of others and interact appropriately. By affirming that personal intelligences included the individual's response to the accessed emotions, Gardner resolved the key issue that was left unaddressed by Rothenberg's paradigm of social sensitivity; namely what an individual does with emotional information once they became aware of it. It is noteworthy that, in addition to redressing the unresolved issue within Rothenberg's model, Gardner's definitions are congruent with contemporary conceptualizations of EI. Indeed, Gardner (2002) himself recognized the similarity between his characterization of personal intelligences and Goleman's 1995 description of emotional intelligence.

In addition to being in harmony with Goleman's work, Gardner's definition of personal intelligence sounds remarkably similar to the first modern conceptualization of emotional intelligence proposed by Peter Salovey and John Mayer in 1990 (Fiori, 2009; Fisher et al., 2010). In their original work, Salovey and Mayer defined emotional intelligence as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (p. 189). When Salovey and Mayer's definition of emotional intelligence is compared to Gardner's definition of personal intelligences, commonalities emerge, including the awareness and identification of emotions, as well as the use of this emotional information to direct behavior.

While Salovey and Mayer (1990) are credited with introducing the concept of emotional intelligence in general and the ability model in particular (Fiori, 2009; Fisher et al., 2010), it is not the only lens through which emotional intelligence is viewed. For example, the trait model of emotional intelligence describes emotional intelligence as an emotion-related trait which exists as a subset of personality (Petrides, Pita, & Kokkinaki, 2007; Vernon, Petrides, Bratko, & Schermer, 2008), hypothesizing that emotional intelligence is a trait which exists independent of intellectual ability (Mayer, Salovey, & Caruso, 2008). In a more recent interpretation of emotional intelligence that combines both the ability and trait perspectives, Bar-On, Tranel, Denburg, and Bechara (2003) defined emotional intelligence as "an array of emotional and social abilities, competencies, and skills that enable individuals to cope with daily demands and be more effective in their personal and social life" (p. 1790). This definition has been distilled from the examination of more diverse perspectives and re-constituted as a broad-ranging definition capable of encompassing the primary emotional intelligence models. Indeed,

contemporary research has identified three models of emotional intelligence: ability, trait, and mixed (e.g. Austin, 2009; Ferguson & Austin, 2010; Joseph, & Newman, 2010).

Models of Emotional Intelligence

As previously noted, emotional intelligence has been conceptualized in a variety of ways, each of which hypothesizes a link between emotional intelligence and relationships (Austin, 2009; Bar-On, 1996; Bar-On, Brown, Kirkcaldy, & Thomé, 2000; Bar-On, et al., 2003; Mayer, Caruso & Salovey, 1999; Mayer, Caruso, Salovey, & Sitarenios, 2001; Mayer, Roberts, & Barsade, 2008; Petrides & Furnham, 2001; Petrides, Pita, & Kokkinaki, 2007; Vernon, Petrides, Bratko, & Schermer, 2008; Zeidner, & Kaluda, 2008). The ability model of emotional intelligence was formally proposed by Salovey and Mayer (1990) when they suggested that emotional intelligence was the ability to evaluate the emotions of self and others, and to guide one's thoughts and actions based upon this information. Within this model, they envisioned emotional intelligence as a unique and separate form of intelligence, similar to but different than cognitive intelligence. As work in this exciting new field progressed, a diversity of opinion began to emerge which challenged the original conceptualization of emotional intelligence as an ability, viewing it instead as a trait, or subset of personality (Bar-On, 1997; Golman, 1995). More recently, some efforts have been made to unify the two perspectives, resulting in a mixed model of emotional intelligence which embraces the hypothesis that ability and trait emotional intelligence are separate aspects of the same construct (Austin, 2009; Bar-On, Brown, Kirkcaldy, & Thomé, 2000; Cherniss, Extein, Goleman, & Weissberg, 2006; Ferguson & Austin, 2010; Martins, Ramalho, & Morin, 2010).

Ability model of emotional intelligence.

From the perspective of advocates of the ability model, emotional intelligence is viewed as a subset of intelligence which can be assessed via instruments that resemble traditional intelligence tests (Austin, 2009; Mayer, Caruso & Salovey, 1999; Mayer, Caruso, Salovey, & Sitarenios, 2001; Mayer, Robert, & Barsade, 2008; Zeidner, & Kaluda, 2008). In 1999, Mayer, Caruso and Salovey proposed the Multi-Factor Emotional Intelligence Scale (MEIS) as a new instrument specifically designed to measure emotional intelligence. The theoretical assumption of the MEIS is that emotional intelligence consists of four branches: a) perceiving emotion, b) facilitating thought with emotion, c) understanding emotion, and d) managing emotion. These branches also form a hierarchy, beginning with perceiving emotion at the base and culminating with managing emotion at the pinnacle. By evaluating a participant's responses to questions related to each of these four branches, the authors maintained that an individual's emotional intelligence could be gauged.

However some questions were raised regarding the ability model's hypothesis that emotional intelligence is only a conscious process. As Fiori (2009) points out, "some individuals may be good at mindfully thinking and describing how they or a generic person should behave in hypothetical situations but not as good at actually performing the behavior" (p. 24). The reverse is also true. According to Suna, Merrill, and Peterson (2001), some individuals may not excel at thinking and describing how they execute a task; they may only excel at executing it. The existing disconnect between cognition and praxis in some instances calls into question the underlying assumption of the ability model; namely, that it is exclusively a subset of intelligence (e.g. Izard, 2001).

Despite these criticisms, the creators of the MEIS viewed the initial study as promising (Mayer, Caruso & Salovey, 1999), even though additional issues were raised regarding its psychometric properties (Davies, Stankov, & Roberts, 1998; Roberts, Zeidner, & Matthews, 2001). The challenges that arose centered on concerns that the scales were unreliable and that the MEIS did not contain objective answers to the test questions (Davies et al.; Mayer et al.; Roberts et al.). The designers of the assessment recognized the heuristic validity of the objections raised by researchers who scrutinized the MEIS, and sought to address these issues by developing the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT: Mayer, Caruso & Salovey, 2000).

The evolution of this new instrument has resulted in two versions to date; the MSCEIT Research Version 1.1 (MSCEIT RV1.1) and MSCEIT Version 2.0 (MSCEIT V 2.0) (Mayer, Salovey, Caruso, & Sitarenios, 2003). Both the MSCEIT RV1.1 and the MSCEIT V 2.0 were developed to improve the psychometric properties of the MEIS and account for the criticisms that were leveled at it (Fiori, 2009; Mayer, Caruso, Salovey, & Sitarenios, 2001). Based on adaptations of the same four branch model of emotional intelligence both versions were found to be reliable, with the reliability showing slight improvement with each successive test revision (Mayer et al.). The skepticism regarding the lack of objective questions was addressed by additional studies which yielded an intercorrelation of the convergence between expert and general consensus at $r = .98$ (Mayer et al.), but some challenges related to the psychometric properties continue to be raised (Zeidner, Matthews, & Roberts, 2001). Despite the objections raised regarding the tools used to assess the ability model (Davies, Stankov, & Roberts, 1998; Roberts, Zeidner, & Matthews, 2001; Zeidner, Matthews, & Roberts, 2001), a consensus of

researchers within the field finds value in the ability model and continues to explore its boundaries (Austin, 2009; Fiori, 2009; Fisher et al., 2010; Joseph & Newman, 2010; Mayer, Salovey, & Caruso, 2008).

Trait model of emotional intelligence.

The trait model of emotional intelligence can be conceptualized as an emotion-related trait which exists as a subset of personality (Petrides, Pita, & Kokkinaki, 2007; Vernon, Petrides, Bratko, & Schermer, 2008). This view places the trait model outside the sphere of intellectual ability and in direct contrast to the ability model (Austin, 2009; Mayer, Salovey, & Caruso, 2008; Petrides & Furnham, 2003). The debate regarding the trait model has been vigorous, with opinions ranging from embracing it as a valid construct (e.g. Dwada & Hart, 2000; Petrides, 2010) to questioning its current formulation (e.g. Palmer, Manocha, Gignac, & Strough, 2003). Indeed, some researchers doubt the relevance of the trait conceptualization altogether, arguing that there are currently only two models of emotional intelligence; ability and mixed (e.g. Fiori, 2009; Grubb & McDaniel, 2007). As the debate progresses empirical studies increase, supporting the notion that the trait model of emotional intelligence represents a unique construct of emotional intelligence, clearly differentiated from the ability model (Austin, 2009; Ferguson & Austin, 2010; Martins, Ramalho, & Morin, 2010; Vernon, Petrides, Bratko, & Schermer, 2008). Despite the disparity of opinion, the trait paradigm and its related assessment tools continue to be used in contemporary research (e.g. Gardner & Qualter, 2010; Petrides, 2010).

Because the trait model envisions emotional intelligence as a discrete function peripherally related to personality, it is measured by self-report (e.g. the Emotional Quotient

Inventory (EQ-i); Bar-On, 1996) rather than the more objective instruments used to measure traditional forms of intelligence (Austin, 2009). One of the criticisms of using self-reports to measure emotional intelligence has been leveled by Mayer et al. (2001), who note that assessing emotional intelligence via self-report is no more valid than assessing cognitive intelligence via self-report because in both cases the subjects tend to have a limited perception of their own functioning. While this is a valid criticism when emotional intelligence is viewed as only a discrete subset of intelligence, it is less compelling when leveled at the trait model due to its conceptualization of emotional intelligence as a trait which exists as a subset of personality. Simply stated, intelligence can be measured by performance-based tests, while traits can only be measured by self-report or observation (Austin; Goldberg, 1990). It is interesting to note that several of the researchers who object to using self-report measures of emotional intelligence were instrumental in the development of the Trait Meta-Mood Scale (TMMS; Salovey, Mayer, Goldman, Turvey, & Palfai, 1995), a self-report instrument which has been used as a measure of trait emotional intelligence in recent research (Malterer, Glass, & Newman, 2008). Despite this intriguing juxtaposition, the fact remains that participant self-report is regarded as less valid than other measures, including observer-reports (MacCann, Wang, Matthews, & Roberts, 2010).

Mixed model of emotional intelligence.

Originally, the terms *trait* and *mixed* were used interchangeably when referring to emotional intelligence (Bar-On, 1997; Grubb & McDaniel, 2007). Mayer, Salovey, and Caruso (2000) used the term *mixed model* of emotional intelligence to refer to emotional intelligence models that combined related and unrelated characteristics in their definition of emotional

intelligence. However, some researchers have suggested that the trait model of emotional intelligence represents a unique construct that is distinct from the conceptualization of emotional intelligence as an ability (Austin, 2009; Ferguson & Austin, 2010; Martins, Ramalho, & Morin, 2010; Vernon, Petrides, Bratko, & Schermer, 2008). This view represents a challenge to the perspective that mixed models are a combination of ability and an esoteric constellation of labile factors, traits, skills, and competencies (Mayer et al.; Mayer, Salovey, & Caruso, 2008) by implying that the trait model exists independent of the ability model. Indeed, the idea that ability and trait emotional intelligence are separate constructs (Austin, 2009; Ferguson & Austin, 2010; Martins, Ramalho, & Morin, 2010; Petrides, Fredrickson, & Furnham, 2004) is central to the mixed model. Petrides and Furnham (2003) bring this thought full circle, making the case that, not only do the trait and ability models of emotional intelligence represent discreet constructs, but that these constructs have overlapping theoretical domains. This paradigm shift has precipitated a new, more traditional meaning for the mixed model, no longer referring to the mixing of related and unrelated characteristics, but rather positing that mixing occurs when both the ability and trait models are connected via overlapping domains (Petrides & Furnham 2003).

From the perspective of those who embrace the revised version of the mixed model, emotional intelligence can be conceptualized as an amalgam of intelligence (ability) and diverse amounts of personality and emotion (trait) that allows the individual to successfully cope with their social environment (Bar-On, Brown, Kirkcaldy, & Thomé, 2000; Petrides & Furnham, 2001). In other words, both the trait and ability models represent unique, valid aspects of emotional intelligence which, when combined, may offer a more robust description of emotional intelligence than either provides alone. Unfortunately, to date no cohesive theory exists to unify

both the ability and trait models into a comprehensive mixed model of emotional intelligence, nor have instruments been developed to test such an integrated model.

Emotional Intelligence and Emotional Schemas

The confluence of emotional intelligence and emotional schemas was noted by Greenberg and Safran in 1989 when they recognized that both cognitive and emotional processes play a role in influencing an individual's behavior. Although the term *emotional intelligence* did not yet exist, the predecessors of emotional intelligence had been examined by researchers and the conceptualization of emotional intelligence as subset of intelligence (a cognitive process) was being formulated (Salovey & Mayer, 1990). In Greenberg and Safran's study, the authors sought to unify the various compartmentalized theoretical models of emotion into an integrated whole which conceptualized "emotion as a complex synthesis of expressive motor, schematic, and conceptual information that provides organisms with information about their responses to situations that helps them orient adaptively in the environment" (p. 19). It was in this study that schemas were examined within the confines of an emotional model. While Greenberg and Safran's definition of emotion did not specifically reference intelligence, the phrase "provides organisms with information about their responses to situations that helps them orient adaptively in the environment" (p.19) alludes in part to information processing, which is a function of intelligence (Jensen, 1993).

Emotional Schemas

It has been noted that the therapeutic exploration of emotion is a primary component of responsible therapy, irrespective of the therapist's theoretical perspective (Greenberg & Pascual-Leone, 2006). Greenberg and Paivio (1997), along with Leahy (2002) suggest that emotion is a precursor to emotional schemas, and emotional schemas have been identified as the "basic unit of the self" (Smith & Greenberg, 2007, p. 175). Moreover, it has been posited that emotional schemas, defined as the "plans, concepts, and strategies employed in 'response to' an emotion" (Leahy, p. 179), play a role in understanding and expressing emotion. In turn, understanding and expressing emotion have been linked to positive self-reflection, increased self-understanding and better physical health (Pennebaker, Mayne, & Francis, 1997).

