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An Exploration of Schemas, Stress, Mood, and Conflict in Women's Close Relationships: Can the way we think prime emotions, promote stress, and provoke conflict?

by

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ABSTRACT

Early maladaptive schemas (EMS) are negative cognitions about the self that develop in accordance to one's relationships with others and the world. EMS develop early in life in response to four childhood experiences (unmet needs, trauma, parental overindulgence, and internalization/identification) and contribute to psychological distress (e.g. depression and anxiety) and can affect one's interpersonal relationships. Daily hassles are the seemingly routine life events that can lead to stress, such as tension in interpersonal relationships, workplace stress, or financial difficulties. Various relationships between past experiences of trauma, associated post-trauma symptoms, and early maladaptive schemas were hypothesized to significantly predict negative appraisal of daily hassles, an increase in negative affect, and an increase in destructive conflict strategies. One hundred eighty two female students were recruited to complete assessments measuring cognitive schemas, trauma history, daily hassles, depression, positive and negative mood states, and interpersonal conflict strategies. Regression analysis and tests for mediation and moderation were conducted to examine the various relationships between predictor and outcome variables. The support of these hypotheses provides greater understanding of the interaction between past and present experiences of stress and cognitive schemas as well as their impact on mood and interpersonal functioning.

INTRODUCTION

"Significant experiences of early life may never recur again, but their effects remain and leave their mark…they are registered as memories, a permanent trace and an embedded internal stimulus…Once registered, the effects of the past are indelible, incessant and inescapable…The residuals of the past do more than passively contribute their share to the present…they guide, shape or distort the character of current events. Not only are they ever present, then, but they operate insidiously to transform new stimulus experiences in line with past." (Milllon, 1981 as cited in Young, 1999, p. 11)

Researchers have long been interested in how psychological processes, such as cognitive schemas, influence psychological adjustment, behavior, and interpersonal relationships. Cognitive schemas are best described as an organized framework about a specific circumstance or relationship. Cognitive schema research has prompted the development of theories that illuminate cognitive schemas as key components of thoughts, feelings, behaviors, or relationships. Specifically, two theories were proposed to identify the intersection of these cognitive processes and psychopathology: cognitive theory of depression (Beck, 1967) and schema theory (Young, 1990).

In the 1960's, Aaron Beck brought together cognitive process models and psychological adjustment theory and introduced a cognitive model or cognitive theory of depression. The model identified three main levels of thinking that contribute to chronically high levels of depression, anxiety, and other persistent affective or personality disorders: negative schema of the self, dysfunctional beliefs or assumptions about others and the environment, and undesirable or destructive automatic thoughts. These negative or depressive schemas about the

self were at the center of the model. Beck defined schemas as conditional beliefs about the self that remain dormant until activated in specific situations and/or interactions with others (Beck, 1967). That is, when an individual encounters a situation presenting novel information, he/she processes and encodes it by relating the new information to existing schemas. In addition, if the information does not correspond or match the existing beliefs or expectations, then an alteration of the new information occurs to enhance the current framework. The addition of the new information reinforces the schemas and the schemas are more likely to be activated during navigation of future experiences and relationships. For example, an individual may believe in a negative statement such as, "If I can please others all the time, then I will be loved." The critical piece of this statement is the "If…then…" statement which suggests that when this individual can not please others, or perceives that he/she is not pleasing others, he/she believes that he/she is not loved, valued, or wanted. Under this specific condition, negative beliefs are activated and feelings of worthlessness and defectiveness are likely to follow. The cycle of schema activation under certain conditions followed by the reinforcement of the schema allows an individual to increase reliance on the schema as they navigate future experiences and relationships.

Maladaptive Schemas

Alternatively, Young's schema theory identified a set of unconscious schemas that augment core beliefs about the self, others, and the environment (Young, 1990). Young (1990) postulates that cognitive representations, exist at a

deeper level, creating unconditional schemas that are readily accessible and available to alter novel information in order to maintain consistent core beliefs. An example of one belief is, "I am unlovable." At the most basic level, both Young and Beck describe similar cognitive processes that have been found to influence psychological adjustment, but Early Maladaptive Schemas (EMS), as proposed by Young, operate as a unique set of unconditional expectations, perceptions, and beliefs that are often hypervalent; thus, having a greater negative impact on psychological distress (Young, 1990).

Young's schema theory posits that specific expectations and beliefs about the self and the environment evolve over a lifetime of interactions within interpersonal relationships and experiences. EMS are cognitive and emotional processes, specifically negative cognitions about the self in relation to others and the environment, that begin to develop during early childhood. These schemas manifest from the combination of temperament, a destructive environment, and core needs that are unmet during childhood. Young and Klosko (1993) identify five dimensions of temperament that are potential contributors to the development of EMS: shy and outgoing; passive and aggressive; emotionally flat and emotionally intense; anxious and fearless; sensitive and invulnerable. The interaction between a child's temperament and their experiences and relationships within their environment greatly influences EMS development. Early childhood experiences, relationships, and the overall environment that are destructive can have detrimental influences. For example, destructive environments can include:

abusive parent or parents; emotionally distant parents with high expectations for achievement; overly critical parents and nothing was ever good enough; overindulgent parents who did not set limits.

Finally, when core needs of a child are unmet it is likely that EMS will develop. These needs include, safety and security, personal connection, autonomy, self-esteem, self-expression, and realistic limits. Young (1990) introduced five schema domains that represent the core basic human needs that go unmet during childhood, contribute to the development of the schemas, and remain unmet in adulthood. The five domains are disconnection and rejection, impaired autonomy and performance, impaired limits, other-directedness, and over vigilance and inhibition. Each domain consists of schemas that exemplify the unmet needs and/or destructive environment that contribute to the development and maintenance of the beliefs. Within each domain Young has identified individual EMS that specifically exemplify the experiences and unmet needs in early childhood that manifest into thoughts, feelings, beliefs, and expectations and carry on into adulthood. An example of the construction of the schema domains is the domain of disconnection and rejection includes schemas of; abandonment, mistrust/abuse, emotional deprivation, defectiveness/shame, and social isolation/alienation. Therefore, the assimilation of the disconnection and rejection domain emerges from beliefs that one's need for stability, safety, security, love, respect, emotional involvement, acceptance, and empathy will be neglected. Classically, any EMS within the domain of disconnection and

rejection develops from early experiences with a caregiver, within a family, or home environment that is detached, rejecting, unpredictable, or abusive (Young, 1990). Meanwhile, the domain of other-directedness includes disregarding one's own needs to obtain the love and approval from others, maintain interpersonal connection, and avoid conflict with others. A key component of other-directedness is overtly focusing on the desires, feelings, and responses of others. This domain is composed of the EMS of subjugation and self-sacrifice. Typically, each of these schemas results from early experiences within a family or home environment where the wants and emotional needs of the parents, social acceptance, and social status are perceived to be more important than meeting the child's core needs. Thus, children who reside in an environment similar to this are expected to suppress the basic needs of the self in order to gain attention, approval, and love (see Table 1).

Table 1

EMS grouped within the five domains. Each domain is accompanied by a general description of the characteristics of the schemas and early experiences that promote the development of the schemas.

Domain	EMS	General Characteristics of the Domain
Disconnection and rejection	• abandonment/ instability • mistrust/abuse • emotional deprivation • defectiveness/ shame • social isolation/ alienation	• Beliefs that one's needs for stability, safety, security, love, respect, emotional involvement, acceptance, and empathy will not be met. • Develops from early experiences within a family or home environment that is detached, cold, rejecting, solitary, explosive, unpredictable, or abusive.
Impaired autonomy and performance	• dependence/ incompetence • vulnerability to harm/illness • enmeshment/ undeveloped self • failure to achieve	• Beliefs that the self and the environment is incompetent and incapable of independently succeeding, functioning, or surviving. • Develops from early experiences within a family or home environment that is overprotective and diminishes a child's confidence. These experiences emphasize the child's inability to be independent from the family.
Impaired limits	• entitlement/ superiority • insufficient self-control/ self-discipline	• Beliefs that the self is superior to others – unable to establish internal limits, does take on responsibility, and incapable of adhering to long-term goals. • Develops from early experiences within a family or home environment that is permissive, overindulgence, and lacking direction. • Child might experience neglect or a lack of guidance and might not learn how to accept uncomfortable situations.

Domain	EMS	General Characteristics of the Domain
Other-directedness	• Subjugation • self-sacrifice • approval-seeking/ recognition-seeking	• Disregarding one's own needs to obtain the love and approval from others, maintain interpersonal connection, and avoid conflict with others. A key component of other-directedness is overtly focusing on the desires, feelings, and responses of others. • Result from early experiences within a family or home environment where the wants and emotional needs of the parents' or caretakers', social acceptance, and/or status are most important. • The children are expected to suppress important aspects of the self in order to gain attention, approval, and love.
Over vigilance and inhibition	• negativity/ pessimism • emotional inhibition • unrelenting standards/ hyper-critical • punitiveness	• Expectations that one cannot express emotions, impulses, and wants OR expectations that one must adhere to strict rules that guide achievement and behavior. • Typically these restrictions take precedence over enjoyment, individualism, expressiveness, relaxation, close relationships, or health. • Develops from early experiences within a family or home environment that is demanding and often punitive – work, achievement, rules, perfection, and avoiding emotions are more important than happiness, fun, and relaxation. • This establishes an inherent feeling of worry and pessimism directed toward negative outcomes if attention to detail and cautiousness is not a priority.

Young's (1990) work established a strong link between the development of EMS and early experiences that occur within the child and caregiver relationship. Furthermore, each of the specific schemas play a key role in the construction of the self-concept and are continuously activated, augmented, and strengthened (Young, 1990; Young & Brown, 2003; Young et al., 2003). Schemas resist change by encoding only information that is consistent with the schema -- maintaining schema congruency and preventing the same core emotional needs that were neglected during childhood from being fulfilled during adulthood (Rafaeli, Bernstein, & Young, 2011; Schmidt & Joiner, 2004; Young, 1990). Young and Klosko (1993) explain that persisting EMS substantiate negative feelings that infect all facets of an individuals life: developing intimate relationships with friends, family members, and romantic partners; being successful in the workplace or the classroom; enjoying other activities; feeling safe and secure in the world.

EMS can become dysfunctional, invasive, and can unconsciously trigger memories, emotions, cognitions, and sensations. Despite their undesirable characteristics, EMS continue to act as an organizational framework for thoughts, perceptions, feelings, and beliefs about one's self in relation to others and the environment (Young, 1990; Young et al., 2003). Individuals who endorse EMS continue to live a life-style that continues to strengthen and maintain the presence of the schemas into adulthood. Therefore, activation of EMS is almost constant. Due to the nature and dysfunction of these cognitive schemas individuals

typically suffer from greater psychological distress (e.g., negative mood state, anxiety, and depression; Schmidt & Joiner, 2004). Furthermore, early traumatic experiences, especially childhood emotional maltreatment, childhood neglect, and childhood physical abuse, may disrupt the attachment relationship between the child and caregiver. Thus, these experiences may promote the development of EMS and ultimately lead to an increase in psychological distress and dysfunctional interpersonal relationships in later adolescence and adulthood (e.g., Ford, Clark, & Stansfeld, 2011; Roemmele & Messman-Moore, 2011; Wright, Crawford, & Del Castillo, 2009).

However, the relationship between cognitive schemas, stress, mood, and interpersonal functioning has not been fully explored. Clearly, childhood maltreatment promotes the development of negative cognitive schemas of the self and further predicts negative psychological adjustment in early adulthood (Wright, Crawford, & Del Castillo, 2009). Young and Klosko (1993) outline the influence of EMS on one's dependence on unsatisfying and destructive interpersonal relationships, however, research has yet to distinguish a clear relationship between EMS and later interpersonal conflict strategies. Messman-Moore and Coates (2007) suggest additional research should include a number of developmental factors and psychological adjustment measures in order to determine the schemas and traumatic events have on later interpersonal functioning. Thus, the goal of the current study is to explore the relationship between cognitive schemas, stress, and interpersonal conflict strategies. In

addition, we expect to support previous literature and observe an association between stress, cognitive schemas, and negative mood states.

Impact of Historical Stressors & Trauma

One of the four early life experiences that spark the development of EMS are those that threaten, harm, and challenge the safety of a child. For this reason, early traumatic experiences can activate schemas of anxiety, hopelessness, hyper-vigilance, and mistrust (Rafaeli, Bernstein, & Young, 2011; Young et al., 2003). For the purposes of the current study, trauma refers to negative and/or stressful experiences that elicit an emotional response, as well as the emotional response that endures once the event or experience has ended (Briere & Scott, 2006). More specifically, the Diagnostic and Statistical Manual of Mental Disorders, 4th edition, Text Revision (DSM-IV-TR; American Psychiatric Association [APA], 2000) defines trauma as:

> A direct personal experience of an event that involves actual or threatened death, serious injury, or other threat to one's physical integrity; or witnessing and event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate. The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganized or agitated behavior). (p. 473)

Traumatic experiences are of specific interest in the current investigation and, for

the purposes of this study, traumatic experiences are considered a subset of adverse life events.

Traumatic experiences elicit a variety of emotional, social, and cognitive responses (Briere & Scott, 2006). Individuals with a history of trauma are more likely to exhibit symptoms of depression and anxiety, as well as increased anger and aggression (e.g., Harkness, Lumley, & Truss, 2008; Kessler, 1997; Lazarus 1999; Taft, Resick, Watkins, & Panuzio, 2009; Young, LaMontagne, Dietrich, & Wells, 2012). Foa, Ehlers, Clark, Tolin, and Orsillo (1999) identified a significant relationship between traumatic experiences and negative cognitions about the self, others, and the world. Survivors of these experiences can feel abandoned, helpless, alone, guilty, ashamed, and disconnected. These feelings diminish trust of the self, others, and the world (Herman, 1997). Therefore, post-trauma cognitions and emotions are important to recognize even if they are not pathological in nature.

A significant body of literature focuses on individuals who have experienced trauma and are subsequently diagnosed with Post-traumatic Stress Disorder (PTSD). PTSD is categorized as an anxiety disorder (American Psychiatric Association [APA], 2000). A diagnosis of PTSD can not be made earlier than a month after the traumatic event occurs. Most importantly, not all survivors of trauma suffer from psychological distress, in fact most do not meet the criteria for PTSD diagnosis (Aldwin, 2007; Briere & Scott, 2006; Sutker et al., 1995). Furthermore, the existing body of literature tends to focus on outcomes of

mood disturbances in the aftermath of traumatic stress, but fewer studies have identified the impact that these experiences and the subsequent symptoms have on satisfaction, intimacy, and conflict within interpersonal relationships. Therefore, the current study aims to explore this generous gap in the literature by investigating the impact of post-trauma symptoms on interpersonal functioning, with a focus on conflict strategies.

Stressors

Although adverse life events are overwhelming and highly stressful, many routine events and common interpersonal interactions can also cause stress. However, the appraisal of even minor stressors as a threating or harmful can have debilitating and adverse outcomes, hinder interpersonal functioning, and even diminish physical health (e.g., Gottlieb, 1997; Lazarus, 1999; Wheaton, 1994). Kanner, Coyne, Schaeffer, and Lazarus (1981) labeled these minor, frequently occurring stressors as daily hassles: "…the irritating, frustrating, distressing demands that to some degree characterize everyday transactions with the environment…" (p. 3). Examples of daily hassles include disagreements or conflict with friends, parents, spouses or partners, negative feedback from an instructor or supervisor, and financial difficulties. Furthermore, previous research suggests daily hassles have a greater negative impact on physical and psychological health than traumatic events, catastrophes, or adverse life events, such as natural disasters, interpersonal trauma, and deaths (Kanner, Coyne, Schaefer, & Lazarus, 1981; Lazarus, 1999).

Lazarus and Folkman (1984) proposed a cognitive theory of stress. In the development of the theory Lazarus and Folkman explored the interaction between the environment (or event) and the individual. This interaction is often referred to as appraisal of potential stressors. Appraisal is described as the product of the evaluation of the potential stressor, while appraising refers to the cognitive processes involved in making the evaluation. Importantly, the process of appraisal occurs with and without conscious awareness (Lazarus, 1966). "Appraisals are commonly based on many subtle cues from the environment, what has been learned from previous experience, and a host of personality variables such as goals, situational intentions, and personal resources and liabilities. All this provides a basis for a decision about how to respond." (Lazarus, 1999, p. 81) Personal goals play a vital role when appraising situations and experiences for potential stressors. Potential stressors arise if personal well-being or goals are in danger. Lazarus identifies three primary appraisals of potentially stressful situations, namely harm, threat, and challenge. A harmful situation is one that causes irreversible damage or loss. A threatening situation has the potential to cause irreversible damage or result in a permanent loss, and promotes feelings such as helplessness. A challenging situation is one that taxes an individual's coping resources, yet evokes positive emotions (e.g., excitement, enthusiasm, inspiration) and expectations to overcome the challenge. If a situation harms, threatens, or challenges the fulfillment of a goal, then a stress response occurs and the process of appraisal continues. During secondary

appraisal an individual assesses whether or not they have available coping resources to survive the challenging, threatening, or harmful situation. Appraisal of the situation as a challenge occurs with available coping resources along with confidence to manage the stress while accomplishing the goal. Conversely, the situation is appraised as a threat when resources are inadequate and adaptation to overcome the threat impedes goal attainment. The appraisal of harmful, threatening, and challenging situations is highly dependent on individual values, goals, beliefs of the self and the environment, and personal resources. For example, a final exam in a college calculus class could be appraised by Student A as a threat, because he/she did not study the material, failed the mid-term, and needs a high mark to pass the class. Conversely, Student B could appraise the same final exam as a challenge because he/she has been studying the material for the last month and has always done well on math exams. Therefore, the appraisal of stress is most influenced by the availability of coping resources to overcome a threatening or challenging situation.

Rumination is one of many coping resources that individuals will turn to during experiences of stress. Rumination is the process of consistently and sometimes constantly thinking about an experience or relationship that causes distress (Simonson, Mezulis, & Davis, 2011). As for daily hassles, the focus of rumination could be the experience itself (e.g., replaying the event over and over), continuous re-appraisal of the hassle, or the distress it caused (e.g., hopelessness, ashamed, guilty). Previous research has identified individuals who rumination as

a coping response to stress are more likely to experience higher levels of negative affect (Nolen-Hoeksema, 1991).

Stress and coping research has incorporated the study of daily hassles as a predictor of psychological and physiological outcomes, such as depression or other affective disorders (Kanner, Coyne, Schaeffer, & Lazarus, 1981; Maybery, Neale, Arentz, & Jones-Ellis, 2007). Daily hassles not only have an impact on psychological outcomes, such as depression and negative mood states, but also can highlight tension in close relationships increasing the likelihood of conflict with a spouse, family members, friends, and co-workers (Lazarus, 1999). The current study strives to elucidate the relationship between daily hassles and conflict in interpersonal relationships.

Interpersonal Conflict Strategies

Relationships develop, flourish, and/or end as individuals move through childhood, adolescence, and adulthood – close friendships, romantic relationships, sibling relationships, and many more. Each type of relationship has a significant meaning, emotional attachment, and influence (i.e., Reis & Collins, 2004; Reis & Downey, 1999). As children mature into young adults and form new bonds, they must gain autonomy from parents. Through autonomy, individuals begin to make decisions, take responsibility for those decisions, actions, and behaviors, and develop and maintain interpersonal relationships. At this junction, close friendships become extremely important. Although close friendships begin to develop during childhood, these relationships grow into salient avenues to

navigate the world and define the self into adulthood (Collins, Larsen, Mortensen, Luebker, & Ferreira, 1997). Close friendships foster interdependence, intimacy, and reciprocity. Yet, disagreements often arise. Indeed, Larsen (1995) claims that one disagreement, or conflict, occurs within every six hours of social interaction between close friends. Despite the negative connotation, conflict is one aspect of close friendships that can result in either positive or negative outcomes. Conflict can be threatening to a relationship but, if resolved, the process of conflict management and resolution can strengthen the relationship. In fact, during mid- to late adolescence, friendship dyads display less hostility during conflict and experience a strengthening of the relationship with fewer negative feelings after conflict, compared to parent-child dyads during and after conflict (Laursen, 1993).

Stress and Interpersonal Conflict

According to Briere & Rickards (2007) paternal emotional neglect, maltreatment, or abuse during childhood increases the likelihood of engaging in interpersonal conflicts. Furthermore, Powers et al. (2006) found that a history of trauma and associated symptoms (i.e., depression, anxiety, anger) were predictive of an increased stress response to interpersonal conflict. That is, during a disagreement with a romantic partner, individuals with a history of trauma tend to experience a greater increase in levels of physiological stress (measured using salivary cortisol levels), than individuals who do not experience trauma.

In addition to the direct link between adversity and conflict strategies,

there are important connections between adversity, early maladaptive schemas, and interpersonal conflict strategies and aggression. Crawford and Wright (2007) suggest that survivors of physical child abuse who endorse schemas of mistrust/abuse, subjugation of needs, and self-sacrifice are more likely to engage in abusive interpersonal relationships as adults. Similarly, individuals who have experienced psychological abuse as a child and move into adulthood endorsing the schemas of subjugation of emotions are more likely to reach unmanageable levels of anger that can precipitate aggressive behavior within close relationships. Moreover, individuals who have a history of child abuse and exhibit schemas of insufficient self-control/self-discipline or defectiveness/shame as adults are more likely to manage interpersonal conflict with aggressive responses and behaviors. Therefore, the current investigation will continue the exploration of the relationship between adverse life events, maladaptive schemas, and interpersonal conflict style.

Hypotheses

The current study aims to explore how traumatic and adverse experiences, associated post-trauma symptoms, interpersonal relationship processes, mood state, cognitive processes, and daily stress predict current psychological adjustment and interpersonal functioning. Various studies have identified a relationship between traumatic experience, post-trauma symptoms, and negative mood states (Lumley & Harkness, 2007; Schmidt & Joiner, 2004). In addition, previous literature has suggested that there is an association between post-trauma

symptoms, the endorsement of EMS, and the likelihood of aggressive behavior and engaging in negative conflict strategies (Crawford & Wright, 2007).

The current study expects to contribute to the current body of research by exploring the relationship between previous and concurrent stressful experiences and EMS, while investigating the influence of stress and EMS on interpersonal conflict strategies. Support of this hypothesis would provide greater understanding of the interaction between experiences of stress, past and present, and cognitive schemas and the respective impact on mood and interpersonal functioning.

In line with the previous research, I predict (1) that individuals with a history of trauma, identified by the subsequent post-trauma symptoms, will endorse higher levels of EMS. Building upon these findings, I anticipate (2) that the endorsement of EMS will mediate the relationship between post-trauma symptoms and the proposed outcomes of mood such that the endorsement of EMS will predict an increase in negative affect beyond the influence of post-trauma symptoms.

In addition, I predict (3) that individuals with a history of trauma, identified by the subsequent post-trauma symptoms, will have greater negative appraisal of daily hassles. Appraisal of daily hassles will be defined as the product of the perceived intensity of daily hassles and the perceived impact on positive emotions. Further, I anticipate (4) the endorsement of EMS will mediate the relationship between post-trauma symptoms and the appraisal of daily hassles

such that the endorsement of EMS will predict the negative appraisal of daily hassles beyond the influence of post-trauma symptoms alone or the relationship between post-trauma symptoms and appraisal will only exist through EMS. I expect (5) rumination on daily hassles to moderate the relationship between EMS and negative mood such that the inclusion of rumination into the relationship between EMS and negative mood will result in an increase in negative mood beyond the influence of EMS alone or the inclusion of rumination into the model will minimize or negate the influence of EMS. Finally, for the outcome of conflict style, I predict (6) the appraisal of daily hassles will moderate the relationship between the endorsement of EMS and conflict style such that the endorsement of EMS and the negative appraisal of daily hassles will result in an increase in destructive conflict strategies and minimize or negate the influence of EMS alone.

Method

Participants

The participants in this study included 182 students from a small women's college in the northeast. All of the participants identified as female (one participant identified as male and one identified as other; these two participants were removed from the analyses because the focus of the current investigation is to explore the influence of cognitive schemas and stress on mood and conflict in women's close friendships). The participants were recruited from core courses in the psychology department, namely Introduction to Psychology, Research Methods, and Statistics. Each participant received credit for the above-mentioned courses or, if they preferred, received one entry into a raffle for one of two $25 Amazon gift cards. The mean age of the participants was 19.55 (SD=1.74, range=17-29). Of the participants, 56% identified themselves as European American, while the remaining 44% reported additional racial or ethnic identities (see Table 2).