History

Researchers frequently point to the work of Aaron T. Beck when discussing schemas and their role in the emotional development of the individual (e.g. Ball, & Young, 2000; Segal, 1988; Young & Lindemann, 1992). When referencing depression, Kovacs and Beck (1978) found that distorted thinking is undergirded by maladaptive cognitive schemata. These schemata tend to be acquired early in an individual's development and embrace two types of maladaptive cognitions: two dimensional "either-or" thoughts and/or rigid, unrealistic expectations of themselves. In their study, the authors defined schemata as "long-term identifiable psychological patterns that influence attitude and behavioral responses" (p. 525). Segal further refined this definition by proposing that schemas consist "of organized elements of past reactions and experience that form

a relatively cohesive and persistent body of knowledge capable of guiding subsequent perception and appraisals" (p. 147).

While Kovacs and Beck were exploring maladaptive cognitive schemas, Kelley and Michela (1980) were investigating what they called *causal schemas,* which are descriptions "of the common person's conception of how two or more causes combine to produce a certain effect" (p, 471). Cunningham and Kelley (1975) proposed that the type of schema engaged would be dependent upon the cause and effect that triggered it. Thus a person's belief regarding the manner in which multiple causes coalesce to create effects is based upon previous experience and triggers an interpretation of the experience. This led to questions about the boundaries of causal schemas, creating uncertainty about when the new interpretation ceased to be based on the causal schema and altered it instead (Kelley & Michela). Nevertheless, the work done by Kelley and his colleagues provided added impetus to a fuller understanding and operationalizing of the schematic construct.

Concurrently, Safran and Greenberg (1982) began to examine the relationship between emotion and cognition. As their work progressed, they observed a distinction between what they described as *hot* (affect heavy) and *cold* (affect free) cognitions. They hypothesized that hot cognitions are the main reason that cause individuals to seek therapeutic intervention and identified four potentially therapeutic processes: a) educating individuals about intuitive appraisals, b) teaching them to discern appraisals from reappraisals, c) encouraging the reconstruction of previous experiences, and d) focusing on intuitive appraisals. In this context, appraisals are defined as having both physiological and phenomenological aspects, but no upper level cognition. On the other hand, reappraisals are viewed as "the cognition process through

which the individual construes the initial appraisal" (p. 84). Because reappraisals involve a cognitive evaluation of emotional experience, the work of Greenberg and Safran links emotions and cognitions during the reappraisal process, providing an environment conducive to the formation of emotional schemas.

In 1989, Greenberg and Safran extended their examination of emotion, noting "a growing realization that behavior can be initiated and influenced by emotional as well as cognitive processes" (p. 19). Developed in the 1980s, information processing models conceptualized emotion as comprising three tiers: linguistic/conceptual, semantic/schematic, and physiological/expressive motor. Greenberg and Safran went even further, suggesting that emotions are a method of information processing by which an individual expresses their interpretation of events. Leahy (2002) moved the discussion forward, noting that in this context "emotional schemas entail an organizing structure by which an emotion contains the 'meaning' or 'cognitions'" (p.178).

Early Maladaptive Schemas.

Although the recognition of the role that emotion played within the therapeutic setting was important, many aspects of emotion had yet to be fully examined or defined. Accordingly, theorists such as Aaron Beck and Jeffrey Young sought to fill this void, defining "maladaptive or dysfunctional schemas as enduring, pervasive, unconditional, negative beliefs about oneself, others, and the environment that are learned early in childhood and perpetuated and elaborated in adulthood" (Ball & Young, 2000, p. 271). Young (1990) postulated that early maladaptive schemas are formed in an individual's childhood and are based on their experiences with their

primary caregivers. In 1992, Young and Lindemann further refined Young's earlier conceptualization, proposing that early maladaptive schemas are "extremely broad and pervasive themes regarding oneself and one's relationships with others, developed during child hood and elaborated throughout one's life" (p. 12).

Early maladaptive schemas are typically activated by events that challenge the assumptions of the schemata and tend to become increasingly refractory to change over time (Young, 1990; Young & Lindemann). Once established, early maladaptive schemas screen an individual's experience for data that reinforces the early maladaptive schemas throughout the individual's lifetime (Schmidt, Joiner, Young, & Telch, 1995). This screening is accomplished by magnifying data that reinforces early maladaptive schemas (Anderson & Ross, 1984) while minimizing information that challenges the existing schema (Markus, 1977). In a practical sense, this means that any information that is inconsistent with the schema is not processed in the same manner or intensity as information that coincides with the early maladaptive schemas.

Insecure attachment as a maladaptive schema.

Although identified as a conceptualization of early maladaptive schemas, Young and Lindemann's (1992) definition could also be understood as a basic characterization of attachment styles. Indeed, attachment has been described "as a global and stable orientation toward the self, others, and relationships" (Vilchinsky, Findler, & Werner, 2010, p. 298). Collins and Freeny (2000) noted that an individual's attachment system is activated by stressful events and operates as a filter that allows an individual to gauge their interactions with other individuals. In a later study, Collins and Freeny (2004) postulated that individuals who have insecure attachment styles

would be less likely to view support from a significant other in a favorable manner and noted that such a perspective is suspected to have implications for relationship functioning and by extension, relationship satisfaction (Schokker et al., 2010; Vaughn & Baier, 1999).

Irrational thoughts and maladaptive schemas.

Despite the data to suggest a link between maladaptive schemas and irrational thoughts (Sava, 2009), Young and Lindemann (1992) maintain that there are meaningful differences between early maladaptive schemas and the assumptions that underlie automatic thoughts. In their work, they identified six distinct differences: a) schemas are more pervasive, b) each early maladaptive schema has a specific therapeutic strategy designed for it and they are grouped based on developmental commonalities, c) schemas evoke increased affect because they touch core human needs, d) schema compensation and schema avoidance are utilized to deflect the pain caused by early maladaptive schemas and efforts to address them, e) schemas are based on interpersonal experience and are most effectively treated within relationships, and f) early maladaptive schemas are assumed by the individual to be a priori truths and are refractory to change. Because of the unique and entrenched nature of early maladaptive schemas, specific interventions, such as Schema-Focused Cognitive Therapy and Dual-Focused Schema Therapy have been developed to address the needs of individuals who suffer with early maladaptive schemas (Ball & Young, 2000; Young, 2005; Young & Lindeman, 1992).

As is often the case in psychology, psychopathology drives the research; it draws the attention of researchers to a specific maladaptive feature that requires investigation in order to be better understood and treated (e.g. Ball & Young, 2000; Leahy, 2007; Young & Lindemann,

1992). Thus the progression of schema-related research to date has moved from the theoretical supposition of their existence, thru the identification of early maladaptive schemas, and is currently focusing on the investigation of emotional schemas.

Conceptualization of Emotional Schemas

The field of affective neuroscience conceptualizes emotion and cognition as independent but symbiotic functions arbitrated by individual, collaborating brain systems (Greenberg, 2008). This observation is consistent with the earlier work of Greenberg and Paivio (1997), who postulated that emotional schemas form the structure wherein an emotion encompasses meaning and/or cognitions. This perspective argues that emotions contain their own truth and are catalysts of thought in their own right, not enveloped by rational cognitions; in other words, emotions fuel cognitions.

In his cognitive model of emotions, Robert Leahy noted that "emotional schemas refer to plans, concepts, and strategies employed in 'response to' an emotion" (2002, p. 179). Although the wording selected by the researchers differs, the definition of emotional schemas postulated by Leahy is compatible with Greenberg and Paivio's 1997 definition; both paradigms suggest that emotion is a precursor to emotional schemas. By combining both perspectives, emotional schemas can be conceptualized as the historically-derived cognitive responses automatically triggered in response to experienced emotions. In this sense, the delineation between early maladaptive schemas and emotional schemas appears clear; early maladaptive schemas can be seen as internally constructed inaccurate beliefs about the self and others through which interactions are interpreted, while emotional schemas can be viewed as automatically activated

cognitive strategies activated in response to emotion triggered by the self's interpretation of an event.

Emotional Schema Therapy

Increasing recognition of the function of emotion in psychopathology has led to heightened attendance to the link between emotions and positive therapeutic outcomes (Magnavita, 2006). Emotional schemas presume that individuals interpret and respond to emotion based upon their intrapersonal beliefs about emotion and strategies for responding to a specific emotion (Leahy, 2008). More specifically, Mayer and Salovey (1997) suggest that the ability to understand and accept contradictory emotions may be impaired in individuals who have difficulty regulating their emotions. Further research into emotional schemas led to the development of emotional schema therapy, which is based on the premise that negative emotions are not the problem; instead, it is the meaning that an individual attaches to the negative emotion and the ensuing reaction that can be problematic (Leahy, 2007). Accordingly, emotional schema therapy emphasizes normalization of emotion as a vital factor in the promotion of self-understanding and the development of higher values (Leahy, 2002).

Emotional Schemas and Relationship Satisfaction

In general, schemas are responsible for structuring information, providing meaning, and guiding behavior (Thimm, 2010), and can be differentiated by their content (Conover & Feldman, 1984). For example, cognitive schemas focus on cognitions, relational schemas focus on relationships, and emotional schemas focus on emotions. Although much research has been

directed toward understanding an individual's interpersonal and intrapersonal schemas, some modern scholars have also begun to re-examine interpersonal relationships (Baldwin, 1992; Laurenceau, Kleinman, Kaczynski, & Carver, 2010). Baldwin noted that this interest in understanding the impact of influential relationships on an individual's self-schema harkens back to psychology's infancy, when William James "recognized the important interdependency between self-conception and interpersonal experience…" (p. 464).

Recent advances in attachment research support this elemental link between self-schemas and relationships (Collins, & Feeney, 2004; Mikulincer, & Shaver, 2001; Mikulincer, Shaver, Sapir-Lavid, & Avihou-Kanza, 2009). In their examination of the relationship between attachment style and perceived social support, Collins and Feeney surmised that the interpretation of potentially supportive interactions is influenced in part by the internal working model of the perceiver. This hypothesis was borne out when the authors found that secure subjects who experienced low-support messages from their partner interpreted the messages more positively, evaluated previous interaction with their significant other as being more supportive, and performed markedly better at their task than their insecurely attached peers.

Research also demonstrates that schemas affect the perceived quality of relationships (Collins, & Feeney, 2004), and that the perceived quality of relationships has been shown to influence relationship satisfaction (Laursen, DeLay, & Adams, 2010). While researchers have linked schemas in general to the level of satisfaction individuals experience in their romantic relationships (Chatav & Whisman, 2008; Marshall et al., 2011), no direct link has been established between emotional schemas and relationship satisfaction.

Current Study

Researchers have demonstrated that relationship satisfaction is influenced by multiple factors (e.g. Baucom, McFarland, & Christensen, 2010; McNulty & Russell, 2010; Schokker et al., 2010; Yuan, McCarthy, Holley, & Levenson, 2010), including emotional intelligence (Joshi & Thingujam, 2009), although to date only the ability model of emotional intelligence has been directly linked to relationship satisfaction (Joshi & Thingujam; Schutte et al., 2001). In a similar way, researchers have linked schemas to the level of satisfaction individuals experience in their romantic relationships (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), although no direct link has been established between emotional schemas and relationship satisfaction. Additionally, while research has identified a link between emotional intelligence and schemas (Greenberg & Safran, 1989), no studies to date have examined the mediating effects of emotional schemas on the consociation of relationship satisfaction and the ability model of emotional intelligence. The goal of this study is to examine the relationship between emotional schemas, emotional intelligence and relationship satisfaction.

Specifically, this study sought to answer the following research questions:

RQ1. Does emotional intelligence correlate with relationship satisfaction?

RQ2. Does emotional intelligence correlate with emotional schemas?

RQ3. Do emotional schemas correlate with relationship satisfaction after controlling for emotional intelligence?

RQ4. To what extent, if at all, do emotional schemas mediate the relationship between emotional intelligence and relationship satisfaction?

Chapter Summary

The interrelatedness of three domains of human personality, emotional schemas, emotional intelligence, and relationship satisfaction, is the subject of this study. This chapter reviews the history, conceptualization, and theoretical underpinnings of each domain, and discusses how the relationship between emotional schemas, emotional intelligence, and relationship satisfaction is conceptualized in the current study.

CHAPTER THREE: METHODS

Overview

This chapter outlines the methods employed to investigate the relationship between emotional intelligence, emotional schemas, and relationship satisfaction. The study's design, rationale, participants, measures, research questions, statistical analysis, procedures, and ethical issues are discussed in this chapter.

Study Design

Since the purpose of this study is to investigate the relationship between emotional schemas, emotional intelligence and relationship satisfaction, quantitative methods were employed. A cross-sectional research design was utilized to gather the data necessary to evaluate the correlation between the variables. More specifically, Baron and Kenny's (1986) four step mediation model was used to explore the hypothesis that emotional schemas mediate the relationship between emotional intelligence and relationship satisfaction. Multiple regression was used to evaluate the hypothesized mediation, utilizing the following steps:

Step 1. Requires that the initial predictor variable (emotional intelligence) be correlated with the outcome variable (relationship satisfaction), establishing the existence of an effect which can be mediated;

Step 2. Requires that the initial predictor variable (emotional intelligence) be correlated with the mediating predictor variable (emotional schemas), thus treating the mediating predictor variable as an outcome variable;

Step 3. Requires that the regression equation utilizes relationship satisfaction as the outcome variable while emotional intelligence and emotional schemas will be the predictor variables. The initial predictor variable (emotional intelligence) must be controlled before the effect of the mediating predictor variable (emotional schemas) on the outcome variable (relationship satisfaction) can be established;

Step 4. States that if the effect of the initial predictor variable (emotional intelligence) on the outcome variable (relationship satisfaction) is zero, then emotional schemas completely mediate the relationship between emotional intelligence and relationship satisfaction. If the first three steps are met and the final step is not met, then partial mediation will be assumed.