Table 2

Self reported Racial/Ethnic Identities of Participants

Racial/Ethnic Identity	n
European/European American/White	102
Asian/Asian American	29
African/African American/Black	19
Hispanic/Latin American/Latino/a	12
Indian	6
Eastern Asian/Eastern Asian American	4
Biracial/Multiethnic	4
Caribbean/Caribbean American	3
Middle Eastern	2
Native American/American Indian	1

Materials

The online survey consisted of a demographics questionnaire, as well as measures of cognitive schemas, trauma history, daily hassles, depression, positive and negative mood states, and interpersonal conflict strategies.

The demographics questionnaire was composed of 13-items. The participants were asked questions regarding gender, age, race/ethnicity, religious beliefs, relationship status and various questions about a best friend (see Appendix A).

Young Schema Questionnaire – Short Form (YSQ-SF-3; Young & Brown, 2003) is a 90-item self-report measure that assesses each of the proposed Early Maladaptive Schemas and domains. Each question refers to a belief or expectation regarding the self, others, or the environment. For example, "I worry that people I feel close to will leave me or abandon me," "It is only a matter of time before someone betrays me," "I don't belong; I'm a loner," "I'm unworthy of the love, attention, and respect of others," "Most other people are more capable than I am in areas of work and achievement," "I lack common sense," "I worry about being physically attacked by people," "It is very difficult for my parent(s) and me to keep intimate details from each other without feeling betrayed or guilty," "In relationships, I usually let the other person have the upper hand." The participants were asked to rate each item on a 6-point Likert scale ranging from 1 ("completely untrue of me") to 6 ("describes me perfectly").

For the purposes of the current study, researchers implemented both total

score calculations and sub-scale score calculations. Total scores were calculated by summing all 90 items to generate a possible range of 0-540. High total scores on the measure of EMS reflect greater overall schema dysfunction. The overall mean for the total score was 227.29 (*SD* = 53.73, *min* = 117, *max* = 412) and Crombach alpha was .95. In addition to deriving a total score of EMS, the 15 sub-scale scores, corresponding to the 15 included early maladaptive schemas were calculated by summing responses to the five questions for each sub-scale. The range of possible scores for each schema was 0-30, with higher scores suggesting greater endorsement of that schema. The five domain scores were also calculated by generating a mean from the corresponding items within the appropriate schemas. For example, the domain of disconnection and rejection included items for each of the following schemas; abandonment, mistrust/abuse, emotional deprivation, defectiveness/shame, and social isolation/alienation. The range of possible scores for each domain was 0-30, with higher scores suggesting greater endorsement of that domain (see Appendix B).

Post-Traumatic Stress Diagnostic Scale (PDS; Foa, Cashman, Jaycox, & Perry, 1997) is a 49-item measure designed to assess trauma history, along with the presence and severity of PTSD symptoms according to the DSM-IV criteria for PTSD diagnosis. The scale is divided into four parts. For part 1 the participant was asked to identify the events that they have experienced or witnessed out of a list of 12 traumatic events using a yes/no selection. If the participant did not report experiencing or witnessing any of the 12 traumatic events, then the participant

skipped the remaining three sections. For part 2 the participant was asked to identify and describe in greater detail which of the 12 traumatic events caused the most distress in the last month. For part 3 the participant was asked to assess the frequency that a variety of symptoms had been experienced in the past month. Part 3 consisted of 17 items that the participant rated on a four-point scale (0 = Not at all or only one time, 1= Once a week or less/once in a while, 2 = 2 to 4 times a week/half the time, 3 = 5 or more times a week/almost always). For part 4 the participant was asked if she had experienced an inability to function in nine major areas of life. The DSM-IV criteria for PTSD diagnosis are embedded within each section, but these criteria were not implemented for the current study (see Appendix C).

Negative Event Scale (NES; Maybery, Neale, Arentz, & Jones-Ellis, 2007) was included to identify experiences of daily hassles. The NES was designed to include 40 typical daily hassles that any adult could experience. For the purposes of the current study, only 23 of the 40 daily hassles were selected as relevant to the sample of college students. Items pertained to various types of daily hassles – interpersonal, academic, work/job, and financial. Examples of the daily hassles that are included within interpersonal hassles are "Conflict with friend(s)," "Disagreement (including an argument) with your romantic partner or significant other," "conflict with parents." Examples of daily hassles that are included within financial hassles are "Not enough money for emergencies," "Not enough money for education." Examples of daily hassles that are included within academic

hassles are “Not meeting deadlines or goals in school,” “Use of your skills at school.” Finally, an example of a work/job related hassle is “Disagreement (including argument) with a supervisor.” For each hassle the participant was asked, “How often did this event occur in the PAST MONTH?” (Frequency); “How much of a hassle was this event(s) for you in the PAST MONTH?” (Intensity); “How much of an impact on your positive mood did this event have in the PAST MONTH?” (Emotional impact); “How much did you think about this event in the PAST MONTH?” (Rumination). If the participant responded to the question of frequency with “not at all,” the questions of intensity, emotional impact, and rumination were skipped (see Appendix D).

Beck Depression Inventory - Second Edition (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item measure implemented to identify symptoms of depression in a non-clinical population. Each item refers to various symptoms of depression. Each symptom requires participants to respond by identifying one of the four possible statements. The statements range in severity. An examples of a series of statements is as follows, “I do not feel life a failure;” “I feel I have failed more than the average person;” “As I look back on my life, all I can see is a lot of failures;” or “I feel I am a complete failure as a person”. Participants were asked to choose the response to best describe their feelings over the past week. The total score for the BDI-II was calculated for each participant. The range of possible scores for each item is 0 (none or no change in the past week) to 3 (severe), resulting in a possible total score that ranges from 0 (no symptoms) to 63

(severe symptoms). The mean for the total score on the BDI-II in the current sample (n = 181) was 1.36 (SD = 2.46, min = 0, max = 15) and Crombach alpha was .74. For the purposes of this study it is important to note that Beck, Steer, & Brown (1996) reported the mean score for a sample of 120 college students was 12.55 (sd = 9.93) and results were replicated in additional studies (Steer & Clark, 1997; Storch, Roberti, & Roth, 2004). Depression was dropped from further analyses because the researchers do not have an explanation for the large discrepancy in the overall mean for the current sample (see Appendix E).

Positive and Negative Affect Scale Expanded Form (PANAS-X; Watson & Clark, 1994) is an assessment of mood state. The PANAS-X is an expanded version of the 20-item Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1988), that consists of 60 items that correspond to 11 affects fear, sadness, guilt, hostility, shyness, fatigue, surprise, joviality, self-assurance, attentiveness, and serenity. The participants were asked to rate the extent to which they had experienced each of the different mood states within the past month on a 5-point scale (very slightly or not at all, a little, moderately, quite a bit, very much). For the purposes of this study, only the scores for negative affect were calculated by summing the corresponding ten adjectives. Negative affect (NA) was composed of the following items: afraid, scared, nervous, jittery, irritable, hostile, guilty, ashamed, upset, and distressed. The overall mean for NA for the current sample (n = 182) was 21.75 (SD = 7.62, min = 10, max = 44) and Crombach alpha was .87 (see Appendix F).

Destructive Conflict Scale (DCS; Holmes & Murray, 1997) is a 23-item measure that assesses an individual's ability to deal with problems or conflict in a close relationship. Holmes & Murray (1997) constructed the DCS to identify conflict style in romantic couples. For the purposes of the current study, the DCS was modified to identify conflict style in best friendships. According to Holmes & Murray, (1997) the DCS represents three ways to deal with conflict, namely avoidance, reciprocal cycles of criticism and blame, and constructive engagement. An example of an item that refers to avoiding conflict is, "My best friend and I agree that some issues in our relationship are better left untouched." An example of reciprocal cycles of criticism and blame when dealing with conflict is, "When my best friend and I try to discuss a difficult issue, we sometimes end up criticizing or blaming one another for problems that are not related to the issue at hand." Finally, an example of constructive engagement is, "My best friend and I are able to reach mutually satisfying compromises when we discuss contentious issues in our friendship." Each participant was asked to rate each item on a scale of 1 (not at all true) to 9 (completely true). The DCS was scored using a total score and the items that deal with constructive engagement were reverse scored. Higher scores on the DCS indicate more destructive conflict styles when dealing with problems and disagreements that arise in a specific friendship. The overall mean for NA for the current sample (n = 182) was 63.02 (SD = 21.74, min = 27, max = 135) and Crombach alpha was .86 (see Appendix G).

Procedure

When participants arrived in the lab, the researcher or a research assistant randomly assigned one of six questionnaires. Each questionnaire contained the same measures of cognitive schemas, trauma history and symptoms, daily hassles, depression, positive and negative mood states, and interpersonal conflict strategies, but to control for order effects the measures were counterbalanced, resulting in six conditions (see Table 3 for presented orders). Before beginning the questionnaire each participant agreed to participate after reading and signing the informed consent (see Appendix I). Each questionnaire began with the demographics questions, but the order thereafter varied depending on which one of the six conditions the participant was assigned. Upon completion of the survey each participant was debriefed (See Appendix J), thanked for their time, and received one research credit or entry into a raffle for one of four $25 gift cards.

Table 3

Frequency distribution for the six counterbalanced surveys

Condition	Order of Measures	n
1	ABC	28
2	ACB	31
3	BAC	31
4	BCA	31
5	CAB	32
6	CBA	29

Note: A=Post-traumatic Diagnostic Scale, PTDS Checklist – Civilian version, Negative Life Events Scale; B=Young Schema Questionnaire-Short Form 3; C=Positive and Negative Affect Scale – Expanded Version, Beck Depression Inventory – Second Edition, Destructive Conflict Scale

Results

Analytic Approach

Testing for mediation.

Testing for mediation promotes understanding of the process or mechanism through which the predictor variable (X) influences the outcome variable (Y). X is assumed to have an influence on or predict Y through path *c* (see Figure 1). In figure A, path *c* represents the total influence of X on Y. However, the relationship between X and Y might be mediated by another variable, a mediator (M), where X maintains the relationship with Y through M (see Figure 2). In figure 2, path *c'* represents the direct effect of X on Y. After adding M into the model, if X no longer significantly influences Y, then *c'* would be equal to zero and M would be a complete mediator between X and Y. Alternatively, if M is added into the model and the absolute influence of X on Y is reduced, but still is not equal to zero, then M is a partial mediator between X and Y. In table 3, the four steps to test for mediation are presented (Baron & Kenny, 1986).

The final step in testing for mediation is to test the indirect effect, or the amount of mediation (total effect = direct effect + indirect effect, $c = c' + ab$). The indirect effect can simply be the product of *a* and *b*, but Mackinnon, Lockwood, Hoffman, West, and Sheets (2002) suggested the implementation of the SOBEL test (Sobel, 1982) to further examine *ab*. This test divides *ab* by the standard error of *ab*, the result is considered as a *Z* test. A result that is

statistically significant at $p < .05$ is assumed to be a significant mediator in the model and paths *a* and *b* are independent.

Figure 1. X directly influences Y. Path *c* represents the total effect of X on Y.

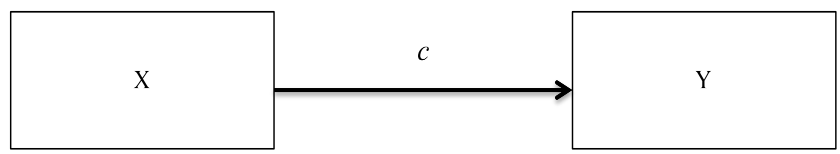

X
c
Y

Figure 2. M mediates the relationship between X and Y. Path *ab* represents the indirect effect of X on Y and path *c'* represents the direct effect of X on Y when controlling for M (Baron & Kenny, 1986).