Rationale of Study

Researchers have demonstrated that relationship satisfaction is influenced by multiple factors (e.g. Baucom, McFarland, & Christensen, 2010; McNulty & Russell, 2010; Schokker et al., 2010; Yuan, McCarthy, Holley, & Levenson, 2010), including emotional intelligence (Joshi & Thingujam, 2009). Although three distinct models (trait, ability, and mixed) of EI have been proposed (e.g. Bar-On, 1996; Mayer, Caruso & Salovey, 1999; Petrides & Furnham, 2003), only the ability model has been directly linked to relationship satisfaction (Schutte et al., 2001). In a similar way, researchers have also linked schemas in general to the level of satisfaction individuals experience in their romantic relationships (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), although no direct link has been established between emotional schemas and relationship satisfaction. Additionally, while

research has identified a link between emotional intelligence and schemas in general (Greenberg & Safran, 1989), no studies to date have examined the mediating effects of emotional schemas on the consociation of relationship satisfaction and the ability model of emotional intelligence. The goal of this study was to examine how these variables are related using Baron and Kenny's (1986) methodology for assessing mediating relationships.

Participants

An accidental sample of married individuals was recruited from among the participants who respond to the assessments posted on Mechanical Turk, an anonymous online data collection service offered by Amazon. Each selected participant was paid one dollar (United States currency) for the completion of the prescribed assessments. Recent studies (Buhrmester et al; Gosling et al.) indicate that the data gathered via Mechanical Turk is as valid as that gathered by traditional pencil and paper assessments. Although additional demographic information was collected, the primary inclusion criterion was current involvement in a dyadic heterosexual marital relationship. While 220 individuals attempted the assessments, only 135 participants met the inclusion criteria and answered every question on each of the three assessments; these individuals comprised the sample population (N = 135).

Measures

Participants in the study were required to complete a demographic questionnaire (see Appendix A). The questionnaire was designed to gather descriptive information including age, gender, ethnicity, marital status, number of children, religious orientation, and the importance of

faith in the participants' lives. While marital status was the only inclusion criteria utilized in the current study, additional demographic information was gathered for possible use in future research. In addition to the questionnaire, the following instruments were administered: the Leahy Emotional Schema Scale (LESS; Leahy, 2002) was used to assess emotional schemas; the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT; Mayer, Salovey, & Caruso, 2002) was used to assess emotional intelligence; and the Relationship Assessment Scale (RAS; Hendrick, 1988) was used to assess relationship satisfaction.

Emotional Schemas: The Leahy Emotional Schema Scale

Emotional schemas were assessed via the Leahy Emotional Schema Scale (LESS; Leahy, 2002). Developed by Robert Leahy, the leading researcher examining emotional schemas, the LESS is the only instrument specifically designed to assay the construct of emotional schemas to date (Yavuz, Turkcapar, Demirel, & Karadere, 2011). The LESS utilizes a self-report format comprised of 50-questions (see Appendix B) in which participants use a Likert scale ranging from 1 (very untrue of me) to 6 (very true of me) to rate how they deal with emotions. Participant responses are designed to evaluate the 14 emotional schema dimensions proposed by Leahy (e.g., simplistic view of emotion). Table 3.1 lists each of the dimensions and their attendant descriptions. The number of items used to evaluate the dimensions varies: *acceptance of feelings* utilizes seven items; *rumination* utilizes five items; *comprehensibility, guilt, simplistic view of emotion,* and *consensus* utilize four items; *validation, higher values, control,* and *rational* utilize three items; and *numbness, duration, expression,* and *blame* utilize 2 items.

Although to date there are no reliability studies based on the original version of the LESS, researchers found that the Turkish version of the LESS had a Cronbach's alpha coefficient of r = 0.86 and split-half reliability coefficient of r = 0.70, supporting the conclusion that the Turkish version of the LESS was reliable (Yavuz et al., 2011). It is important to note that the Turkish version was based on a conceptually consistent translation of the original version of the LESS and was not merely a paraphrase (Yavuz et al.). Although Leahy did not report on the reliability of the LESS, he did report that convergent validity existed between the LESS, the Beck Depression Inventory (BDI; Beck & Steer, 1987), and the Beck Anxiety Inventory (BAI; Beck & Steer, 1990).

Emotional Intelligence: The Mayer-Salovey-Caruso Emotional Intelligence Test

Emotional intelligence was assessed via the Mayer-Salovey-Caruso Emotional Intelligence Test **(**MSCEIT; Mayer et al., 2002). The MSCEIT is an ability-based measure of emotional intelligence derived from the Multifactor Emotional Intelligence Scale (MEIS: Mayer, Caruso, & Salovey, 1999) and has undergone several revisions, with the most current version being the MSCEIT V2.0 (Mayer et al.). Although other assessments of emotional intelligence have been developed (e.g., EQ-I: Bar-On, 1997), they are based upon subjective, rather than performance-based, assessments of emotional intelligence (Mayer et al., 2002). This discrepancy can be explained by the different conceptualizations of emotional intelligence; the MSCEIT is grounded in the ability model, while the EQ-I is grounded in the trait model. Accordingly, the Four-Branch Model (Mayer et al., 1999) is central to the conceptualization of

emotional intelligence as an ability and forms the framework upon which the MSCEIT is built. As a performance-based assessment, the MSCEIT reflects an individual's ability to resolve emotional problems, and is comparatively resistant to confounds such as emotional state and self-concept. It utilizes a Likert scale to evaluate each of the 141 items that are spread across eight tasks. The MSCEIT is copyrighted by Multi-Health Sytems Inc. (MHS) and cannot be reprinted (see Appendix C).

The MSCEIT provides a variety of scoring options; one total emotional intelligence score, two area scores, four branch scores, and eight task scores (Mayer et al., 2002). Table 3.2 lists each of the scores and their descriptions. Emotional intelligence can be grossly measured by one overarching, or total score that is based upon an individual's performance level in all categories. This score reflects the sum of the two area scores, Experiential Emotional Intelligence and Strategic Emotional Intelligence. In turn each of the area scores is the sum of two branch scores; Experiential Emotional Intelligence is comprised of the Perceiving Emotions and Facilitating Thoughts branches, while Strategic Emotional Intelligence is comprised of the Understanding Emotions and Managing Emotions branches. Similarly, each of the branch scores is the sum of two task scores; Perceiving Emotions is comprised of the Face Task and Picture Task, Facilitating Thoughts is comprised of the Sensation Task and Facilitating Task, Understanding Emotions is comprised of the Blends Task and Change Task, and Managing Emotions is comprised of the Emotion Management Task and Emotion Relations Task (Mayer et al.). The MSCEIT is considered a reliable test at the Total, Area, and Branch levels but caution is encouraged at the task level, where *r* was inconsistent, with values ranging from 0.56

Table 3.1
Definitions of the Emotional Schema Scale (LESS) Scores (Makino, 2010).

Name of Scores	Definition
Validation	The belief that there is a receptive audience for his/her emotions.
Comprehensibility	Belief that one's own feelings are comprehensible and make sense to him/her. The other extreme would be the catastrophic interpretation of one's feeling.
Guilt	The belief that one should not have certain emotion, accompanied with shame, guilt, and embarrassment about an emotion.
Simplistic view of emotion	The perception that one's and others' emotions may be contradictory. One's ability to accept the contradiction.
Higher values	The tendency to use emotions to clarify one's underlying needs and personal values.
Uncontrollability	Perception that intense negative emotions are out of one's control.
Numbness	Tendency to isolate oneself from one's intense emotions.
Demands for rationality	Tendency to overemphasis on rationality and logic. Anti-emotionality.
Duration	Belief that a strong feeling will last a long period of time.
Consensus	Recognition that many others have similar feelings to those that one experiences.
Acceptance of feelings	Tendency to accept own feelings and expend much energy to inhibit feelings.
Rumination	Tendency to ruminate and focus on one feeling and one thought. Lack cognitive flexibility.
Expression	Willingness to experience and express feelings openly
Blame	Belief that others cause one's negative feelings.

to 0.88 (Mayer et al., 2002). Bracket and Mayer (2001) found that the test-retest reliability for the Total EI scale was $r = 0.86$ with an N of 62, while the reliabilities of the branch scales ranged from 0.74to 0.89 (as cited in Mayer et al.). Despite the relatively recent introduction of the MSCEIT V2.0, a number of studies have supported the predictive, incremental, discriminant, and convergent validity of the instrument (see Bracket, & Salovey, 2006 for a review).

Relationship Satisfaction: The Relationship Assessment Scale

Relationship satisfaction was assessed via the Relationship Assessment Scale (RAS; Hendrick, 1988). The RAS was selected due to its ability to specifically measure the construct and its brevity, which allows the RAS to be utilized as part of a battery of tests (Vaughn and Baier, 1999), such as was used in this study. Participants utilize a five-point Likert scale (A = 1 to E = 5) to rate seven items in a self-report format (See Appendix D). The higher the score, the more satisfied the participant is in their relationship. While early measures of relationship satisfaction focused on married couples, the RAS was designed to assess satisfaction within any dyadic romantic relationship.

The reliability of the RAS is supported by researchers such as Vaughn and Baier (1999) who reported a Cronbach's alpha of 0.91 for RAS total scores, and Graham, Diebels, and Barnow (2011), who calculated an average Cronbach's alpha of 0.872 in a recent meta-analysis. Vaughn and Baier also found evidence for convergent validity (0.84) between the total scores of the RAS and the Dyadic Adjustment Scale (DAS; Spanier, 1976), which supported Hendrick's (1988) earlier finding of a correlation of 0.80 between the total scores of the RAS and DAS.

Research Questions and Hypotheses

As noted in the opening chapter, this study sought to answer the following research questions, which were examined though the exploration of their related hypotheses:

RQ1. Does emotional intelligence correlate with relationship satisfaction?

H1. Emotional intelligence will correlate with relationship satisfaction.

Table 3.2
Definitions of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) Scores (Mayer et al., 2002, pp. 17-20).

Name of Scores	Definition
Total EI	A general score which reflects the respondent's overall EI
Experiential Emotional Intelligence (Area Score)	A score which reflects the ability of the respondent comprehend emotional information, connect it to other sensations such as sound and touch, and enable cognition.
Perceiving Emotions (Branch Score)	A score which reflects the ability of the respondent to identify emotion in self and others.
Face Task	A score which reflects the ability of the respondent to identify the emotions of another individual based upon the individual's facial expression.
Picture Task	A score which reflects the ability of the respondent to comprehend the emotion(s) that are expressed in music, art and their surrounding environment.
Facilitating Thoughts (Branch Score)	A score which reflects the ability of the respondent to utilize emotion to enable cognition (facilitate thought).
Sensation Task	A score which reflects the ability of the respondent relate an emotion with sensations such as sound, temperature, or touch.
Facilitating Task	A score which reflects the ability of the respondent to comprehend how different moods affect cognition.
Strategic Emotional Intelligence (Area Score)	A score which reflects the ability of the respondent to comprehend emotional meaning and utilize it to self-regulate and strategize.
Understanding Emotions (Branch Score)	A score which reflects the ability of the respondent to comprehend the intricacies of emotional meanings, transitions, and situations.
Blends Task	A score which reflects the ability of the respondent deconstruct and construct the emotions involved in complex feelings.
Change Task	A score which reflects the ability of the respondent to comprehend the evolution of emotions from one form to another.
Managing Emotions (Branch Score)	A score which reflects the ability of the respondent to regulate their emotions and manage the emotions of others.
Emotion Management Task	A score which reflects the ability of the respondent to regulate their own emotion during a decision making process.
Emotion Relations Task	A score which reflects the ability of the respondent to regulate their own emotion during a decision making process that affects other people.

Null Hypothesis: Emotional intelligence will not correlate with relationship satisfaction.

RQ2. Does emotional intelligence correlate with emotional schemas?

H2. Emotional intelligence will correlate with emotional schemas.

Null Hypothesis: Emotional intelligence will ot correlate with emotional schemas.

RQ3. Do emotional schemas correlate with relationship satisfaction after controlling for emotional intelligence?

H3. Emotional schemas will correlate with relationship satisfaction after controlling for emotional intelligence.

Null Hypothesis: Emotional schemas will not correlate with relationship satisfaction after controlling for emotional intelligence.

RQ4. To what extent do emotional schemas mediate the relationship between emotional intelligence and relationship satisfaction?

H4. Emotional schemas will partially mediate the relationship between emotional intelligence and relationship satisfaction.

Null Hypothesis: Emotional schemas do not partially mediate the relationship between emotional intelligence and relationship satisfaction.

Statistical Analysis

The first research question was evaluated using Pearson's product-moment correlation coefficient to determine whether relationship satisfaction (outcome variable) correlated with emotional intelligence (initial variable). If a correlation is found, this will demonstrate that a

relationship (effect) exists between emotional intelligence and relationship satisfaction which may be mediated (path *c*).

The second research question was evaluated using Pearson's product-moment correlation coefficient to determine whether emotional intelligence (initial variable) will correlate with emotional schemas (mediating variable). If a correlation is found, this will demonstrate that a relationship exists between emotional intelligence and emotional schemas (path *a*).

The third research question was evaluated using hierarchical multiple regression analysis to determine whether emotional schemas (mediating variable) account for unique variance in relationship satisfaction (outcome variable) after accounting for variance attributed to emotional intelligence (initial variable). In this context, the relationship satisfaction score was regressed onto the block of emotional schema dimensions (acceptance of feelings, rumination, comprehensibility, guilt, simplistic view of emotion, consensus, validation, higher values, control, rational, numbness, duration, expression, and blame) and then onto the block representing the total, area (experiential and strategic), and branch scores (perceiving emotions, facilitating thoughts, understanding emotions, and managing emotions) of emotional intelligence (path *b*). The initial R^2 obtained reflects the variance between each dimension of emotional schemas and relationship satisfaction, while the second R^2 reflects the total amount of variance attributed to both emotional schemas and emotional intelligence. The difference between the initial R^2 and the second R^2 indicates the unique variance attributed to emotional intelligence after controlling for emotional schemas (R^2 Change = path *c*').

The fourth research question was answered by the outcome of the statistical analysis performed in response to the third question. According to Baron and Kenny (1986), if path *c*' is

zero, then emotional schemas completely mediate the relationship between emotional intelligence and relationship satisfaction. If the first three research questions are answered in the affirmative and path *c*' is not zero, then the criteria for partial mediation will have been met (Baron & Kenny).

Procedures

The data utilized in this study was collected in May of 2012 following Institutional Review Board (IRB) approval. The participants were recruited through the use of Mechanical Turk, an online service provided by Amazon. Due to the anonymous nature of the online collection tool, no relationship existed between the principal investigator and the participants, rendering a consent form unnecessary. This study was limited to an accidental sample of married individuals who responded to the assessments posted on Mechanical Turk.

The assessment packet utilized a demographic questionnaire and provide online access to three instruments: The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT: Mayer, Salovey, & Caruso, 2002), the Relationship Assessment Scales (RAS: Hendrick, 1988), and the Leahy Emotional Schema Scale (LESS: Leahy, 2002). Data was collected from 135 married participants, which was then individually coded and entered into a spreadsheet containing the demographic information and assessment results of each anonymous participant. In the current study, the data was analyzed via the methods outlined by Baron and Kenny (1986).

Ethical Issues

This study followed the ethical standards prescribed by the American Psychological Association (APA) and Liberty University's Institutional Review Board (IRB). The anonymous nature of Mechanical Turk provided participants with a high level of confidentiality and privacy; this was primarily due to the fact that at no time did the primary researcher have access to the identity of the participants. In addition, data collection occurred through written assessments utilizing recognized instruments that evaluated behavior commonly regarded as acceptable within American social boundaries. Participants were not exposed to subject matter that involved any known social, cultural, ethnic, religious, ethical, legal, or sexual taboos. Participation was voluntary and informed consent was waived due to the anonymous nature of Mechanical Turk in keeping with ethical guidelines. In addition, the participants were encouraged to contact the primary researcher, the faculty sponsor, or the IRB if they had any questions or concerns regarding any aspect of the study.

Chapter Summary

In summation, this chapter discusses the methodology that was employed within the study. Included in this section are the research design, participant demographics, psychometric descriptions of the instruments utilized, along with the research questions and hypotheses that articulate the study. This chapter culminates with a chronicle of the data analysis procedures implemented to assay the study's hypotheses.

CHAPTER FOUR: DATA ANALYSIS AND RESULTS

The goal of this study was to examine the relationship between emotional schemas, emotional intelligence and relationship satisfaction in a sample of married individuals. This study employed a cross-sectional, correlational design to assess the three noted constructs in a sample population of married heterosexual individuals using validated assessment tools. Baron and Kenny's (1986) methodology for assessing mediating relationships was utilized to explore the relationship between these variables. The study was designed to answer four research questions: First, does emotional intelligence correlate with relationship satisfaction? Second, does emotional intelligence correlate with emotional schemas? Third, do emotional schemas correlate with relationship satisfaction after controlling for emotional intelligence? Fourth, do emotional schemas completely mediate or partially mediate the relationship between emotional intelligence and relationship satisfaction?

The first research question required that the initial predictor variable (emotional intelligence) correlated with the outcome variable (relationship satisfaction), establishing the existence of an effect. This was addressed using zero-order correlations to examine the relationship between seven measures of emotional intelligence (one total emotional intelligence score, two area scores, and four branch scores) and their interaction with relationship satisfaction. The eight task scores were not used due to the low reliability of some of the scores and the recommendation that the total, area, and branch scores should receive the attention of researchers in most instances (Mayer et al., 2002).

It was hypothesized that the seven identified measures of emotional intelligence would positively correlate with relationship satisfaction.

The second research question required that the initial predictor variable (emotional intelligence) correlated with the mediating predictor variable (emotional schemas), thus treating the mediating predictor variable as an outcome variable. This was addressed using zero-order correlations to examine the relationship between seven measures of emotional intelligence (one total emotional intelligence score, two area scores, and four branch scores) and their relationship to the 14 emotional schema dimensions. It was hypothesized that the seven identified measures of emotional intelligence would positively correlate with the 14 dimensions of emotional schemas.

The third research question required that a series of regression equations utilized relationship satisfaction as the outcome variable while emotional intelligence and emotional schemas were the predictor variables. The initial predictor variable (seven measures of emotional intelligence) had to be controlled before the effect of the mediating predictor variable (14 dimensions of emotional schemas) on the outcome variable (relationship satisfaction) could be established. This was addressed using hierarchical multiple regression to examine the relationship between emotional intelligence, emotional schemas, and relationship satisfaction. It was hypothesized that the 14 dimensions of emotional schemas will correlate with relationship satisfaction after controlling for the seven measures of emotional intelligence.

If the first three questions were answered in the affirmative, then the fourth research question was answered in one of two ways: if the effect of the initial predictor variable (emotional intelligence) on the outcome variable (relationship satisfaction) was zero, then

emotional schemas completely mediate the relationship between emotional intelligence and relationship satisfaction. If the effect of the initial predictor variable (emotional intelligence) on the outcome variable (relationship satisfaction) was not zero, then partial mediation was assumed. It was hypothesized that the 14 dimensions of emotional schemas will partially mediate the relationship between the seven measures of emotional intelligence and relationship satisfaction.

Demographics

The demographic characteristics of the sample population are shown in Table 4.1. Although 220 individuals attempted the assessments, only 135 (N=135) met the inclusion criteria, namely being part of a heterosexual married couple and responding to every answer on each of the three assessments. Almost two thirds of the participants were female (65.9%) while the remaining one third (34.1%) were male. The participants ranged in age from 21 to 63 (M=34.10, SD=10.105). Although the majority of participants self-identified as "White Americans" (77.8%), 7.4% self-identified as "African Americans", 5.9% self-identified as "Asian", 5.2% self-identified as "Hispanic", 1.5% self-identified as Native American/Alaskan Native, 0.7%self-identified as Native Hawaiian or other Pacific Islander, and 0.7% identified themselves as "other". When asked to identify their religious affiliation, the largest segment (28.9%) identified themselves as "other", followed by Catholics at 22.2%, Non-Denominational Protestants at 20.7%, Protestant (e.g. Methodist, Baptist, or some other Non-Catholic Christian Denomination) at 18.5%, Buddhists, Muslims, Mormons, and New Age/Wiccans at 2.2% each, and Hindus at 0.7%. The majority of participants (37.8%) reported that they were childless,

25.2% reported that they had two children, 17.8% reported that they had one child, 11.1% reported that they had three children, 5.9% that they had four children, 1.5% had five children and 0.7% had eight children respectively. Of the 135 participants, 29.6% identified faith as very unimportant to them, 25.9% reported that faith was very important to them, 20.0% said that it was somewhat important, 17.8% reported that it was neither unimportant nor important, and 6.7% noted that faith was somewhat unimportant to them.

Results

Research Question One

The first research question required that the initial predictor variable (emotional intelligence) correlate with the outcome variable (relationship satisfaction), establishing the existence of an effect. This was addressed using zero-order correlations to examine the relationship between seven dimensions of emotional intelligence (one total emotional intelligence score, two area scores, and four branch scores) and their relationship to relationship satisfaction. The alpha level (*p* value) was $p < .05$. See Table 4.2 for an overview.

It was hypothesized that emotional intelligence would positively correlate with relationship satisfaction. The analysis of the data largely failed to support this hypothesis, as the total emotional intelligence score, one area score (strategic emotional intelligence) and three branch scores (i.e. perceiving emotions, understanding emotions, and managing emotions) did not correlate with relationship satisfaction. However, the hypothesis was supported by both the experiential emotional intelligence area score ($r = .175$, $p = .043$) and the facilitating thoughts

Table 4.1
Demographic Characteristics of the Sample

Demographic	Type	N*	%
Gender	Female	89	65.9%
	Male	46	34.1%
Age	20-29	59	43.7%
	30-39	38	28.1%
	40-49	24	17.8%
	50-59	12	8.9%
	60-69	2	1.3%
Ethnicity	White American	105	77.8%
	African American	10	7.4%
	Asian	8	5.9%
	Hispanic	7	5.2%
	American/Alaska Native	2	1.5%
	Pacific Islanders	1	0.7%
	Other	1	0.7%
Religion	Other	39	28.9%
	Catholic	30	22.2%
	Christian (Non-Denominational)	28	20.7%
	Protestant (e.g. Methodist, Baptist, or some other Non-Catholic Christian Denomination)	25	18.5%
	Buddhist	3	2.2%
	Mormon	3	2.2%
	Muslim	3	2.2%
	New Age/Wiccan	3	2.2%
	Hindu	1	0.7%

Demographic	Type	N*	%
Children (Quantity)	0	51	37.8%
	1	24	17.8%
	2	34	25.2%
	3	15	11.1%
	4	8	5.9%
	5	2	1.5%
	8	1	0.7%
Faith Important	Very Important	35	25.9%
	Somewhat Important	27	20.0%
	Neither Unimportant nor Important	24	17.8%
	Somewhat Unimportant	9	6.7%
	Very Unimportant	40	29.6%

Note: *N = 135

(identified as *using emotion* in the data analysis process) branch of emotional intelligence, which was found to correlate with relationship satisfaction at a statistically significant level ($r = .203$, $p = .019$). Thus, the null hypothesis was accepted in five of the seven identified measures of emotional intelligence, and rejected in the remaining two measures. Because the area score reflects the sum of both of its related branch scores (the experiential emotional intelligence area score consists of both the perceiving emotions and facilitating thoughts branch scores), only the facilitating thoughts branch score was used to evaluate the remaining research questions.

Research Question Two

The second research question required that the initial predictor variable (emotional intelligence) correlate with the mediating predictor variable (emotional schemas), thus treating

Table 4.2
Correlation between the Total, Area and Branch Emotional Intelligence Scores and Relationship Satisfaction

	Pearson's Correlation *r*	**Alpha** *p*
Total Emotional Intelligence	.151	.082
Experiential Emotional Intelligence (area score)	.175	.043*
Perceiving Emotions (branch score)	.105	.224
Facilitating Thoughts (branch score)	.203	.019*
Strategic Emotional Intelligence (area score)	.024	.781
Understanding Emotions (branch score)	.019	.829
Managing Emotions (branch score)	.008	.922

Note: * Denotes $p < .05$

the mediating predictor variable as an outcome variable. As noted above, facilitating thoughts was the only branch of emotional intelligence that correlated with relationship satisfaction and therefore met the criteria of step one. Zero-order correlations were utilized to examine only the relationship between the facilitating thoughts branch of emotional intelligence and the 14 emotional schema dimensions. See Table 4.3 for an overview.

It was hypothesized that emotional intelligence, represented by the facilitating thoughts branch, would positively correlate with emotional schemas. The hypothesis was moderately supported by analysis of the data, which demonstrated that seven of the 14 emotional schema dimensions were correlated with the facilitating thoughts branch of emotional intelligence. Four of the seven dimensions were positively correlated (acceptance of feelings [r =.285, p = .001], higher values [r =.221, p = .007], uncontrollability [r =.263, p = .001], and comprehensibility [r =.257, p = .002]), and three were negatively correlated (guilt [r = -.238, p = .004], numbness [r = -.286, p = .000], and blame [r = -.318, p = .000]). Thus, the null hypothesis was accepted in seven dimensions of emotional schemas and rejected in the remaining seven dimensions.

Table 4.3
Correlation between the Facilitating Thoughts (Using Emotion) Branch of Emotional Intelligence and the 14 Dimensions of Emotional Schemas

	Pearson's Correlation *r*	**Alpha** *p*
Acceptance of Feelings	.285	.001**
Rumination	.142	.087
Comprehensibility	.257	.002*
Guilt	-.238	.004*
Simplistic View of Emotion	-.115	.172
Consensus	.142	.088
Validation	.021	.801
Higher Values	.221	.007*
Uncontrollability	.263	.001**
Demands for Rationality	-.054	.522
Numbness	-.286	.000**
Duration	.021	.800
Expression	-.070	.400
Blame	-.318	.000**

Note: * Denotes $p < .01$; ** Denotes $p < .001$

Research Question Three

The third research question required that a series of regression equations were utilized to evaluate the relationship between the variables that were identified in steps one and two. Relationship satisfaction was the outcome variable while the measures of emotional intelligence that met the criteria Baron and Kenny's (1986) step one and the dimensions of emotional schemas that met the criteria of step two were the predictor variables. Only the facilitating thoughts branch was utilized because it was the single dimension of emotional intelligence that correlated with relationship satisfaction, thereby meeting the criteria of the first step of Baron and Kenny's (1986) mediation model. Similarly, seven of the 14 dimensions of emotional

schemas were found to correlate with emotional intelligence, thereby meeting the criteria of the second step of the Baron and Kenny mediation model.