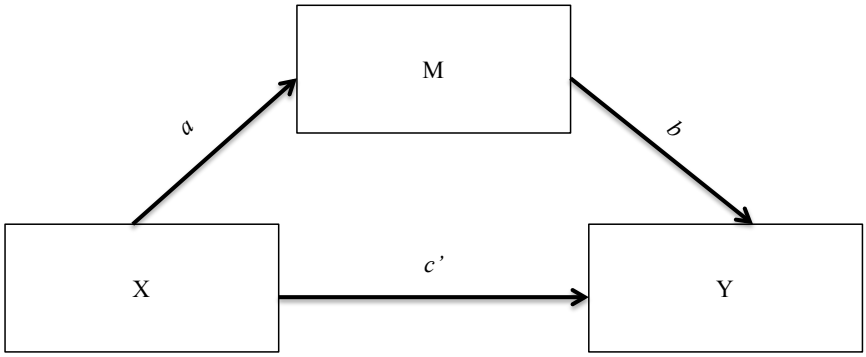

M
a
b
X
c'
Y

Table 4

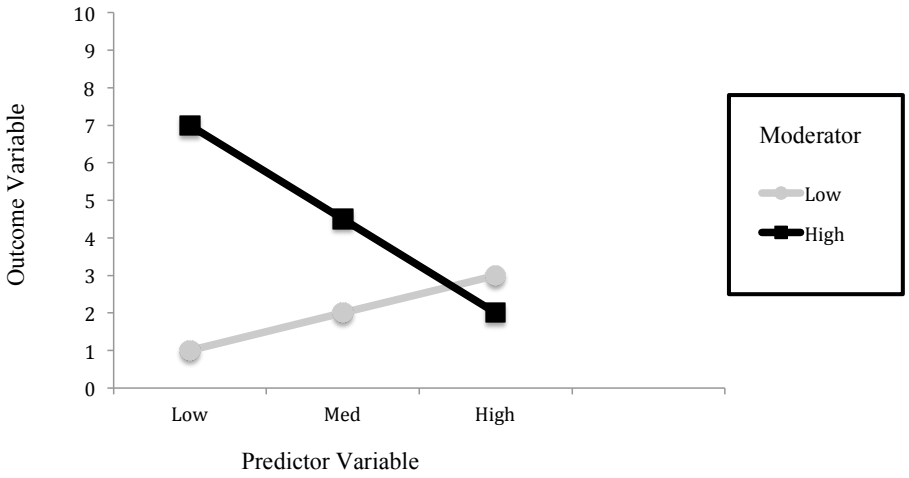
Steps for testing mediation (Baron & Kenny, 1986)

Step	Path	If…	Then…	Conclusion
1	Testing path *c*	X is correlated with Y and X significantly predicts Y	there is an effect of X on Y and there is an opportunity for mediation to occur?	path *c* exists
2	Testing path *a*	X is correlated with M and X significantly predicts M	there is an effect of X on M and X can effect Y through M	path *a* exists
3	Testing path *b*	M significantly predicts Y when controlling for X	there is an effect of M on Y when controlling for X	path *b* exists
4	Testing path *c'*	X no longer significantly predicts Y when controlling for M	M is a complete mediator between X and Y	complete mediation
		X continues to significantly predict Y when controlling for M	M is a partial mediator between X and Y	partial mediation

Testing for moderation.

A moderating variable (M) changes the direction and/or the strength of the relationship between the predictor variable (X) and the outcome variable (Y). Thus, X predicts Y depending on M. To test for moderation using hierarchical multiple regression, the first step is to center X and M around the mean (i.e., $X_{centered} = X - M_x$). After centering the variables, an interaction term must be created by multiplying $X_{centered}$ by $M_{centered}$. The variables and interaction term are then entered into the regression model. In block 1, $X_{centered}$ is entered. In block 2, $M_{centered}$ is entered. In block 3, the interaction term is entered. If the model summary indicates that the interaction term significantly predicts Y, then there is an effect of moderation. To interpret how X predicts Y depending on the level of M, a graph of the interaction was constructed using ModGraph (Jose, 2008). In figure 3, the predictor variable is presented on the X-axis. Although X is represented with three levels (low, medium, high), it is important to note that X is a continuous variable in the mediation model. Similarly, M is also presented as a categorical variable with two levels (low, high), but in the mediation model M is a continuous variable. Finally, the outcome variable is represented on the Y-axis, also as a continuous variable.

Figure 3. An interaction graph to interpret moderation effects.


10
9
8
7
6
5
4
3
2
1
0
Outcome Variable
Low
Med
High
Predictor Variable
Moderator
Low
High

Descriptive Statistics and Correlations

In table 4, the descriptive statistics for the predictor variables, mediating variables, moderating variables, and outcome variables are displayed. It is important to note that depression was dropped from further analyses because the overall mean score for the sample was inconsistent with previous depression scores in non-clinical samples. The correlation matrix for the predictor variables, mediating/moderating variables, and outcome variables are presented in table 5.

Table 5

Descriptive Statistics for predictor and outcome variables

	N	Min.	Max.	M	SD
EMS	181	117.00	412.00	227.1878	53.72293
Post-trauma Symptoms (No Trauma = 0)	182	.00	43.00	6.1429	8.39767
Rumination on DH	181	.00	57.00	16.9724	11.71819
Appraisal of DH	181	.00	2756.00	319.9890	399.73519
Negative Affect	182	10.00	44.00	21.7473	7.62171
Destructive Conflict	182	27.00	135.00	63.0220	21.73826
Depression	181	.00	15.00	1.3591	2.46042

Note: Daily Hassles = DH

Table 6

Correlation Matrix displaying the correlation coefficients for EMS, Post-trauma symptoms, Appraisal of Daily Hassles, Negative Affect, and Destructive Conflict Strategies

	1	2	3	4	5	6
1. EMS	-	.398**	.319**	.355**	.505**	0.142
2. Post-trauma Symptoms	-	-	.365**	.383**	.299**	0.117
3. Rumination on DH	-	-	-	.903**	.416**	0.078
4. Appraisal of DH	-	-	-	-	.449**	0.128
5. Negative Affect	-	-	-	-	-	0.033
6. Destructive Conflict	-	-	-	-	-	-

** Correlation is significant at the 0.01 level (2-tailed).
Note: Daily Hassles = DH

Post-Trauma Symptoms and Maladaptive Schemas

A one-way ANOVA was conducted to test the hypothesis that individuals with a history of trauma who report post-trauma symptoms will endorse higher levels of EMS. First, post-trauma symptoms (PDS Part 3) were scored according to the specifications in the DSM-IV for PTSD diagnosis. It is important to note that only scores for post-trauma symptoms were used to identify the extent to which an individual had experienced post-trauma symptoms within the last month; thus, PTSD diagnosis was not included in the analyses. To calculate symptom severity, scores were calculated for each of the three symptoms – re-experiencing, avoidance, and arousal. For each symptom, scores that met symptom criteria for PTSD diagnosis were re-scored as 2 (reporting at least1 of 5 re-experiencing symptoms, at least 3 of 7 avoidance symptoms, and at least 2 of 5 arousal symptoms), scores that did not meet criteria for PTSD were re-scored as 1, and cases that did not report having experienced a traumatic event were coded as 0. The resulting codes for each sub-scale were then added together to create five levels of PTSD symptoms: no symptoms due to no trauma history reported (n = 52); reported experiencing at least one traumatic event, but were sub-threshold across all three symptoms (n = 48); reported experiencing at least one traumatic event and met PTSD symptom criteria for any 1 of the 3 sub-scales (n = 29); reported experiencing at least one traumatic event and met PTSD symptom criteria for any 2 of the 3 sub-scales (n = 17); reported experiencing at least one traumatic event and met PTSD symptom criteria for all three sub-scales (n = 35).

The ANOVA revealed that the endorsement of EMS was significantly more dysfunctional across the five levels of post-trauma symptoms, $F(4, 176) = 7.691$, $p < .001$, $\eta^2 = .149$. Post-hoc tests revealed that individuals with a trauma history and who reported symptoms of re-experiencing, avoidance, and arousal endorsed significantly higher levels of EMS ($M = 265.57$), than the no trauma ($M = 224.27$), trauma history with no symptoms ($M = 208.33$), and trauma history reporting only one of the three symptoms ($M = 211.90$) (see Table 6 and Figure 4).

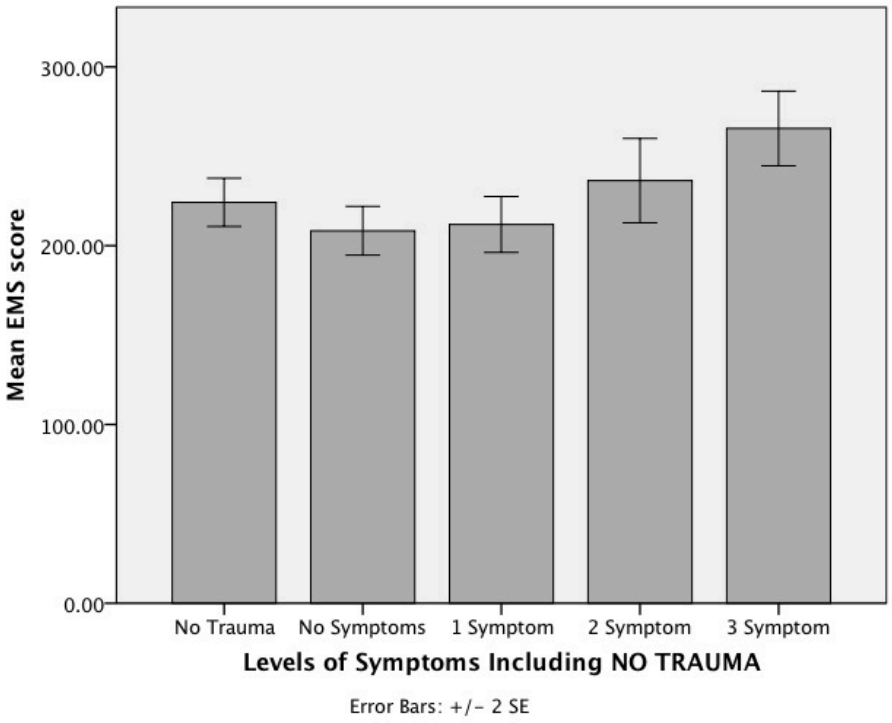
Table 7

Means and standard deviations of endorsement of EMS for symptom severity.

	No Trauma History	No PTSD Criteria	Any 1 PTSD Criteria	Any 2 PTSD Criteria	All 3 PTSD Criteria
Mean	224.27	208.33	211.90	236.42	265.57
(SD)	(48.67)	(47.14)	(42.08)	(48.70)	(61.70)
n	52	48	29	17	35

Note: Standard deviations are presented in parentheses below means.

Figure 4. Displays the differences in the levels of EMS across groups with no trauma history, trauma history and no symptoms, trauma history and one symptom, trauma history and 2 symptoms, and trauma history and symptoms of re-experiencing, avoidance, and arousal.

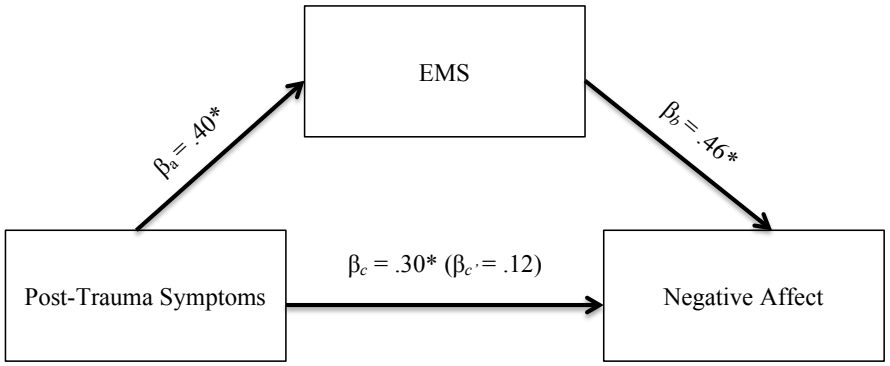

300.00
200.00
100.00
0.00
Mean EMS score
No Trauma
No Symptoms
1 Symptom
2 Symptom
3 Symptom
Levels of Symptoms Including NO TRAUMA
Error Bars: +/- 2 SE

Test of Mediation of Post-Trauma Symptoms and Negative Affect

To test the hypothesis that EMS would mediate the relationship between the presence of post-trauma symptoms and current negative mood state, a regression analysis and test for mediation (Baron & Kenny, 1986) was conducted. In step 1 of the mediation model, the mediator was excluded and post-trauma symptoms significantly predicted negative affect, $b = 0.271$, $se = 0.065$, $t(181) = 4.203$, $p < .001$. Post-trauma symptoms accounted for a significant proportion of the variance in negative affect, $R^2 = .089$, $F(1, 181) = 17.669$, $p < .001$. In step 2, post-trauma symptoms significantly predicted the mediator, EMS, $b = 2.546$, $se = 0.438$, $t(181) = 5.813$, $p < .001$. Post-trauma symptoms accounted for a significant proportion of the variance in EMS, $R^2 = .159$, $F(1, 180) = 33.789$, $p < .001$. In step 3, to test for mediation, EMS, the mediator, significantly predicted negative affect, while controlling for the contribution of post-trauma symptoms, $b = 0.065$, $se = 0.010$, $t(181) = 6.556$, $p < .001$. EMS accounted for a significant proportion of the variance in negative affect, when the contribution of post-trauma symptoms were controlled for, $R^2 = .267$, $F(1, 180) = 32.429$, $p <. 001$. Step 4 of the mediation analyses revealed that, controlling for the mediator (EMS), post-trauma symptoms continued to significantly predict negative affect, $b = 0.107$, $se = 0.064$, $t(180) = 1.677$, $p = .095$. Due to the significant relationship between the mediator and negative affect when controlling for post-trauma symptoms, a Sobel test (Baron & Kenny, 1986; Preacher & Hayes, 2004) was conducted ($z = 4.32$, $p < .001$) and confirmed that EMS were significantly contributing to the mediation

model. Furthermore, the non-significant relationship between post-trauma symptoms and negative affect while controlling for the mediator, suggests that the endorsement of EMS completely mediated the relationship between the presence of trauma symptoms and current negative mood state (see Figure 5).