The third research question addresses Baron and Kenny's (1986) third step, which requires that initial predictor variable (facilitation thoughts branch of emotional intelligence) be controlled before the effect of the mediating predictor variable (the seven dimensions of emotional schemas) on the outcome variable (relationship satisfaction) can be established. This was addressed using hierarchical multiple regression analysis to examine the relationship between the facilitating thoughts branch of emotional intelligence, the seven dimensions of emotional schemas that correlated with the facilitating thoughts branch of emotional intelligence, and relationship satisfaction.

It was hypothesized that emotional schemas would positively correlate with relationship satisfaction after controlling for emotional intelligence; according to the Baron and Kenny (1986) model, this would indicate that mediation had occurred. The analysis of the data largely failed to support this hypothesis, as the majority of the dimensions of emotional intelligence and emotional schemas failed to meet the criteria outlined in the first three steps of Baron and Kenny's mediation model. Of the seven dimensions of emotional schemas that correlated with emotional intelligence, only higher values (R^2 = .078) was found to mediate the relationship between the facilitating thoughts branch of emotional intelligence (R^2 = .037), and relationship satisfaction. See Table 4.4. Thus, the null hypothesis was accepted in six of the seven remaining dimensions of emotional schemas and rejected in the remaining dimension.

Table 4.4
Model Summary for Facilitating Thoughts (Using Emotion), Higher Values, and Relationship Satisfaction.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.194[a]	.037	.030	.66087	.037	5.103	1	131	.026
2	.280[b]	.078	.064	.64914	.041	5.776	1	130	.018

a. Predictors: (Constant), Using Emotion

b. Predictors: (Constant), Using Emotion, Higher Values

Research Question Four

If the first three questions are answered in the affirmative, then the fourth research question is answered in one of two ways: if the effect of the initial predictor variable (emotional intelligence) on the outcome variable (relationship satisfaction) is zero, then emotional schemas completely mediate the relationship between emotional intelligence and relationship satisfaction. If the effect of the initial predictor variable (emotional intelligence) on the outcome variable (relationship satisfaction) is not zero, then partial mediation is assumed. If the first three questions are not answered in the affirmative, then the null hypothesis is correct.

It was hypothesized that emotional schemas will partially mediate the relationship between emotional intelligence and relationship satisfaction. The analysis of the data largely failed to support this hypothesis, as the majority of the dimensions of emotional intelligence and emotional schemas did not meet all of the criteria outlined in the first three steps of Baron and Kenny's (1986) mediation model. However, the hypothesis was supported by the one dimension of emotional intelligence and one dimension of emotional schemas: Higher values (R^2 = .078)

was found to mediate the relationship between the facilitating thoughts branch of emotional intelligence (R^2 = .037), and relationship satisfaction.

The data did not meet the criteria for complete mediation, as the effect of the initial predictor variable (emotional intelligence) on the outcome variable (relationship satisfaction) was not zero (R^2 Change = .041). The data did, however, meet the criteria for partial mediation, as facilitating thoughts accounted for 3.7% of the variance in relationship satisfaction, while higher values accounted for an additional 4.1% of the variance in relationship satisfaction. Therefore, the null hypothesis was rejected in this instance.

Chapter Summary

This chapter reported the results of the data that was collected and analyzed using Baron and Kenny's (1986) model, which identified four steps to establishing the presence of mediation. The criterion of step one of the model was met by both the experiential emotional intelligence area score and the facilitating thoughts (identified as *using emotion* in the data analysis process) branch score. However, because the area score reflected the sum of both of its related branch scores, only the facilitating thoughts branch score was utilized in the remaining steps. The criterion of step two was met by seven of the 14 emotional schema dimensions, which were correlated with the facilitating thoughts branch of emotional intelligence. Of these seven emotional schema dimensions, step three identified only higher values as a mediator of the relationship between the facilitating thoughts branch of emotional intelligence and relationship satisfaction. Finally, step four determined that higher values partially mediated the relationship

between facilitating thoughts and relationship satisfaction. Discussion of these results will occur in the next chapter.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Overview

While relationship satisfaction is a primary means of assessing the quality of romantic relationships and has been linked to emotional intelligence and emotional schemas, to date this link has not been fully explored. The purpose of this study was to examine the relationship between emotional schemas, emotional intelligence and relationship satisfaction in a sample of married individuals using Baron and Kenny's (1986) methodology for assessing mediating relationships. With this in mind, four research questions were developed based on the mediation model: 1) does emotional intelligence correlate with relationship satisfaction; 2) does emotional intelligence correlate with emotional schemas; 3) do emotional schemas correlate with relationship satisfaction after controlling for emotional intelligence, and 4) to what extent do emotional schemas mediate the relationship between emotional intelligence and relationship satisfaction? This chapter will summarize the major findings, discuss the conclusions drawn from the findings, note the limitations of the study, and make recommendations for future research.

Summary of Findings

This study utilized four research questions based upon Baron and Kenny's (1986) mediation model to examine the relationship between emotional schemas, emotional intelligence and relationship satisfaction. The findings of each of the four research questions will receive a truncated summary in this section.

Research Question One

The first research question was based on step one of the mediation model and sought to establish that a correlation exists between emotional intelligence and relationship satisfaction. It was hypothesized that correlations would exist between each of the seven dimensions of emotional intelligence and relationship satisfaction. Contrary to the hypothesis, no statistically significant correlations were found for five of the seven dimensions of emotional intelligence; the total emotional intelligence score, one area score (i.e., strategic emotional intelligence) and three branch scores (i.e., perceiving emotions, understanding emotions, and managing emotions). Nevertheless, statistically significant correlations were found for two of the seven dimensions; experiential emotional intelligence area score ($r = .175$, $p = .043$) and the facilitating thoughts branch score ($r = .203$, $p = .019$) of emotional intelligence. Therefore the criterion of step one was met by these two dimensions.

By meeting the criterion of step one, the null hypothesis was rejected for both of the correlated dimensions. This permits continued examination of the relationship between emotional intelligence, emotional schemas, and relationship satisfaction within Baron and Kenny's (1986) mediation model. However, because the area score reflects the sum of both of its related branch scores, only the facilitating thoughts branch score was utilized as a predictor variable to represent emotional intelligence in the step two correlation analysis and the step three multiple regression analysis.

Research Question Two

The second research question was based on step two of the mediation model and sought to establish that a correlation exists between emotional intelligence and emotional schemas. It was hypothesized that correlations would exist between the facilitating thoughts branch score of emotional intelligence and each of the 14 dimensions of emotional schemas. Contrary to the hypothesis, no statistically significant correlations were found for seven of the dimensions; rumination, simplistic view of emotion, consensus, validation, demands for rationality, duration, and expression. Nevertheless, statistically significant correlations ($p < .05$) were found for the remaining seven dimensions; acceptance of feelings, higher values, uncontrollability, comprehensibility, guilt, numbness, and blame. Therefore, the criterion of step two was met by half of the emotional schema dimensions. Four of the seven dimensions were positively correlated with the facilitating thoughts branch score of emotional intelligence (acceptance of feelings [r =.285], higher values [r =.221], uncontrollability [r =.263], and comprehensibility [r =.257]), and three were negatively correlated with the facilitating thoughts branch score (guilt [r = -.238], numbness [r = -.286], and blame [r = -.318]).

By meeting the criterion of step two, the null hypothesis was rejected for seven of the correlated dimensions. This permits continued examination of the relationship between emotional intelligence, emotional schemas, and relationship satisfaction within Baron and Kenny's (1986) mediation model. Only the seven dimensions of emotional schemas that correlated with the facilitating thoughts branch score of emotional intelligence were utilized as predictor variables in step three.

Research Question Three

The third research question was based on step three of the mediation model and sought to establish that a correlation exists between emotional schemas and relationship satisfaction after controlling for emotional intelligence. It was hypothesized that the seven dimensions of emotional schemas would mediate the relationship between the facilitating thoughts branch of emotional intelligence and relationship satisfaction. Contrary to the hypothesis, six of the seven dimensions did not meet the criteria as outlined by step three of the mediation model. Nevertheless one of the dimensions, higher values (R^2 = .078), was identified as a mediator of the relationship between the facilitating thoughts branch (R^2 = .037) of emotional intelligence and relationship satisfaction.

By meeting the criterion of step three, the null hypothesis was rejected for only the higher values dimension of emotional schemas. Therefore, it was established that higher values mediated the relationship between facilitating thoughts and relationship satisfaction in keeping with Baron and Kenny's (1986) mediation model. The rejection of the null hypothesis raised the question of the intensity of the mediation; more specifically, did higher values partially or fully mediate the relationship between facilitating thoughts and relationship satisfaction?

Research Question Four

The fourth research question was based on step four of the mediation model and was dependent upon the establishment of a correlation between each of the variables outlined in the preceding three research questions. Once a correlation was established, the extent to which emotional schemas mediated the relationship between emotional intelligence and relationship

satisfaction was examined. Step four demonstrated that higher values partially mediated the relationship between facilitating thoughts and relationship satisfaction. Specifically, the higher values dimension of emotional schemas accounted for 4.1% of the variance in relationship satisfaction after controlling for the variance (3.7%) that was accounted for by the facilitating thoughts branch of emotional intelligence.

This means that the null hypothesis was rejected for the aforementioned variables; in particular, higher values were found to partially mediate the relationship between facilitating thoughts and relationship satisfaction. Therefore emotional schemas have been found to partially mediate the relationship between emotional intelligence and relationship satisfaction.

Discussion and Recommendations

The study revealed findings that were both consistent and inconsistent with the researcher's expectations. Both sets of findings are discussed in the following section, which concludes with recommendations for future research.

Expected Findings

In keeping with the hypothesis, a link was established between emotional intelligence, emotional schemas, and relationship satisfaction, although the connections were weaker than hypothesized. The study found that one of seven dimensions of emotional intelligence and one of 14 dimensions of emotional schemas influenced relationship satisfaction in a statistically significant manner.

Research Question One.

The first research question sought to establish that a correlation exists between emotional intelligence and relationship satisfaction. In keeping with the findings of Schutte et al. (2001), it was hypothesized that correlations would be found between each of the seven dimensions of emotional intelligence and relationship satisfaction. Although no statistically significant correlations were found for five of the seven dimensions of emotional intelligence, statistically significant correlations were found for the experiential emotional intelligence area score (r = .175, p = .043) and the facilitating thoughts branch score (r = .203, p = .019). Nevertheless, the hypothesis was supported by the findings of the current study, and the work of Schutte and his colleagues was corroborated. The presence of five uncorrelated dimensions of emotional intelligence may be accounted for by Schutte et al.'s utilization of a self-report measure of emotional intelligence rather than a performance-based tool such as the MSCEIT, which may explain some of the discrepancy. As was previously noted, the total emotional intelligence score reflected the sum of the two area scores, and the two area scores reflect the sum of its two branch scores. Because the facilitating thoughts branch score was merged with the perceiving emotions branch score to form the experiential emotional intelligence area score, only the facilitating thoughts branch score was used in the study.

Research Question Two.

The second research question was based on step two of the mediation model and sought to establish that a correlation exists between emotional intelligence and emotional schemas. The original hypothesis theorized that each of the 14 dimensions of emotional schemas would

correlate with emotional intelligence. Because only the facilitating thoughts branch score of emotional intelligence was found to correlate with relationship satisfaction, it was only necessary to evaluate the relationship between the facilitating thoughts branch score, which reflects the ability of the respondent to utilize emotion to enable cognition (Mayer et al., 2002), and the 14 dimensions of emotional schemas. Statistically significant correlations with the facilitating thoughts branch score were found for seven of these dimensions; comprehensibility (r = .257, p = .002), guilt (r = -.238, p = .004), higher values (r = .221, p = .007), uncontrollability (r = .263, p = .001), numbness (r = -.286, p = .000), acceptance of feelings (r = .285, p = .001), and blame (r = -.318, p = .000). These findings were consistent with the work of Greenberg and Safran (1989), who noted that both cognitive and emotional processes influence human behavior. Thus, the data that emerged from the current study supported the idea that a relationship exists between emotions and cognitions.

Research Question Three.

The third research question was based on step three of the mediation model and sought to establish that a correlation exists between emotional schemas and relationship satisfaction after controlling for emotional intelligence. It was hypothesized that the seven dimensions of emotional schemas that were found to correlate with the facilitating thoughts branch of emotional intelligence would mediate the relationship between facilitating thoughts and relationship satisfaction. In keeping with the hypothesis, the higher values dimension (R2 =.078) was found to mediate the relationship between facilitating thoughts emotional intelligence (R2 = .037) and relationship satisfaction as outlined by step three of the mediation model. These

results are also consistent with the work of multiple researchers (e.g. Baucom, McFarland, & Christensen, 2010; McNulty & Russell, 2010; Schokker et al., 2010; Yuan, McCarthy, Holley, & Levenson, 2010), who reported that multiple factors have been found to affect relationship satisfaction; among these factors are emotional intelligence (Joshi & Thingujam, 2009; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011) and emotional schemas (Greenberg & Safran, 1989). Thus, the data that emerged from the current study supported the idea that emotional intelligence and emotional schemas are interrelated subsystems (Magnavita, 2006a) that combine to influence relationship satisfaction.

Research Question Four.