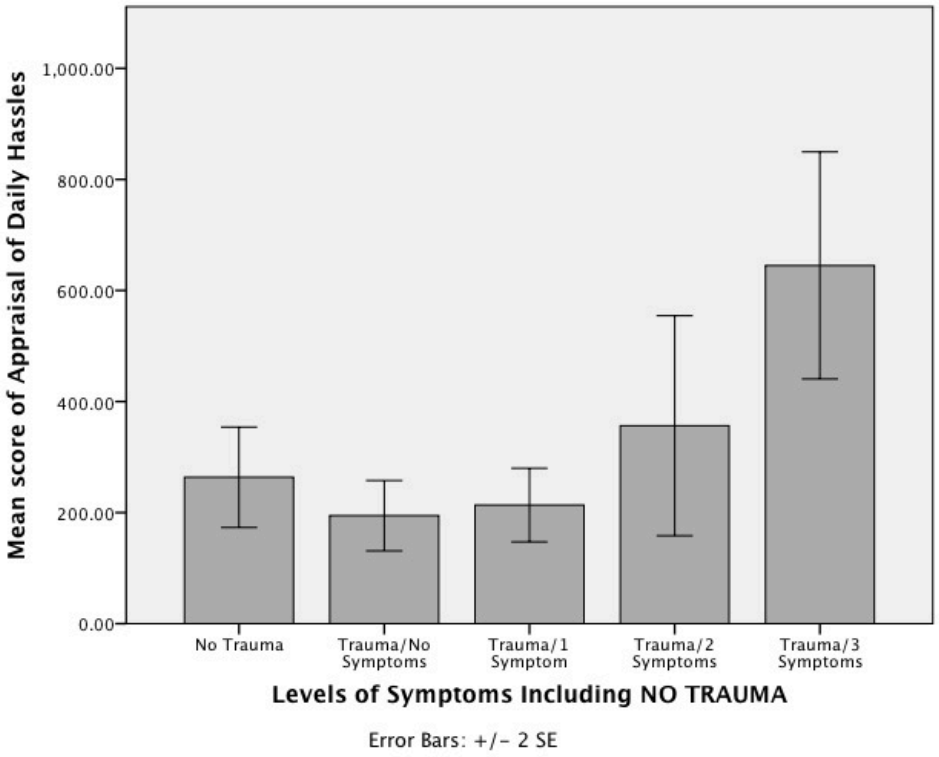
Figure 5. EMS completely mediate the relationship between post-trauma symptoms and negative affect (Note: $p < .001$*).


EMS
$\beta_a = .40^*$
$\beta_b = .46^*$
Post-Trauma Symptoms
$\beta_c = .30^*$ ($\beta_{c'} = .12$)
Negative Affect

Post-Trauma Symptoms and Appraisal of Daily Hassles

To test the hypothesis that individuals with a history of trauma, identified by the subsequent post-trauma symptoms, will have greater negative appraisal of daily hassles a one-way ANOVA was conducted. The ANOVA revealed that the appraisal of daily hassles was significantly different across the five levels of post-trauma symptoms, $F(4, 176) = 9.175$, $p < .001$, $\eta^2 = .173$. Post-hoc tests demonstrated that the group that met PTSD criteria for all sub-scales, re-experiencing, avoidance, and arousal symptoms, reported daily hassles to have a greater negative impact than all groups. Post hoc tests (Fisher's LSD) revealed that participants who met all three of the PTSD criteria (M = 645.06, SD = 604.41) appraised daily hassles more negatively than those who had any two of the PTSD criteria ($M = 356.35$, $SD = 408.23$, $p < .001$), any one of the PTSD criteria ($M = 213.64$, $SD = 174.95$, $p < .001$), no PTSD criteria ($M = 194.48$, $SD = 219.05$, $p < .001$), or no reported history of trauma ($M = 263.51$, $SD = 329.07$, $p < .01$). None of the other differences in levels of trauma symptoms were found to significantly affect the appraisal of daily hassles (see Figure 6).

Figure 6. Displayed are the mean scores for Appraisal of Daily Hassles across the groups of no trauma history, trauma history without symptoms, trauma history reporting one symptom, trauma history reporting two symptoms, and trauma history reporting three symptoms.


Mean score of Appraisal of Daily Hassles
1,000.00
800.00
600.00
400.00
200.00
0.00
No Trauma
Trauma/No Symptoms
Trauma/1 Symptom
Trauma/2 Symptoms
Trauma/3 Symptoms
Levels of Symptoms Including NO TRAUMA
Error Bars: +/- 2 SE

Test of Mediation of Post-Trauma Symptoms and Appraisal of Daily Hassles

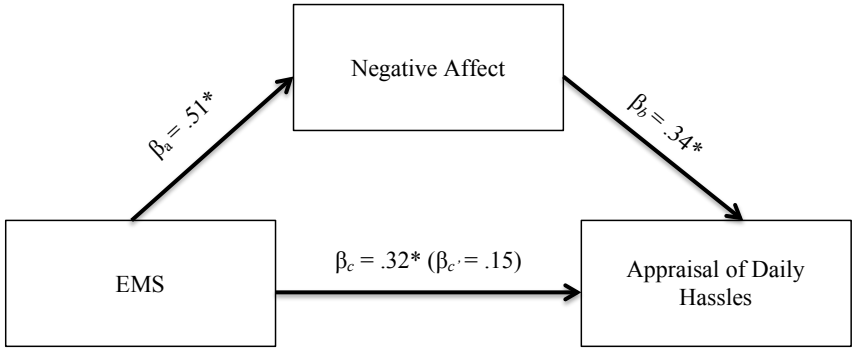
To test the hypothesis that the endorsement of EMS would mediate the relationship between the presence of post-trauma symptoms and the appraisal of daily hassles, a regression analysis and test for mediation was conducted. In step 1 of the mediation model, the mediator was excluded and post-trauma symptoms significantly predicted the appraisal of daily hassles, $b = 19.593$, $se = 3.933$, $t(127) = 4.982$, $p < .001$. Post-trauma symptoms also accounted for a significant proportion of the variance in the appraisal of daily hassles, $R^2 = .166$, $F(1, 127) = 24.820$, $p < .001$. In step 2, post-trauma symptoms significantly predicted the mediator, EMS, $b = 3.098$, $se = .488$, $t(127) = 6.348$, $p < .001$. Additionally, post-trauma symptoms accounted for a significant proportion of the variance in EMS, $R^2 = .241$, $F(1, 128) = 40.069$, $p < .001$. In step 3, to test for mediation, EMS, the mediator, did not significantly predicted the appraisal of daily hassles, while controlling for the contribution of post-trauma symptoms, $b = 1.370$, $se = 0.713$, $t(127) = 1.921$, $p = .0.570$. Therefore, the test for mediation was not continued due to the non-significant relationship between the mediator (EMS) and the criterion (appraisal of daily hassles) when controlling for the contribution of the predictor (post-trauma symptoms).

Test of Mediation of EMS and Appraisal of Daily Hassles

To test the hypothesis that negative affect would mediate the relationship between the endorsement of EMS and the appraisal of daily hassles, a regression analysis and test for mediation was conducted. In step 1 of the mediation model,

the mediator was excluded and the EMS significantly predicted appraisal of daily hassles, $b = 2.391$, $se = 0.5315$, $t(180) = 4.498$, $p < .001$. EMS also accounted for a significant proportion of the variance in appraisal of daily hassles, $R^2 = .102$, $F(1, 179) = 20.233$, $p < .001$. In step 2, EMS significantly predicted the mediator, negative affect, $b = 0.072$, $se = 0.0093$, $t(180) = 7.837$, $p < .001$. In addition, EMS accounted for a significant proportion of the variance in negative affect, $R^2 = .255$, $F(1, 180) = 61.424$, $p < .001$. In step 3, to test for mediation, negative affect, the mediator, significantly predicted appraisal of daily hassles, while controlling for the contribution of EMS, $b = 17.969$, $se = 4.0938$, $t(180) = 4.3894$, $p < .001$. Negative affect also accounted for a significant proportion of the variance in appraisal of daily hassles, when the contribution of EMS is controlled for, $R^2 = .173$, $F(1, 180) = 37.377$, $p < .001$. Step 4 of the mediation analyses revealed that, controlling for the mediator (negative affect), EMS did not significantly predict appraisal of daily hassles, $b = 1.103$, $se = 0.585$, $t(180) = 1.886$, $p = .061$. Due to the significant relationship between the mediator and appraisal of daily hassles when controlling for EMS, a Sobel test was conducted ($z = 3.7932$, $p < .001$) and confirmed that the mediator was indeed significantly contributing to the mediation model. Additionally, the non-significant relationship between EMS and appraisal of daily hassles while controlling for the mediator, suggests that negative affect serves as a complete mediator in the relationship between the endorsement of EMS and the appraisal of daily hassles (see Figure 7).

Figure 7. Negative affect completely mediates the relationship between EMS and the appraisal of daily hassles (Note: $p < .05$*, $p < .01$**, $p < .001$***).


Negative Affect
$\beta_a = .51^*$
$\beta_b = .34^*$
EMS
$\beta_c = .32^*$ ($\beta_{c'} = .15$)
Appraisal of Daily Hassles

Test of Mediation of Appraisal of Daily Hassles and Destructive Conflict Strategies

To test the hypothesis that rumination on daily hassles would mediate the relationship between the appraisal of daily hassles and destructive conflict strategies, a regression analysis and test for mediation would have been conducted; however, the relationship between the appraisal of daily hassles and conflict strategies was not statistically significant ($r = .078$, $p = .148$), thus violating the first assumption of mediation model. No further analyses were conducted.

Test of Moderation of EMS and Negative Affect

To test the hypothesis that rumination on daily hassles would moderate the relationship between the endorsement of EMS and negative affect, a regression analysis to test for moderation was conducted. The score for rumination on daily hassles significantly moderated the relationship between the predictor (EMS) and the criterion (negative affect) variables, $R^2 = .353$, $F(1, 176) = 32.017$, $p < .001$ (see Table 7). To interpret the interaction between maladaptive schemas and rumination an interaction graph was constructed using ModGraph (Jose, 2008). Negative mood state was less impacted by rumination when EMS scores were lower. However, higher scores of EMS and increased rumination on daily hassles increased negative affect (see Figure 8).

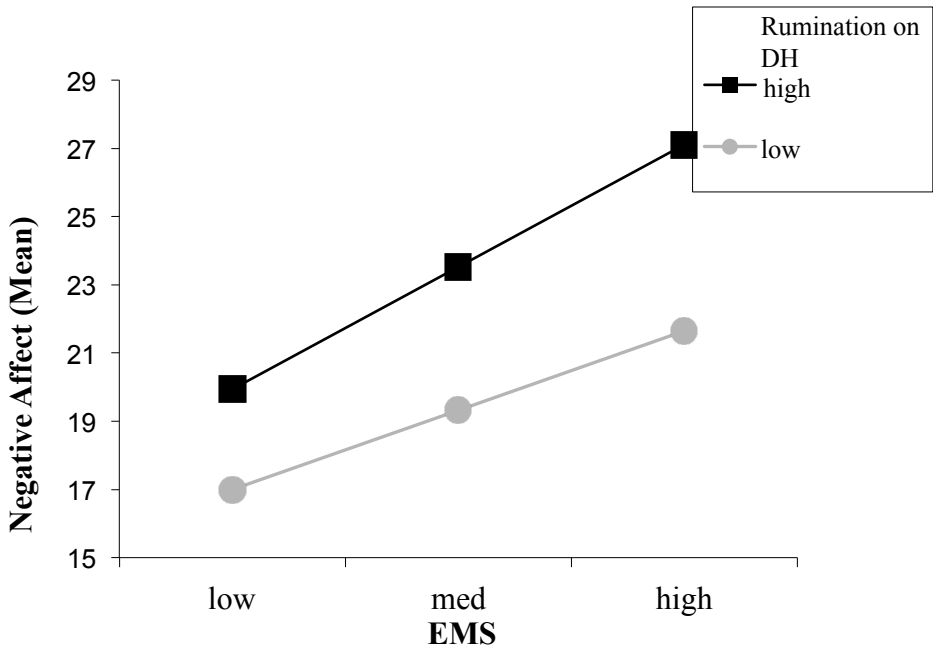
Table 8

Summary of Moderation Model for EMS and Rumination on Negative Affect (N = 180)

	B	*SE B*	*t*	ΔR^2
Step 1				
EMS	.072	.009	7.732**	.251
Step 2				
EMS	.056	.009	5.956**	
Rumination	.205	.043	4.792**	.086
Step 3				
EMS	.055	.009	5.935**	
Rumination	.179	.044	4.070**	
EMS X Rumination	.001	.001	2.066*	.016

Notes: *$p < .05$ **$p <. 01$.

Figure 8. A significant interaction between EMS and Rumination on Daily Hassles on Negative Affect (N=180).


Rumination on DH
high
low
29
27
25
23
21
19
17
15
Negative Affect (Mean)
low
med
high
EMS

Moderation of EMS and Destructive Conflict Strategies

To test the hypothesis that appraisal of daily hassles would moderate the relationship between the endorsement of EMS and destructive conflict strategies a regression analysis to test for moderation was conducted. The score for appraisal of daily hassles significantly moderates the relationship between the predictor (YSQ total score) and the criterion (destructive conflict scale score) variable, R^2 = .071, F (1, 176) = 4.468, p = .005 (see Table 8). To interpret the interaction between maladaptive schemas and rumination an interaction graph was constructed using ModGraph (Jose, 2008). Destructive conflict strategies were influenced less by the negative appraisal of daily hassles in those who endorse more dysfunctional schemas (see Figure 9).

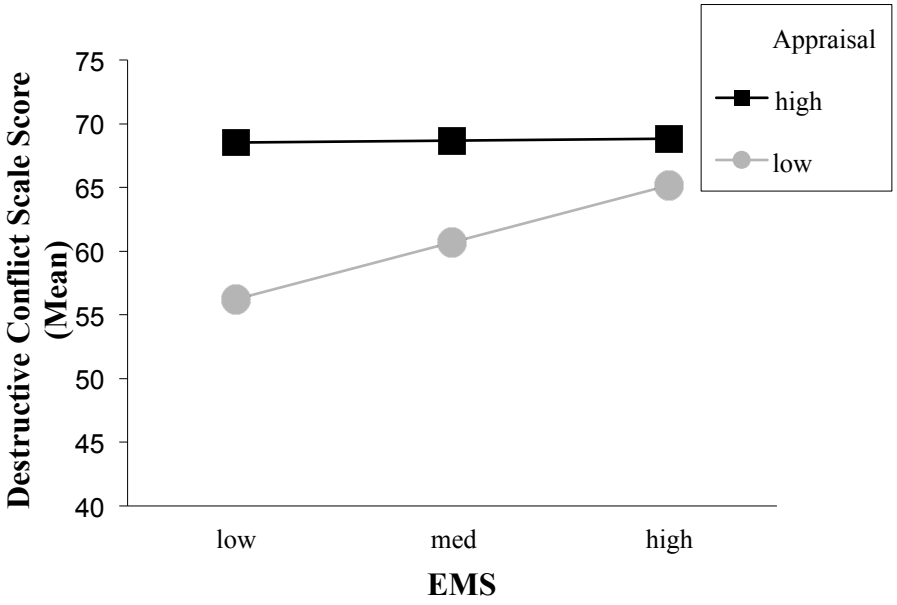
Table 9

Summary of Moderation Model for EMS and Appraisal of daily hassles on Destructive Conflict Strategies (N = 180)

	B	*SE B*	*t*	ΔR^2
Step 1				
EMS	.053	.03	1.768	.017
Step 2				
EMS	.047	.032	1.482	
Appraisal of Daily Hassles	.003	.004	.596	.002
Step 3				
EMS	.043	.031	.169	
Appraisal of Daily Hassles	.010	.005	2.067*	
EMS X Appraisal of Daily Hassles	.0001	.0001	- 3.125**	.052

Notes: *$p < .05$ **$p <. 01$.

Figure 9. A significant interaction between EMS and Appraisal of Daily Hassles on Destructive Conflict Strategies (N=180).


Appraisal
high
low
Destructive Conflict Scale Score (Mean)
75
70
65
60
55
50
45
40
low
med
high
EMS

DISCUSSION

Taken together, these findings suggest that experiences and relationships across a lifespan influence the development, maintenance, and activation of Early Maladaptive Schemas. These schemas lie at the core of an individual's thoughts, beliefs, expectations, and emotions, which inevitably trigger dysfunctional behaviors and relationships. The current findings identify higher levels of EMS endorsement when there is a history of trauma and current reporting of post-trauma symptoms. This finding is consistent with Young's Schema Theory that traumatic experiences contribute to development of EMS (i.e., Young, 1990; Young, 1999; Young & Klosko, 1993); however, traumatic experiences are only one contributing factor in the development of EMS. Furthermore, EMS promote an increase in negative mood and negative appraisal of daily hassles beyond history and post-symptomology of trauma. Additionally, as EMS interact with consistent negative appraisal of daily hassles an increase of destructive conflict strategies is more likely to occur.

Post-Trauma Symptoms and EMS

The results from the ANOVA supported the hypothesis: individuals with a history of trauma, who report post-traumatic symptoms, endorsed more dysfunctional EMS such that individuals who met PTSD criteria for a least two of re-experiencing, avoidance, and arousal symptoms reported significantly more dysfunctional EMS. Although, these findings suggest that those who suffer from a greater number of post-trauma symptoms are more likely to endorse higher

levels of EMS. However, those who do not have a history of trauma also report endorsing similar levels of EMS. Not all trauma survivors consequently experience symptoms of re-experiencing, avoidance, and arousal (Sutker, Davis, Uddo, & Ditta, 1995). Additional factors such as early experiences of adversity, pre-trauma expectations and beliefs, and various physiological and psychological traits interact with the traumatic experience to aid in the development of post-trauma psychopathology (Pole, 2007; Sutker et al., 1995). Furthermore, experiencing a traumatic event is not the only precursor to the endorsement of EMS; an individual's temperament, traumatic experiences within a destructive home environment during childhood, and unmet needs in childhood that remain unmet into adulthood, are the contributing factors to the endorsement of EMS (Young & Klosko, 1993). Later experiences of trauma are likely to reinforce EMS (Schmidt & Joiner, 2004). It is likely that there are additional factors, that could be unrelated to experiences of trauma, contributing to the endorsement of EMS.

Post Trauma Symptoms and Negative Affect Mediated by EMS

Post-trauma symptoms significantly predicted negative affect such that negative affect increased in the presence of trauma symptoms. However, after adding EMS into the model the strength of the relationship between post-trauma symptoms and negative affect reduced suggesting that the relationship between trauma symptoms and negative affect may be more appropriately examined through EMS. Given the potential physiological and psychological symptoms of

distress (i.e., re-experiencing, avoidance, and arousal symptoms) that manifest, and continue to exist long after a traumatic experience occurs, psychological research has attempted to identify the various ways in which these symptoms influence depression, anxiety, and negative affect (Briere & Scott, 2004; Davidson & Foa, 1993; Foa et al, 1999; Herman, 1992). Individuals who endorse higher levels of maladaptive schemas are more likely to experience increased negative mood states (Schmidt & Joiner, 2004). However, the current findings suggest a model wherein negative mood can emerge through traumatic symptoms both directly and indirectly through EMS. Previous research has indicated that merely experiencing a traumatic or adverse event does not directly lead to psychological distress (Briere & Scott, 2004; Sutker et al., 1995). Rather, the experience of trauma and resulting symptoms of distress activate and reinforce the existing EMS; thus resulting in a more pronounced negative perspective of one's self, others, and the world (Beck, 1967; Young, 1990). The negative thoughts, beliefs, feelings, and expectations, for example, the world is unsafe and no one can be trusted, are the result of the activation of an individuals existing EMS by a traumatic experience and the subsequent post-trauma symptoms. The trauma and subsequent symptoms, along with the activated schemas increase negative affect. Together these findings suggest that it is likely that EMS are endorsed by individuals before a traumatic experience. In the aftermath of trauma, the experience and the resulting symptoms reinforce the existing EMS. Thus, EMS should be considered as a critical framework for the perception and expectations

of one's self, others, and the environment when assessing negative mood states, especially when combined with a traumatic experience and subsequent symptoms of distress.

Post-Trauma Symptoms and Appraisal of Daily Hassles

Individuals with a trauma history who reported experiencing post-trauma symptoms of re-experiencing, avoidance, and arousal, appraised daily hassles to be significantly more negative than individuals without a history of trauma and those who have a trauma history and reported experiencing fewer post-trauma symptoms. Lazarus and Folkman (1984) suggest cognitive appraisal of stress occurs in two phases – primary and secondary appraisal. During the process of primary appraisal, an individual assesses the extent to which the stressor, such as a daily hassle, is harmful, threatening, or challenging. If the daily hassle presents a potential threat to the individual's goals or beliefs, then an evaluation of the availability of coping resources will occur during secondary appraisal. In light of Lazarus and colleagues cognitive appraisal theory, an individual who is experiencing severe post-trauma symptoms may be continuously diminishing their available coping resources. For example, an individual who is experiencing post-trauma symptoms such as uncontrollable nightmares, intense fears of harm or death, and feeling distant and cut off from loved ones, delegates all available coping resources toward managing these symptoms. Thus, he/she is more likely to appraise a daily hassle such as negative feedback from an instructor, as a greater threat than an individual who does not have the added burden of managing

severe post-trauma symptoms.

In the proposed mediation model, EMS did not significantly predict the appraisal of daily hassles when controlling for contribution of post-trauma symptoms. Therefore, mediation did not occur. Previous research has identified EMS as cognitive processes easily activated by stressful or traumatic experiences, thus creating a persistent state of heightened stress (Schmidt & Joiner, 2004). Yet, those who suffer from post-trauma symptoms will be more likely to negatively appraise daily hassles due to the impact of these symptoms on the availability of coping resources. Schemas drop out of the relationship between post-trauma symptoms and negative appraisal of daily hassles because schemas do not uniquely contribute to the model. Although the relationship between post-trauma symptoms and the appraisal of daily hassles does not involve EMS through an indirect pathway, further analyses should explore the potential interaction between EMS and post-trauma symptoms when predicting the appraisal of daily hassles.

EMS and Appraisal of Daily Hassles Mediated by Negative Affect

The endorsement of maladaptive schemas significantly predicted the appraisal of daily hassles such that daily hassles were appraised to be more negative in the presence of higher levels of EMS. However, after adding negative affect into the model, EMS no longer significantly predicted the appraisal of daily hassles. The resulting indirect relationship suggests that maladaptive schemas only predict the appraisal of daily hassles through negative affect. Young's

schema theory states that early maladaptive schemas are unconditional cognitive processes that will transform novel information in order to maintain schema congruency (Young, 1999). Therefore, existing schemas can transform routine daily hassles into unmanageable situations. Imagine a scenario where an individual who has developed the schema of incompetence and dependence is walking home from the grocery store. When he/she is two blocks from home, the bottom of the grocery bag rips open and all of the groceries scatter onto the ground. Luckily, a helpful neighbor stops to help pick up the groceries. The seemingly kind act of the neighbor will actually activate the incompetence and dependence schema, which will perpetuate thoughts of inadequacy and elicit feelings of helplessness in the individual. What one, who does not share the same EMS, might appraise as a minor inconvenience or an added challenge to the walk home, the individual with an existing incompetence and dependence schema perceives the inconvenience as a threat to his/her self-efficacy.