Based on step four of the mediation model (Baron & Kenny, 1986), the fourth research question was dependent upon the outcome of research question three, which examined the extent to which emotional schemas mediated the relationship between emotional intelligence and relationship satisfaction. Step four demonstrated that the higher values dimension of emotional schemas partially mediated the relationship between the facilitating thoughts branch of emotional intelligence and relationship satisfaction. Specifically, higher values accounted for 4.1% of the variance in relationship satisfaction after controlling for the variance (3.7%) that was accounted for by facilitating thoughts. This result was consistent with the hypothesis four, which theorized that emotional schemas would partially mediate that relationship between emotional intelligence and relationship satisfaction. Additionally, the outcome of this study provided support for Magnavita's (2006a) component systems model of nested domains and interrelated subsystems.

Unexpected Findings

While a link was established between emotional intelligence, emotional schemas, and relationship satisfaction, the connections were fewer and weaker than were hypothesized. In fact, only one of seven dimensions of emotional intelligence and one of 14 dimensions of emotional schemas was found to influence relationship satisfaction in a statistically significant manner. This outcome was contrary to the hypotheses developed from the literature review.

Research Question One.

The first research question sought to establish that a correlation exists between emotional intelligence and relationship satisfaction. It was hypothesized that strong correlations would be found between each of the seven dimensions of emotional intelligence and relationship satisfaction. However, contrary to the hypothesis, no statistically significant correlations were found for five of the seven dimensions of emotional intelligence; the total emotional intelligence score, one area score (strategic emotional intelligence) and three branch scores (perceiving emotions, understanding emotions, and managing emotions). Because the total emotional intelligence score reflects the sum of the two area scores, and the two area scores reflect the sum of its two branch scores, only the three branch scores (perceiving emotions, understanding emotions, and managing emotions) that did not correlate with relationship satisfaction will be examined.

Perceiving emotions.

The branch score perceiving emotions reflects the ability of the respondent to identify

emotion in self and others (Mayer et al., 2002). It was hypothesized that an individual's ability to recognize emotion, both in self and in others, would impact relationship satisfaction. However, analysis of the data did not support this perspective.

There are several possible explanations for this outcome. First, the MSCEIT was not designed to assess relationship skills, such as assertiveness and empathy, which resulted in the development of the Humility-Empathy-Assertiveness-Respect Test (HEART: Makino, 2010). One of the primary motivations for the development of the HEART was the inability of the MSCEIT to accurately measure two aspects of emotional intelligence; identifying and communicating emotions (Makino). Therefore, it may be that the perceiving emotions branch of the MSCEIT does not take into account these relationship skills, resulting in the lack of a correlation between this branch and relationship satisfaction. Second, it may be that an individual's investment in a particular romantic relationship interferes with their ability to act on the emotion(s) that they recognize in self, in their romantic partner, or both. This perspective is supported by Lund (1985), who noted that "investment results in irretrievable resources spent on a relationship and consequent strong expectations for continuing it; therefore subsequent behavior is tipped toward more investment" (p. 5). In short, an individual may be more prone to question the accuracy of a felt emotion if they feel that to do so would risk the prior investment that they had in the relationship (e.g., denial).

Understanding emotions.

The branch score understanding emotions reflects the ability of the respondent to comprehend the intricacies of emotional meanings, transitions, and situations (Mayer et al.,

2002). Although it was hypothesized that an individual's ability to comprehend the nuances of emotionally laden interactions would positively impact relationship satisfaction, the findings failed to support this perspective. One explanation for this outcome is that the MSCEIT was designed to assess the knowledge of emotions, not how to employ that knowledge within a relationship (Makino, 2010). The MSCEIT's inability to measure skills such as assertiveness and empathy resulted in the development of the HEART (Makino). Among the arguments for the development of the HEART was the observation that the MSCEIT assesses the knowledge of emotion but does not consistently measure it within a relational context (Makino). Therefore, it may be that the understanding emotions branch of the MSCEIT does not take into account relationship skills, resulting in the lack of a correlation between this branch and relationship satisfaction. Thus, an individual can comprehend the emotional meaning of a situation but not possess the skill required to interact appropriately (e.g., Crandall & Bellugi, 1954; D'Esposito, Blake, & Riccio, 2011; Makino, 2010). For example, a husband may accurately recognize that his spouse is upset because of a situation at work, but instead of listening empathically, may choose to offer advice where none has been requested. While he may desire a solution if he found himself in such a circumstance, his wife may just need to be heard and respond negatively to his advice.

Managing emotions.

The branch score managing emotions reflects the ability of the respondent to regulate their emotions and manage the emotions of others (Mayer et al., 2002). It was hypothesized that an individual's ability to manage their emotions and the emotions of others would positively

impact relationship satisfaction. However, analysis of the data did not support this perspective. It may be that an individual has the ability to manage emotions, but is unable to do so in a genuine or ethical manner, which results in the manipulation of others. For example, such skills can be frequently seen in con men and individuals with antisocial personality disorder (American Psychiatric Association, Diagnostic and Statistical Manual IV, text revision, 2000).

Research Question Two.

The second research question was based on step two of the mediation model and sought to establish that a correlation exists between emotional intelligence and emotional schemas. The original hypothesis theorized that each of the 14 dimensions of emotional schemas would correlate with emotional intelligence. However as previously noted, only the facilitating thoughts branch score of emotional intelligence was found to correlate with relationship satisfaction. Therefore, it was only necessary to evaluate the relationship between the facilitating thoughts branch score, which reflects the ability of the respondent to utilize emotion to enable cognition (Mayer et al., 2002), and the 14 dimensions of emotional schemas. Contrary to researcher expectations, no statistically significant correlations were found for seven of these dimensions; rumination, simplistic view of emotion, consensus, validation, demands for rationality, duration, and expression. It is possible that some, or all, of these dimensions correlated with the other three branches of emotional intelligence, but exploration of this area was irrelevant to Baron and Kenny's (1986) mediation model; therefore an investigation of these relationships was not pursued.

Rumination.

Rumination reflects an individual's tendency to ruminate and focus on one feeling and one thought (Makino, 2010). It was hypothesized that an individual's inability to be cognitively flexible would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. It may be that because an individual was capable of focusing on one feeling, they were able to use that emotion to access a related thought. While cognitive inflexibility may not have permitted the participant to access more than one emotion at a time, one emotion was still capable of facilitating one thought. Thus, it may be the facilitating thoughts branch of emotional intelligence was not impacted by the quantity of emotion stimulating thought interactions, but rather by the simple fact that emotion either was or was not utilized to access thoughts.

Simplistic view of emotions.

Simplistic view of emotions reflects the perception that one's and others' emotions may be contradictory, coupled with one's ability to accept the contradiction (Makino, 2010). It was hypothesized that an individual's ability to accept the possibility that a contradiction may exist between their own thoughts and the thoughts of others would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. It may be that understanding and accepting contradictory emotions did not impact an individual's ability to utilize emotion to access thoughts because the emotions are experienced regardless of the individual's perception of contradiction. Thus, an individual's ability or inability to accept

contradiction did not inhibit their ability to feel emotion and to utilize that emotion to access cognitions.

Consensus.

Consensus reflects an individual's recognition that many others have similar feelings to those that one experiences (Makino, 2010). It was hypothesized that an individual's ability to recognize that others may experience the same feeling as themselves would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. One possible explanation for this outcome is that an individual's awareness that others experience feelings similar to their own (knowledge of feeling) was entirely unrelated to an individual's ability to utilize (employ) emotions to access cognitions. Thus, the recognition that they may experience emotional consensus with others did not impact an individual's ability to access their own emotions.

Validation.

Validation reflects the belief that there is a receptive audience for his/her emotions (Makino, 2010). It was hypothesized that an individual's belief that their emotions would be accepted by others would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. One possible explanation is that, while the level of felt acceptance may impact the level of experienced discomfort, neither of these factors play a role in promoting or inhibiting an individual's ability to access their emotions. Thus,

emotion was used to access cognitions regardless of the level of validation that the individual experienced.

Demands for rationality.

Demands for rationality reflect the tendency to place an overemphasis on rationality and logic (Makino, 2010). It was hypothesized that an individual's overemphasis on rationality and logic would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. It may be that an individual's emphasis on rationality did not interfere with their ability to experience some level of emotion. Thus, in a process similar to rumination, if an individual was capable of experiencing one feeling, that emotion was utilized to access a related thought. While the demand for rationality may not have permitted the participant to access more than one emotion at a time, that one emotion was still capable of facilitating one thought. Thus, it may be the facilitating thoughts branch of emotional intelligence was not impacted by the quantity of emotion-stimulating thought interactions, but rather by the simple fact that emotion either was or was not utilized to access thoughts.

Duration.

Duration reflects the belief that a strong feeling will last a long period of time (Makino, 2010). It was hypothesized that an individual's belief that strong feelings must last a long time would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. It may be that an individual who was afraid of strong feelings would attempt to avoid more powerful emotions, yet still engage less powerful emotions. As has

already been pointed out, the ability to experience one emotion may still permit access to cognition. Thus, it may be the facilitating thoughts branch of emotional intelligence was not impacted by the individual's inability to access strong emotion as long as he or she was able to at least one less powerful emotion to stimulate thought.

Expression.

Expression reflects the willingness to experience and express feelings openly (Makino, 2010). It was hypothesized that an individual's openness to experience and the expression of feelings would affect their ability to utilize emotion to facilitate thought. However, analysis of the data did not support this perspective. It may be that experiencing and expressing emotion was an aspect of the interpersonal domain, while utilizing emotion to facilitate thoughts was related to the intrapsychic domain. While Magnavita (2006a) theorized that these two domains could influence each other, it was not necessary that they would influence each other in every interaction. Thus, it is possible within Magnavita's model for discrete subsystems within the intrapsychic and interpersonal domains to co-exist without interacting or exerting an influence on the other.

Research Question Three.

The third research question was based on step three of the mediation model and sought to establish that a correlation exists between emotional schemas and relationship satisfaction after controlling for emotional intelligence. It was hypothesized that the seven dimensions of emotional schemas that were found to correlate with the facilitating thoughts branch of

emotional intelligence would mediate the relationship between facilitating thoughts and relationship satisfaction. Contrary to the hypothesis, six of the seven dimensions (comprehensibility, guilt, numbness, acceptance of feelings, and blame) did not meet the criteria as outlined by step three of the mediation model.

Comprehensibility.

Comprehensibility reflects the belief that one's own feelings are comprehensible and make sense to him or her; the other extreme would be the catastrophic interpretation of one's feeling (Makino, 2010). It was hypothesized that an individual's belief that their feelings are understandable would mediate the relationship between facilitating thoughts and relationship satisfaction. However, analysis of the data did not support this perspective. In a recent study, Humphreys, Wood, and Parker (2009) reported that a moderate negative correlation exists between alexithymia, characterized by difficulty identifying and describing feelings, and relationship satisfaction. While this finding appears to buttress the original comprehensibility hypothesis, it may be that it only supports the belief that feelings are comprehensible, and fails to support the belief that these feelings make sense to him or her. Thus, the conceptualization of alexithymia as studied by Humphries et al. may only relate to the first aspect of comprehensibility, leaving the second aspect unexplored. More specifically, the inclusion of the idea that own feelings are comprehensible and make sense to him or her may mitigate the negative correlation that exists between alexithymia and relationship satisfaction resulting in the affirmation of the null hypothesis.

Guilt.

Guilt reflects the belief that one should not have certain emotion, accompanied with shame, guilt, and embarrassment about an emotion (Makino, 2010). It was hypothesized that an individual's belief that certain feelings are not acceptable would mediate the relationship between facilitating thoughts and relationship satisfaction. However, analysis of the data did not support this perspective. While researchers have linked schemas in general to relationship satisfaction (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), no direct link has been established between emotional schemas and relationship satisfaction. Although the following assumption may appear counterintuitive, it could be argued that the guilt dimension of emotional schemas is unrelated to relationship satisfaction; more research is required to examine the relationship between the two constructs. Additionally, facilitating thoughts and guilt may not correlate because the construct of facilitating thoughts reflects the ability of the respondent to utilize emotion to enable cognition and guilt reflects the belief that one should not have certain emotions. It may be that if an individual does not believe that they should experience a specific emotion, they will focus on denying or controlling the emotion and therefore be unable to mobilize that particular emotion to stimulate cognition. In other words, individuals who attempt to suppress or deny an emotion will experience difficulty accepting and utilizing that same emotion to stimulate thoughts.

Numbness.

Numbness reflects the tendency to isolate oneself from one's intense emotions (Makino, 2010). It was hypothesized that an individual's belief that one should isolate the self from their

intense feelings would mediate the relationship between facilitating thoughts and relationship satisfaction. However, analysis of the data did not support this perspective. While researchers have linked schemas in general to relationship satisfaction (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), no direct link has been established between emotional schemas and relationship satisfaction. Although the following assumption may appear counterintuitive, it could be argued that the numbness dimension of emotional schemas is unrelated to relationship satisfaction; more research is required to examine the relationship between the two constructs. Additionally, facilitating thoughts and numbness may not correlate because the construct of facilitating thoughts reflects the ability of the respondent to utilize emotion to enable cognition and numbness reflects the tendency to isolate oneself from one's intense emotions. It may be that if an individual distances themselves from strong emotions, they will no longer be able to access that emotion and therefore be unable to mobilize that particular emotion to stimulate cognition. In other words, individuals who attempt to isolate themselves from intense emotion will experience difficulty accepting and utilizing that same emotion to stimulate thoughts.

Acceptance of feelings.