Additionally, Lazarus (1999) explains that there is a link between emotions and individual difference variables such as personal resources, values, morals, goals, social and environmental cues, and personal expectations and beliefs (i.e., maladaptive schemas). These individual difference variables, combined with various external stimuli promote each instance of the appraisal of stress. Maladaptive schemas are associated with negative affect or emotions. This association drives the negative appraisal of daily hassles, which further reinforces the schema. For example, a student who endorses the EMS of

defectiveness/shame, thus believing that he/she is unwanted, unlovable, and inferior. These beliefs generate feelings of shame and hopelessness. Therefore, if this student receives a poor grade on a final exam, he/she might appraise the situation to be threatening because the exam grade is a large portion of the final grade. Yet, this situation is beyond his/her available coping resources due to the combined influence of the schema and the negative feelings of hopelessness and shame that reinforce the beliefs.

EMS and Rumination on Negative Affect

The moderation model identifies a significant relationship between EMS and negative affect with rumination as a moderating variable. The interaction between EMS and rumination when added into the model increased the strength of the relationship between EMS and negative affect. The endorsement of EMS and the amount one ruminates on stressful events combine to significantly predict negative affect. Rumination on daily hassles occurs when one is consistently thinking about certain stressful daily activities. Previous research suggests that a high level of rumination can negatively influence mood (Garnefski & Kraaij, 2006; Nolen-Hoeksema, 1991). In addition, maladaptive schemas promote an increase in negative affect (Young, 1999). Thus, the current findings suggest that rumination on daily hassles has less of an effect on negative affect in those who minimally endorse EMS. However, as schemas become more dysfunctional, an increase in rumination on daily hassles seems to have a greater effect on negative affect (see Figure 7). Thus, individuals who endorse a greater number of

dysfunctional schemas *and* ruminate on daily hassles are more likely to report feelings of sadness, guilt, shame, and irritability.

EMS and Appraisal of Daily Hassles on Destructive Conflict Strategies

The current findings expose an interaction between maladaptive schemas and appraisal of daily hassles as a valuable predictor of destructive conflict strategies. The moderation model suggests that destructive conflict strategies are influenced less by the appraisal of daily hassles in those who endorse more dysfunctional schemas. However, as schemas become less dysfunctional and daily hassles are appraised to be more threatening, there is a greater likelihood for an individual to implement destructive strategies during conflict. Previous research supports these findings. Individuals who endorse higher levels of EMS tend to engage in unhealthy relationships (Young & Klosko, 1993). Schemas of emotional inhibition, insufficient self-control, and entitlement increase the likelihood of an individual becoming angry, aggressive, or even abusive during a disagreement or argument (Crawford & Wright, 2007; Young, 1999). Furthermore, individuals with higher levels of EMS consistently appraise most daily hassles, routine and unexpected alike, as threatening, but the same individuals are also likely to be under constant stress, regardless of the occurrence of daily hassles because of the endorsement of EMS. In addition, individuals with higher levels of EMS seek interpersonal relationships that are typically dysfunctional (Young and Klosko, 1993) and likely to promote destructive conflict strategies. Conversely, people who are lower in EMS are more

influenced by daily hassles in terms of conflict strategies. Daily stress will differentially affect their appraisal and subsequently provoke more destructive conflict strategies in their interpersonal relationships when daily hassles are appraised to be more threatening. Similarly, previous research suggests that the appraisal of daily stress as harmful or threatening can adversely influence interpersonal relationships such as an increase in situations of conflict within close relationships (Lazarus, 1999). Thus, individuals who endorse less maladaptive schemas *and* appraise daily hassles as a greater threat are more likely to practice more destructive conflict strategies.

Conclusions

The current study aimed to identify a relationship between previous and concurrent stressful experiences (trauma history and current daily hassles) and maladaptive schemas, while further predicting the influence of stress and schemas on interpersonal conflict strategies and negative mood states. Unique relationships between stressful experiences, maladaptive schemas, negative mood, and conflict strategies were revealed. From these findings, a potentially compelling overall model emerges. Consistent with Young's Schema Theory, EMS are found as the driving force behind negative mood states and interpersonal functioning. These life long, self-perpetuating, potentially dysfunctional, cognitive schemas make up one's core beliefs. EMS process information from a life-time of experiences and relationships (Young, 1999). To maintain schema congruency information is altered to match the existing framework. Experiences of trauma and the subsequent symptoms of distress heighten levels of negative affect through maladaptive schemas. Negative affect is also influenced by the interaction between schemas and one's tendency to ruminate on current daily hassles. Therefore, stress, extreme or daily, works to activate and reinforce the EMS and elicit negative mood states.

Furthermore, when schemas are combined with negative affect, an individual is more likely to appraise daily hassles to be more threatening because there are inadequate coping resources available to manage the stress of daily life. The appraisal of daily hassles as threatening interacts with EMS, resulting in a

negative influence on interpersonal relationships; ultimately decreasing an individual's ability to constructively strategize ways to manage conflict.

The findings of the current study illuminate the ways in which certain stress variables and cognitive processes come together to influence psychological distress and interpersonal functioning. Researchers and practitioners must draw their attention to the central component of the model – cognitive schemas. According to Young (1999), the first phase of Schema Therapy is to identify the presence of schemas, educate the patient about the schemas, and confront the schemas. The findings of the present study support the direction of Schema Therapy such that the initial recognition and confrontation of the existing EMS could relieve a generous proportion of the psychological distress and decrease an individual's dependence on dysfunctional relationships.

Young and Klosko (1993) explain the extensive therapeutic process that is necessary to change the life long self-destructive patterns that exist because of EMS. The current study elucidates the existence of EMS among a sample of emergent adults. EMS are self-perpetuating, overtime these schemas are reinforced by various experiences and relationships. Therefore, if EMS were recognized as a source of distress for emergent adults and the proper measures to change the dysfunctional thoughts, beliefs, and expectations were adopted, then it is possible that schema therapy would be more successful for emergent adults.

A clinical sample would be expected to report higher levels of EMS compared to the non-clinical sample in the current study. The greater dysfunction

of the schemas might generate more variance in the patterns of psychological distress and interpersonal functioning. Non-clinical samples tend to generate lower EMS scores than clinical samples. Despite the difference in the level of endorsement of EMS, the overall factor structure of measures of EMS are consistent across clinical and non-clinical samples (Schmidt et al., 1995). Although, previous studies have shown EMS endorsement to be fairly consistent across both clinical and non-clinical samples, the measure of EMS as a total score might not map onto a sample that reports various Axis I and Axis II personality disorders (Schmidt & Joiner, 2004). Therefore, we recommend cautiously generalizing the findings of the current study to other populations.

In addition, an older sample with more life experiences and more responsibilities in daily life might provide a greater variation in the types of daily hassles that were experienced, appraised, and potentially ruminated on. In addition, if the current study had an increased range of ages the findings might have been similarly grouped within different life stages. Additional research should explore the potential changes in the level of EMS, appraisal of daily hassles, and interpersonal functioning depending on various life experiences. These experiences could include; being a patient of Schema Therapy, entering a dysfunctional relationship, ending a dysfunctional relationship, career changes, children, death of loved ones, educational endeavors. Having a sample that varied in ages is one way to evaluate these potential differences. An alternative design would involve a longitudinal study that followed women, from emergent

adulthood, or earlier, through the late stages of life. To evaluate the changes in EMS, daily hassles, and interpersonal functioning various methods could be implemented; interviews, daily dairies, surveys, or a combination. The findings from a longitudinal study would add the ability to observe the effects that experiences and relationships have on EMS, appraisal of daily hassles, and interpersonal relationships.

Appendix A: Demographics Questionnaire

The following questions are designed to establish general demographic information about our participants. All answers to this part of the survey (as well as all others) will remain anonymous and kept confidential.

Age:

What is your gender?

1. Male
2. Female
3. Other

What is your current annual family income (your best estimate)?

1. less than $19,999.00
2. $20,000 - $39,999.00
3. $40,000 - $59,999.00
4. $60,000 - $79,000.00
5. $80,000 - $100,000.00
6. $100,000 - $150,000.00
7. $151,000 - $200,000.00
8. over $200,000.00

How would you describe yourself ethnically or racially?

1. African American/Black
2. Asian/Asian American
3. Biracial/Multiethnic
4. Caribbean /Caribbean American
5. Caucasian//European American/White
6. East Asian/East Asian American
7. Hispanic
8. Indian
9. Latino/a
10. Latin American
11. Native American/American Indian
12. Pacific Islander
13. Southeast Asian/Southeast Asian American
14. South American
15. Other _____

What is your country of origin?

How would you describe your religious beliefs:

Please describe your comfort with the English language

1. Write and read English with no difficulty
2. Write and read English well
3. Write and read English with minimal difficulty
4. Write and read English with substantial difficulty

What is your relationship status?

1. single
2. dating (multiple persons or casually dating one person)
3. committed relationship
4. domestic partnership/life partners
5. married

The following questions ask about your best or closest friend. If you have several friends to whom you are close, please pick one to think about when answering the following questions. We would like you to answer the following questions about a friend with whom you are currently not involved in a romantic or sexual relationship. Please refer to this person for all questions in this study that ask you to focus on your closest or best friend.

How long have you currently known your best friend?

1. 3 months or less
2. 6 months or less
3. 9 months or less
4. 1 -2 years
5. 2-3 years
6. 3-5 years
7. 6 to 10 years
8. over 10 years

Have you ever been in a romantic relationship with your best friend?

1. Yes
2. No

How often do you see your best friend (on average)?

1. Every day or almost every day
2. A few times a week
3. A few times a month
4. One or 2 times every other month
5. One or two times every few months
6. About once a semester
7. About once a year
8. About once every couple of years
9. Have not seen him/her in several years

How often do you speak to your best friend (on average)?

1. Every day or almost every day
2. A few times a week
3. A few times a month
4. One or 2 times every other month
5. One or two times every few months
6. About once a semester
7. About once a year
8. About once every couple of years
9. Have not seen him/her in several years

What do you and your friend enjoy doing together?

1. Talk
2. Watch movies/TV
3. Exercise
4. Eat meals
5. Shop
6. Crafts
7. Other

Appendix B: Young Schema Questionnaire – Short Form (Young & Brown, 2003)

Listed below are statements that people might use to describe themselves. Please read each statement, then rate it based on how accurately it fits you OVER THE PAST YEAR. When you are not sure, base your answer on what you EMOTIONALLY FEEL, not what you think to be true.

A few of the items ask about your relationships with your parents or romantic partners. If any of these people have died, please answer these items based on your relationships when they were alive. If you do not currently have a partner but have had partners in the past, please answer the item based on your most recent significant romantic partner.

For each statement please choose the corresponding highest score from 1 to 6 in each drop down box that best describes you.

1 = Completely untrue of me
2 = Mostly untrue of me
3 = Slightly more true than untrue
4 = Moderately true of me
5 = Mostly true of me
6 = Describes me perfectly

1. I haven't had someone to nurture me, share himself/herself with me, or care deeply about everything that happens to me.

2. I find myself clinging to people I'm close to because I'm afraid they'll leave me.

3. I feel that people will take advantage of me.

4. I don't fit in.

5. No man/woman I desire could love me once he or she saw my defects or flaws.

6. Almost nothing I do at work (or school) is as good as other people can do.

7. I do not feel capable of getting by on my own in everyday life.

8. I can't seem to escape the feeling that something bad is about to happen.

9. I have not been able to separate myself from my parent(s) the way other people my age seem to.

10. I think that if I do what I want, I'm only asking for trouble.

11. I'm the only one who usually ends up taking care of the people I'm close to.

12. I am too self-conscious to show positive feelings to others (e.g., affection, showing I care).

13. I must be the best at most of what I do; I can't accept second best.

14. I have a lot of trouble accepting no for an answer when I want something from other people.

15. I can't seem to discipline myself to complete most routine or boring tasks.

16. Having money and knowing important people make me feel worthwhile.

17. Even when things seem to be going well, I feel that it is only temporary.

18. If I make a mistake, I deserve to be punished.

19. I don't have people to give me warmth, holding, and affection.

20. I need other people so much that I worry about losing them.

21. I feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.

22. I'm fundamentally different from other people.

23. No one I desire would want to stay close to me if he or she knew the real me.

24. I'm incompetent when it comes to achievement.

25. I think of myself as a dependent person when it comes to everyday functioning.

26. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.