Acceptance of feelings represents an individual's tendency to accept their own feelings as accurate and expend much energy to inhibit feelings (Makino, 2010). It was hypothesized that an individual's belief that their interpretation of feelings is accurate and should be inhibited would mediate the relationship between facilitating thoughts and relationship satisfaction. However, analysis of the data did not support this perspective. While researchers have linked

schemas in general to relationship satisfaction (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), no direct link has been established between emotional schemas and relationship satisfaction. Although the following assumption may appear counterintuitive, it could be argued that the acceptance of feelings dimension of emotional schemas is unrelated to relationship satisfaction; more research is required to examine the relationship between the two constructs. Additionally, facilitating thoughts and acceptance of feelings may not correlate because the construct of facilitating thoughts reflects the ability of the respondent to utilize emotion to enable cognition, and acceptance of feelings represents an individual's tendency to accept their feelings as accurate and expend much energy to inhibit those feelings. It may be that if an individual accepts inaccurate emotions as an accurate, they will access cognitions that reflect the inaccurate emotion rather than the thoughts that would have been stimulated by an accurate interpretation of their feelings. Thus, an inaccurate emotion may stimulate a cognition that isn't applicable to the situation. It may also hold that if an individual inhibits their emotion, they will no longer be able to access that emotion and therefore be unable to mobilize that particular emotion to stimulate cognition. Therefore, individuals who attempt to isolate themselves from intense emotion will experience difficulty accepting and utilizing that same emotion to stimulate thoughts.

Blame.

Blame represents the belief that others cause one's negative feelings (Makino, 2010). It was hypothesized that the belief that others cause one's negative feelings would mediate the relationship between facilitating thoughts and relationship satisfaction. However, analysis of the

data did not support this perspective. While researchers have linked schemas in general to relationship satisfaction (Chatav & Whisman, 2008; Marshall, Panuzio, Makin-Byrd, Taft, & Holtzworth-Munroe, 2011), no direct link has been established between emotional schemas and relationship satisfaction. Although the following assumption may appear counterintuitive, it could be argued that the blame dimension of emotional schemas is unrelated to relationship satisfaction; more research is required to examine the relationship between the two constructs. Additionally, facilitating thoughts and blame may not correlate because the construct of facilitating thoughts reflects the ability of the respondent to utilize emotion to enable cognition, and blame represents the belief that others cause one's negative feelings. In this sense, blame may mimic the inhibition aspect of acceptance of feelings as it interacts with facilitating thoughts. It may be that if an individual believes that they are not responsible for an experienced emotion that they distance themselves from the emotion by focusing on why the emotion is present rather than using the emotion to access cognitions. Therefore, instead of accepting responsibility for their own emotion, an individual places the blame for their affect on someone or something else instead of attempting to find meaning in what they are feeling. Thus, placing blame on another individual or circumstance may block the stimulation of cognition by invalidating the source of the emotion.

Research Question Four.

The fourth research question was based on step four of the mediation model and was dependent upon the establishment of a correlation between each of the variables outlined in the preceding three research questions. Once a correlation was established, the extent to which

emotional schemas mediated the relationship between emotional intelligence and relationship satisfaction was examined. Step four demonstrated that higher values partially mediated the relationship between facilitating thoughts and relationship satisfaction. Specifically, the higher values dimension of emotional schemas accounted for 4.1% of the variance in relationship satisfaction after controlling for the variance (3.7%) that was accounted for by the facilitating thoughts branch of emotional intelligence. However, the variance accounted for by both facilitating thoughts and higher values was lower than anticipated.

One possible explanation is that the MSCEIT was designed to assess the knowledge of emotions, not how to employ that knowledge within a relationship (Makino, 2010). The MSCEIT's inability to measure skills such as assertiveness and empathy resulted in the development of the HEART (Makino). Among the arguments for the development of the HEART was the observation that the MSCEIT assesses the knowledge of emotion but does not consistently measure it within a relational context (Makino). Magnavita's (2006a) component systems model is dependent upon interrelated relationships; therefore the inability of the MSCEIT to accurately measure values within this context may account for the resulting lack of a correlation between some of the scores of emotional intelligence and relationship satisfaction. Thus, it is possible that an undetected correlation exists between some excluded emotional intelligence scores and relationship satisfaction, thereby influencing which scores were utilized in steps two through four, which in turn may have altered the outcome of the study.

Additionally, this outcome may be due to design of the study, which only examined the mediating role of the variables rather than also considering their possible moderating effects (Edwards & Lambert, 2007). Because a mediator "explains the relation between a predictor and

an outcome" (Frazier, Tix, & Kenny, 2004, p.116) and a moderator "alters the direction or strength of the relation between a predictor and outcome" (Frazier et al., p.116), it is conceivable that some of the variables excluded from further study by steps one and two of Baron and Kenny's (1986) model may have possessed moderating effects on the relationship between emotional intelligence, emotional schemas, and relationship satisfaction. By including both the mediating and moderating effects of each variable in the study, a more complete picture of the relationship between emotional intelligence, emotional schemas, and relationship satisfaction may have emerged.

Implications

Understanding how emotional intelligence, emotional schemas, and relationship satisfaction interact has the potential to impact both practice and research within the mental health community. In this section, the implications of this study for both of these areas are briefly discussed.

Implications for Research

As Vaughn and Baier (1999) noted, heterosexual marriages have historically formed the basis of relationship satisfaction studies because they are the most common type of long-term relationship. Within this context, the results of the study highlight the need for more research related to understanding the interactions between emotional intelligence, emotional schemas, and relationship satisfaction. This is particularly noteworthy because the data collected within this study largely failed to support Magnavita's (2006a) component systems model which

suggested that human personality is characterized by four layers of interrelated subsystems. It is noteworthy that, while the majority of the data did not support Magnavita's conceptualization of interrelated subsystems, some of the data did indeed support the component systems model. The lack of strong empirical support of Magnavita's model may be due to the current study's theoretical conceptualization or research design.

For example, one possible explanation is that the MSCEIT was designed to assess the knowledge of emotions, not how to employ that knowledge within a relationship (Makino, 2010). However, Magnavita's (2006a) component systems model is dependent upon interrelated relationships; therefore the inability of the MSCEIT to accurately measure values within a relationship may account for the resulting lack of a correlation between some of the scores of emotional intelligence and relationship satisfaction. Thus, it is possible that an undetected correlation exists between some excluded emotional intelligence scores and relationship satisfaction. Additionally, this outcome may be due to design of the study, which only examined the mediating role of the variables rather than also considering their possible moderating effects (Edwards & Lambert, 2007). It is conceivable that some of the variables excluded from further study by steps one and two of Baron and Kenny's (1986) model may have possessed moderating effects on the relationship between emotional intelligence, emotional schemas, and relationship satisfaction. By including both the mediating and moderating effects of each variable in the study, a more complete picture of the relationship between emotional intelligence, emotional schemas, and relationship satisfaction may have emerged. Because of these issues, further research is needed to validate or refute the findings of the study.

Implications for Practice

Despite the lack of strong support for Magnavita's model, the current study did identify higher values as a mediator between the using emotions to facilitate thoughts branch of emotional intelligence and relationship satisfaction. This means that an individual's tendency to utilize emotion to bring clarity to their underlying needs and values influences their capability to use emotion to facilitate thought, and that these variables affect relationship satisfaction, both individually and in combination. Leahy's (2002) conceptualization of higher values is consistent with the construct of mindfulness, which is utilized by practitioners of dialectical behavior therapy (DBT; Harrington & Pickles, 2009), while Mayer, Salovey and Caruso's (2002) definition of using emotions to facilitate thoughts is consistent with David Burns' (1999) Cognitive Interpersonal Therapy. The current study offers further empirical support for the efficacy of these and other related treatment modalities.

Viewed from a biblical perspective, it is not surprising that emotions impact thoughts, that these thoughts fuel actions, and that these actions in turn impact relationships. With this in mind, Mark 7:20 (NKJV) states:

> And He said, "What comes out of a man, that defiles a man. For from within, out of the heart of men, proceed evil thoughts, adulteries, fornications, murders, thefts, covetousness, wickedness, deceit, lewdness, an evil eye, blasphemy, pride, foolishness. All these evil things come from within and defile a man."

Another way of viewing this connection is to consider Galatians 5:19-23, which says:

> Now the works of the flesh are evident, which are: adultery, fornication, uncleanness, lewdness, idolatry, sorcery, hatred, contentions, jealousies, outbursts of wrath, selfish

> ambitions, dissensions, heresies, envy, murders, drunkenness, revelries, and the like; of which I tell you beforehand, just as I also told you in time past, that those who practice such things will not inherit the kingdom of God. But the fruit of the Spirit is love, joy, peace, longsuffering, kindness, goodness, faithfulness, gentleness, self-control. Against such there is no law.

In these passages emotions (e.g., outbursts of wrath, hate, love, and joy) are intermixed with thoughts, (e.g., ambitions and evil thoughts) and deeds (e.g., murder, adultery, kindness, and faithfulness). It is not difficult to conclude that all three of these in combination impact relationship satisfaction. It would then then follow that learning how to control "the tendency to use emotions to clarify one's underlying needs and personal values" (Makino, 2010, p. 156) should lead to greater relationship satisfaction. Accordingly, the Christian pastor or counselor who assists an individual in learning how their emotions and thoughts interact to create behavior will not only provide sound biblical and counseling guidance, they will also provide a solid foundation upon which to increase the relationship satisfaction of both the individual and his or her partner.

Limitations

The limitations of this study center on design, sample selection, and assessments.

First, the study used a cross-sectional correlational design, which limits data collection to a single moment in time. The use of a longitudinal design would have provided data sequentially over a specified length of time, which would have provided a richer pool of data predicated upon assessing the consistency of each participant's ability and beliefs at multiple moments of time.

Second, this outcome may be due to the use of Baron and Kenny's (1986) model, which only examined the mediating role of the variables rather than also considering their possible moderating effects (Edwards & Lambert, 2007). Because a mediator "explains the relation between a predictor and an outcome" (Frazier, Tix, & Kenny, 2004, p.116) and a moderator "alters the direction or strength of the relation between a predictor and outcome" (Frazier et al., p.116), it is conceivable that some of the variables excluded from further study by steps one and two of the Baron and Kenny model may have possessed moderating effects on the relationship between emotional intelligence, emotional schemas, and relationship satisfaction. By including both the mediating and moderating effects of each variable in the study, a more complete picture of the relationship between emotional intelligence, emotional schemas, and relationship satisfaction may have emerged.

Third, this study was limited to an accidental sample of individuals currently in a heterosexual marriage who responded to the assessments posted on Mechanical Turk. One of the limitations of this type of data collection is the unknown nature of the population (Vogt, 2005). In particular, the participants' environment is uncontrolled and the data may be tainted by fake responses (Gosling, Vazire, Srivastava, & John, 2004). Therefore, the results may not generalize to specific subsets of married persons, to populations outside of the United States, or to the population of couples in general. Regardless of these limitations, recent studies (e.g., Buhrmester, Kwang, & Gosling, 2011; Gosling et al.) indicate that the data gathered via Mechanical Turk is as valid as that gathered by traditional assessments.

Fourth, as previously noted, the primary inclusion criterion specified that participation was limited to those individuals who were currently involved in a heterosexual marriage.

Because they are the most common type of long-term relationship, heterosexual marriages have historically formed the basis of relationship satisfaction studies (Vaughn & Baier, 1999). Therefore the results of this study may not generalize to specific subsets of married persons, such as homosexual unions, or other variations of romantic relationships, such as cohabiting or dating couples.

Fifth, the Leahy Emotional Schema Scale (Leahy, 2002) and Relationship Assessment Scale (Hendrick, 1988) are self-report instruments. Because the validity of the responses in self-report instruments is reliant upon the self-awareness and integrity of the respondent (Dijkshoorn, Ujcic-Voortman, Viet, Verhoeff, & Uitenbroek, 2011), it was assumed that study participants possessed both of these qualities. It should also be noted that social desirability measures were not utilized to account for biased responding. Additionally, because a mediation model implies causality (Baron, & Kenny, 1986), the use of self-report instruments may challenge the validity of the conclusions drawn from the data; these concerns were taken into account when discussing the results of the study.

Finally, the MSCEIT was designed to assess the knowledge of emotions, not how to employ that knowledge within a relationship (Makino, 2010). The MSCEIT's inability to measure skills such as assertiveness and empathy resulted in the development of the HEART (Makino). Among the arguments for the development of the HEART was the observation that the MSCEIT assesses the knowledge of emotion but does not consistently measure it within a relational context (Makino). Magnavita's (2006a) component systems model is dependent upon interrelated relationships; therefore the inability of the MSCEIT to accurately measure values within this context may account for the resulting lack of a correlation between some of the scores

of emotional intelligence and relationship satisfaction. Thus, it is possible that an undetected correlation exists between some excluded emotional intelligence scores and relationship satisfaction, thereby influencing which scores were utilized in steps two through four, which in turn may have altered the outcome of the study.

Recommendations

First, the use of a longitudinal design would provide data sequentially over a period of time, which in turn would provide a richer pool of data. A longitudinal design would permit future researchers to assess the consistency of each participant's ability and beliefs at multiple moments in time. Thus changes in one or more dimensions could be more accurately evaluated, allowing for the development of a more complete picture of the interrelationship between the variables. Second, examining these variables with the context of both mediation and moderation would have provided a more comprehensive evaluation of the relationship between emotional intelligence, emotional schemas, and relationship satisfaction (Frazier, Tix, & Kenny, 2004). Third, the use of random sampling would reduce the risk of bias in the data collection process (Vogt, 2005) and avoid risks associated with the use of accidental sampling (Gosling, Vazire, Srivastava, & John, 2004; Vogt). This would allow the results to generalize to specific subsets of married persons, such as homosexual unions, to populations outside of the United States, or to the population in general, thus increasing the study's external validity. Fourth, if random sampling was not employed, the elimination of heterosexual marriage as a primary inclusion criterion would also increase the study's external validity. Although heterosexual marriages have historically formed the basis of relationship satisfaction studies (Vaughn & Baier, 1999),

the RAS was designed to accommodate other relationships as well (Hendrick, 1988). This would permit the inclusion of specific subsets of married persons or other variations of romantic relationships, such as cohabiting or dating couples. Fifth, because the Leahy Emotional Schema Scale and Relationship Assessment Scale are self-report instruments and therefore dependent upon the self-awareness and integrity of the respondent (Dijkshoorn, Ujcic-Voortman, Viet, Verhoeff, & Uitenbroek, 2011), the role of social desirability may need to be taken into account in future studies. Finally, the use of the HEART to evaluate emotional intelligence may increase the sensitivity to the role that relationships play in emotional intelligence and produce higher correlations between emotional intelligence and relationship satisfaction. This in turn may provide additional support for the component systems model.

Summary

This study examined the relationship between emotional schemas, emotional intelligence and relationship satisfaction in a sample of married individuals. In keeping with Baron and Kenny's (1986) mediation model, correlations were found between the facilitating emotions branch of emotional intelligence and relationship satisfaction, and between the facilitating emotions branch of emotional intelligence and the higher values dimension of emotional schemas. Hierarchical multiple regression analysis demonstrated that the higher values dimension of emotional schemas accounted for 4.1% of the variance in relationship satisfaction after controlling for the variance (3.7%) that was accounted for by the facilitating thoughts branch of emotional intelligence. Although the link between emotional intelligence, emotional schemas, and relationship satisfaction was not as strong as originally hypothesized, the current

study provides empirical evidence that a weak connection does exist between the identified constructs.

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APPENDIX A: Demographic Questionnaire

Please note that you must be engaged in a heterosexual marriage in order to participate in this study.

1. How long have you been married? _____

2. Your Age: _____

3. Your gender: _____ (indicate a or b)

    a. Male
    b. Female

4. Ethnicity: Choose one from the following _____ (indicate following options)

    a. African American
    b. White American
    c. Hispanic
    d. Asian and Pacific Islanders
    e. The other : _____

5. Number of children ____.

6. Religious Affiliation

    a. Buddhist
    b. Catholic
    c. Christian (Non-Denominational)
    d. Hindu
    e. Mormon
    f. Muslim
    g. New Age/Wiccan
    h. Other
    i. Protestant (e.g. Methodist, Baptist, or some other non-Catholic denomination)

7. Importance of Faith in your daily life

    a. Very Unimportant
    b. Somewhat Important
    c. Neither Unimportant nor Important
    d. Somewhat Unimportant
    e. Very Important

APPENDIX B: Leahy Emotional Schemas Scale

We are interested in how you deal with your feelings or emotions--for example, how you deal with feelings of anger, sadness, anxiety, or sexual feelings. We all differ in how we deal with these feelings, so there are no right or wrong answers. Please read each sentence carefully and answer each sentence, using the scale below, as to how you deal with your feelings during the past month.

1 = very untrue of me
2 = somewhat untrue of me
3 = slightly untrue of me
4 = slightly true of me
5 = somewhat true of me
6 = very true of me

Item	Rating (1-6)
1. When I feel down, I try to think about a different way to view things.	
2. When I have a feeling that bothers me, I try to think of why it is not important.	
3. I often think that I respond with feelings that others would not have.	
4. Some feelings are wrong to have.	
5. There are things about myself that I just don't understand.	
6. I believe that it is important to let myself cry in order to get my feelings "out."	
7. If I let myself have some of these feelings, I fear I will lose control.	
8. Others understand and accept slay feelings.	
9. You can't allow yourself to have certain kinds of feelings---- like feelings about sex or violence.	
10. My feelings don't make sense to me.	
11. If other people changed, I would feel a lot better.	
12. I think that there are feelings that I have that I am not really aware of.	
13. I sometimes fear that if I allowed myself to have a strong feeling, it would not go away.	
14. I feel ashamed of my feelings.	
15. Things that bother other people don't bother me.	
16. No one really cares about my feelings.	
17. It is important for me to be reasonable and practical rather than sensitive and open to nay feelings.	
18. I can't stand it when I have contradictory feelings --- like liking and disliking the same person.	
19. I am much more sensitive than other people.	
20. I try to get rid of an unpleasant feeling immediately.	
21. When I feel down, I try to think of the more important things in life--what I value.	
22. When I feel down or sad, I question my values.	

23. I feel that I can express my feelings openly.	
24. I often say to myself, "What's wrong with me?"	
25. I think of myself as a shallow person.	
26. I want people to believe that I am different from the way I truly feel.	
27. I worry that I won't be able to control my feelings.	
28. You have to guard against having certain feelings.	
29. Strong feelings only last a short period of time.	
30. You can't rely on your feelings to tell you what is good for you.	
31. I shouldn't have some of the feelings that I have.	
32. I often feel "numb" emotionally--like I have no feelings.	
33. I think that my feelings are strange or weird.	
34. Other people cause me to have unpleasant feelings.	
35. When I have conflicting feelings about someone, I get upset or confused.	
36. When I have a feeling that bothers me I try to think of something else to think about or to do.	
37. When I feel down, I sit by myself and think a lot about how bad I feel.	
38. I like being absolutely definite about the way I feel about someone else.	
39. Everyone has feelings like mine.	
40. I accept my feelings.	
41. I think that I have the same feelings that other people have.	
42. There are higher values that I aspire to.	
43. I think that my feelings now have nothing to do with how I was brought up.	
44. I worry that if I have certain feelings I might go crazy.	
45. My feelings seem to come out of nowhere.	
46. I think it is important to be rational and logical in almost everything.	
47. I like being absolutely definite about the way I feel about myself.	
48. I focus a lot on my feelings or my physical sensations.	
49. I don't want anyone to know about some of my feelings.	
50. I don't want to admit to having certain feelings--but I know that I have them.	

Leahy R. (2002). A model of Emotional Schemas. *Cognitive and Behavioral Practice, 9*, 177-190.

APPENDIX C: MSCEIT Permissions and Copyright Application

PERMISSIONS APPLICATION

Please complete the following application and return in Excel (.XCL) or Adobe (.PDF) format to permissions@mhs.com. If any
specific details in the section immediately following are not applicable, please indicate with N/A.

Once a completed and signed Application has been received and approval has been granted by Multi-Health Systems Inc. ("MHS")
your payment will be processed.

Name of Applicant: Gregory S. Mears

Name of Supervisor (if student research): Dr. John Thomas

Name of Institution or Organization: Liberty University

Mailing Address: 110 Adams Drive, Lynchburg, Va 24502

Country: USA

Telephone: 434-401-3168

Fax: N/A

Email Address: gsmears@liberty.edu

PURCHASER QUALIFICATION

Purchasers of B - Level Tests: must have completed graduate-level courses in tests / measurement or have received equivalent documented training.

Purchasers of C - Level Tests: must meet B - Level qualifications, and must have training and / or experience in the use of tests, and have completed an advanced degree in an appropriate profession (e.g. psychology, psychiatry). Additionally, depending on state requirements, membership in a relevant professional organization (e.g. APA), or a state license / certificate in psychology or psychiatry may be necessary. Test specific qualification criteria may also apply.

Which of the following describes your level of training?

Master's

Registered Practitioner License Number: N/A

Field of Study: MA Counseling/ABD Professional Counseling

Year of Completion: 2003/2012 ABD

If Master's or Bachelor's, have you completed graduate level courses in assessment / testing?

YES

Name of Course: COUN 710 Appraisal Techniques/COUN 800 Personality Testing

Year of Completion: 2003/2008

TRIAL / STUDY INFORMATION

Name of Research Project: Examining the Relationship Between Emotional Schemas, Emotional Intelligence

Start Date of Project: 9-Apr-12

End Date of Project: 30-Apr-12

Name of Test Required: MSCEIT

# of participants in the Project: 200

Do you wish to adapt or reformat the test in any way*?

Yes

No

*Please note any reformatting of test items or materials must first be approved by MHS Inc. - Please attach sample format.

Please indicate other languages required*:

N/A

*Note: MHS does have assessments in a variety of languages. However, MHS does not provide translation or linguistic validation services for assessments that are not available in the languages required. MHS can recommend preferred translation

726363614@16052008-0616

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Please provide a brief description of the Project or Study below. Include components of test to be used and / or reproduced and languages required.

The study will examine the mediating effects of Emotional Schemas on the relationship between Emotional Intelligence and Relationship Satisfaction. I am seeking permission for the English version of the MSCEIT to be accessed directly within the Mechanical Turk (Mturk) platform to simplify the process for the participants.

B. ONLINE REPRODUCTION

What is the name of the website where the Test will be located?

https://www.mturk.com/mturk/

Please provide a detailed description of the security features within your website to ensure that the general public will not have access to the site. (i.e. passwords, login identification, etc.)

Because special qualifications are required to complete the tasks, I will require that participants pass a qualification test before they are allowed to work on the assessments; unqualified participants will be unable to view the website. Participants will also be limited to include only those who have historically completed a minimum percentage of their tasks correctly or a minimum number of previous HITs in order to qualify for my HIT. Once the required number of participants has been reached, the HIT will be removed from the website.

The Test may be displayed on Applicant’s website or via an online survey engine solely for data collection.

1. The Applicant shall implement a system reasonably intended to restrict access of participant users to the Test.

2. Applicant shall inform all users who visit the identified website that they are prohibited from digitally copying, saving, storing or otherwise reproducing the Test & may not use it for any purpose other than completing the administration as requested by the Applicant.

3. Applicant shall take reasonable security measures and encryption measures to protect participant information maintained by the website, MHS assumes no liability for personal information.

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CONDITIONS OF APPLICATION

• An incomplete Application will not be processed and/or approved.

• You agree not to disclose any information regarding the Test to any third party, except to those who have a need to know such information in order to conduct any translations, research studies or online projects.

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• There shall be no refund, credit or offset of any fees paid per unused materials.

• MHS materials or items are not to be used, referenced or referred to in the building or creation of another test.

AGREEMENT TO TERMS AND CONDITIONS

I, agree to abide by MHS conditions.

Greg Mears

Supervisor Name * N/A

Date: 4/9/2012

Application Approved By: MHS Authorization

Initials 726363614@16052008-061D

APPENDIX D: Hendrick Relationship Assessment Scale (RAS)

Respond to each statement by typing the number to indicate your satisfaction you feel in your intimate relationship (marriage or dating). If you are not involved in an exclusive romantic relationship, leave this questionnaire blank.

Item	Rating (AE)
1. How well does your partner meet your needs? A B C D E Poorly Average Extremely well	
2. In general, how satisfied are you with your relationship? A B C D E Unsatisfied Average Extremely satisfied	
3. How good is your relationship compared to most? A B C D E Poor Average Excellent	
4. How often do you wish you hadn't gotten in this relationship? A B C D E Never Average Very often	
5. To what extent has your relationship met your original expectations: A B C D E Hardly at all Average Completely	
6. How much do you love your partner? A B C D E Not much Average Very much	
7. How many problems are there in your relationship? A B C D E Very few Average Very many	

Permission to use obtained from Dr. Hendrick.

Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family, 50*, 93–98.

APPENDIX E: LESS Permission

SOURCES

Authors: Robert Leahy
Title: A model of Emotional Schemas
Journal: Cognitive & Behavioral Practice
Volume: 9
Pages: 177 - 190
Year: 2002

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APPENDIX F: RAS Permission

Hendrick, S [s.hendrick@ttu.edu]

To: Mears, Gregory Scott

Attachments: RAS.doc (24 KB)[Open as Web Page]
Monday, April 02, 2012 10:55 AM

Greg,

Yes, you are welcome to use the Relationship Assessment Scale (RAS) in your research. I have attached a copy for your use. Best wishes in your work.

Susan Hendrick
Susan S. Hendrick, Ph.D.
Paul Whitfield Horn Professor of Psychology
Texas Tech University

From: Mears, Gregory Scott [mailto:gsmears@liberty.edu]
Sent: Monday, April 02, 2012 9:22 AM
To: Hendrick, S
Subject: Relationship Assessment Scale

Dr. Hendrick,

In fulfillment of my dissertation requirement, I am examining the mediating effects of emotional schemas on the relationship between emotional intelligence and relationship satisfaction. The Relationship Assessment Scale is a tool that I would like to use as a part of this project. With this in mind, I would like to have your permission to utilize the RAS as an assessment of relationship satisfaction.

If I can be of assistance in any way, you can contact me at the above email address or via phone at 434-401-3168.

Respectfully,

Greg Mears, MA

APPENDIX G: MSCEIT Permission

Hello Greg,

Congratulations! You have been approved for a Student Research Discount on the ***MSCEIT*** for your study entitled ***Examining the Relationship Between Emotional Schemas, Emotional Intelligence, and Relationship Satisfaction.***

This discount grants you 30% off of related product orders over $50 (before shipping) as well as access to scored datasets for a fee of $6 per administration online. **Please call client services at 1.800.456.3003 using the following customer number to place your order: *184174***. Keep this number on file as you will need it to place future orders with us.

Conditions

1) Your discount expires one year from today. If you require a discount beyond the expiry date please re-apply at that point.
2) Please bear in mind that scored datasets are to be used for the collection of data only and cannot be used to provide feedback to respondents. If you are intending to provide feedback please ensure that you order one of our available reports. Your 30% discount will apply to the report cost.
3) It is mandatory that you are in possession of the Users/Technical Manual while making use of this assessment. Please ensure that you order a copy if you do not already have one.
4) Your research is important to us, as agreed upon in your application please remember to send a report of your results to: researchsummaries@mhs.com following the completion of your study.

Administration Instructions

I will send you instructions via email on how to access the online administration and scoring service.

Thank you, and good luck with your research,

Shawna Ortiz**,** *Customer Service Representative*
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