27. My parent(s) and I tend to be over-involved in each other's lives and problems.

28. I feel as if I have no choice but to give into other peoples wishes, or else they

will retaliate, get angry, or reject me in some way.

29. I am a good person because I think of others more than myself.

30. I find it embarrassing to express my feelings to others.

31. I try to do my best; I can't settle for good enough.

32. I'm special and shouldn't have to accept many of the restrictions or limitations placed on other people.

33. If I can't reach a goal, I become easily frustrated and give up.
34. Accomplishments are most valuable to me if other people notice them.

35. If something good happens, I worry that something bad is likely to follow.

36. If I don't try my hardest, I should expect to lose out.

37. I haven't felt that I am special to someone.

38. I worry that people I feel close to will leave me or abandon me.

39. It is only a matter of time before someone betrays me.

40. I don't belong; I'm a loner.

41. I'm unworthy of the love, attention, and respect of others.

42. Most other people are more capable than I am in areas of work and achievement.

43. I lack common sense.

44. I worry about being physically attacked by people.

45. It is very difficult for my parent(s) and me to keep intimate details from each other without feeling betrayed or guilty.

46. In relationships, I usually let the other person have the upper hand.

47. I'm so busy doing things for the people that I care about that I have little time for myself.

48. I find it hard to be free-spirited and spontaneous around other people.

49. I must meet all my responsibilities.

50. I hate to be constrained or kept from doing what I want.

51. I have a very difficult time sacrificing immediate gratification or pleasure to achieve a long-range goal.

52. Unless I get a lot of attention from others, I feel less important.

53. You can't be too careful; something will almost always go wrong.

54. If I don't do the job right, I should suffer the consequences.

55. I have not had someone who really listens to me, understands me, or is tuned into my true needs and feelings.
56. When someone I care for seems to be pulling away or withdrawing from me, I feel desperate.

57. I am quite suspicious of other people's motives.

58. I feel alienated or cut off from other people.

59. I feel that I'm not lovable.

60. I'm not as talented as most people are at their work.

61. My judgment cannot be counted on in everyday situations.

62. I worry that Ill lose all my money and become destitute or very poor.

63. I often feel as if my parent(s) are living through me - that I don't have a life of my own.

64. I've always let others make choices for me, so I really don't know what I want for myself.

65. I've always been the one who listens to everyone else's problems.

66. I control myself so much that many people think I am unemotional or unfeeling.

67. I feel that there is constant pressure for me to achieve and get things done.

68. I feel that I shouldn't have to follow the normal rules or conventions that other people do.

69. I can't force myself to do things I don't enjoy, even when I know it's for my own good.

70. If I make remarks at a meeting, or am introduced in a social situation, its important for me to get recognition and admiration.

71. No matter how hard I work, I worry that I could be wiped out financially and lose almost everything.

72. It doesn't matter why I make a mistake. When I do something wrong, I should pay the consequences.

73. I haven't had a strong or wise person to give me sound advice or direction when I'm not sure what to do.

74. Sometimes I am so worried about people leaving me that I drive them away.

75. I'm usually on the lookout for people's ulterior or hidden motives.

76. I always feel on the outside of groups.

77. I am too unacceptable in very basic ways to reveal myself to other people or to let them get to know me well.

78. I'm not as intelligent as most people when it comes to work (or school).

79. I don't feel confident about my ability to solve everyday problems that come up.

80. I worry that I'm developing a serious illness, even though a doctor has diagnosed nothing serious.

81. I often feel I do not have a separate identify from my parent(s) or partner.

82. I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.

83. Other people see me as doing too much for others and not enough for myself.

84. People see me as uptight emotionally.

85. I can’t let myself off the hook easily or make excuses for my mistakes.

86. I feel that what I have to offer is of greater value than the contributions of others.

87. I have rarely been able to stick to my resolutions.

88. Lots of praise and compliments make me feel like a worthwhile person.

89. I worry that a wrong decision could lead to disaster.

90. I’m a bad person who deserves to be punished.

Appendix C: Post-Traumatic Stress Diagnostic Scale (Foa, Cashman, Joycox, & Perry, 1997)

These following questions ask about traumatic events and the feelings and experiences that people sometimes have after these events. Remember you can choose not to answer this questionnaire or a particular question.

This questionnaire contains 49 items. For each numbered item, there is a set of answers below. Circle the answer that best fits your answer. Please circle the answer underneath each question.

PART 1

Many people have lived through or witnessed a very stressful and traumatic event at some point in their lives. Indicate whether or not you have experienced or witnessed each traumatic event listed below by circling Yes or No.

1. Serious accident, fire, or explosion (for example, an industrial, farm, car,
   Plane or boating accident)

   Yes No

2. Natural disaster (for example, tornado, hurricane, flood, or major earthquake)

   Yes No

3. Non-sexual assault by a family member or someone you know (for example, being mugged, physically attacked, shot, stabbed, or held at gunpoint)

   Yes No

4. Non-sexual assault by a stranger (for example, being mugged, physically attacked, shot, stabbed, or held at gunpoint)

   Yes No

5. Sexual assault by a family member or someone you know (for example, rape
   or attempted rape)

   Yes No

6. Sexual assault by a stranger (for example, rape or attempted rape)

   Yes No

7. Military combat or a war zone

   Yes No

8. Sexual contact when you were younger than 18 with someone who was 5 or more years older than you (for example, contact with genitals, breasts)

   Yes No

9. Imprisonment (for example, prison inmate, prisoner of war, hostage)

   Yes No

10. Torture

    Yes No

11. Life-threatening illness

    Yes No

12. Other traumatic event

    Yes No

13. If you answered Yes to Item 12, specify the traumatic event in the space below.

IF YOU MARKED YES TO ANY OF THE ITEMS ABOVE, CONTINUE.
IF NOT, STOP AND CONTINUE TO THE NEXT QUESTIONNAIRE

PART 2

14. If you circled Yes for more than one traumatic event in Part 1, indicate which one
bothers you the most. If you circled Yes for only one traumatic event in Part 1,
circle the same one below.

    1. Accident
    2. Disaster
    3. Non-sexual assault/someone you know
    4. Non-sexual assault/stranger
    5. Sexual assault/someone you know
    6. Sexual assault/stranger
    7. Combat
    8. Sexual contact under 18 with someone 5 or more years older
    9. Imprisonment
    10. Torture
    11. Life-threatening illness
    12. Other traumatic event

Below are several questions about the traumatic event you marked in item 14.

15. How long ago did the traumatic event happen? (circle ONE)
    1. Less than 1 month
    2. 1 to 3 months
    3. 3 to 6 months
    4. 6 months to 3 years
    5. 3 to 5 years
    6. More than 5 years

For the following questions, circle Yes or No that proceeds each question.

During this traumatic event:

16. Were you physically injured?

    Yes No

17. Was someone else physically injured?

    Yes No

18. Did you think that your life was in danger?

    Yes No

19. Did you think that someone else's life was in danger?

    Yes No

20. Did you feel helpless?

    Yes No

21. Did you feel terrified?

    Yes No

PART 3

Below is a list of problems that people sometimes have after experiencing a traumatic event. Read each one carefully and choose the answer (0-3) that best describes how often that problem has bothered you IN THE PAST MONTH. Rate each problem with respect to the traumatic event you marked in item 14.

0: Not at all or only one time
1: Once a week or less/once in a while
2: 2 to 4 times a week/half the time
3: 5 or more times a week/almost always

22. Having upsetting thoughts or images about the traumatic event that came into
your head when you didn't want them to

0 1 2 3

23. Having bad dreams or nightmares about the traumatic event

0 1 2 3

24. Reliving the traumatic event, acting or feeling as if it was happening again

0 1 2 3

25. Feeling emotionally upset when you were reminded of the traumatic event (for
example, feeling scared, angry, sad, guilty, etc.)

0 1 2 3

26. Experiencing physical reactions when you were reminded of the traumatic event
(for example, breaking out in a sweat, heart beating fast)

0 1 2 3

27. Trying not to think about, talk about, or have feelings about the traumatic event

0 1 2 3

28. Trying to avoid activities, people, or places that remind you of the traumatic event

    0 1 2 3

29. Not being able to remember an important part of the traumatic event

    0 1 2 3

30. Having much less interest or participating much less often in important activities

    0 1 2 3

31. Feeling distant or cut off from people around you

    0 1 2 3

32. Feeling emotionally numb (for example, being unable to cry or unable to have
    loving feelings)

    0 1 2 3

33. Feeling as if your future plans or hopes will not come true (for example you will not have a career, marriage, children, or a long life)

    0 1 2 3

34. Having trouble falling or staying asleep

    0 1 2 3

35. Feeling irritable or having fits of anger

    0 1 2 3

36. Having trouble concentrating (for example, drifting in and out of conversations,
    losing track of a story on television, forgetting what you read)

    0 1 2 3

37. Being overly alert (for example, checking to see who is around you, being
uncomfortable with your back to a door, etc.)

    0 1 2 3

38. Being jumpy or easily startled (for example, when someone walks behind you)

    0 1 2 3

39. How long have you experienced the problems that you reported above? (Circle only ONE)

    1. Less than 1 month
    2. 1 to 3 months
    3. More than 3 months

40. How long after the traumatic event did these problems begin? (Mark only ONE)

    1. Less than 6 months
    2. 6 or more months

PART 4

Indicate if the problems you rated in Part 3 have interfered with any of the following areas of your life DURING THE PAST MONTH. Circle Yes or No following each question.

41. Work

    Yes No

42. Household chores and duties

    Yes No

43. Relationship with friends

    Yes No

44. Fun and leisure activities

    Yes No

45. Schoolwork

    Yes No

46. Relationships with your family

    Yes No

47. Sex life

    Yes No

48. General satisfaction with life

    Yes No

49. Overall level of functioning in all areas of your life

    Yes No

Appendix D: Negative Events Scale (Maybery, Arentz, & Jones-Ellis, 2007)

Daily hassles are defined as "...the irritating, frustrating, distressing demands that to some degree characterize everyday interactions with the environment" (Kanner, Coyne, Schaeffer, & Lazarus, 1981). In the following questionnaire you will be given a series of common daily hassles, followed by questions regarding your experiences with these events.

For each event please answer the four questions that follow. There are no right or wrong answers. I am only interested in how you have experienced these events in the PAST MONTH.

1. Negative feedback from friend(s)
2. Negative communications with friend(s)
3. Conflict with friend(s)
4. Disagreement (including arguments) with a friend(s)
5. Negative communication with your romantic partner or significant other
6. Conflict with your romantic partner or significant other
7. Disagreement (including arguments) with your romantic partner or significant other
8. Rejection by your romantic partner or significant other
9. Your romantic partner or significant other let you down
10. Your friend(s) let you down
11. Problem concerning school work
12. Problem with your workload
13. Meeting deadlines or goals of school
14. Use of your skills at school
15. Negative feedback from an instructor
16. Negative communication with an instructor
17. Conflict with an instructor
18. Disagreement (including arguments) with a supervisor
19. Not enough money for food, clothing, housing, etc.
20. Not enough money for education
21. Not enough money for emergencies
22. Not enough money for extras such as entertainment/holiday
23. Negative communication with your parent(s)

How often did the event happen in the PAST MONTH?

0 = Not at all
1 = 1-3 times
2 = 4-6 times
3 = 7-9 times
4 = 10 or more times

How large a hassle for you was each event in the PAST MONTH?

0 = No hassle
1 = A little of a hassle
2 = Somewhat of a hassle
3 = A lot of a hassle
4 = Extreme hassle

How much impact did this have on your positive mood in the PAST MONTH?

0= no impact
1= A little impact
2= Some impact
3= A large impact
4= Extreme impact

How much did you think about the event(s) after it happened in the PAST MONTH?

0= Not at all
1= A little bit
2= Some of the time
3= Frequently
4= Almost constantly
5= All the time, it was hard to think about anything else.

Can you briefly describe the biggest hassle that you experienced in the PAST MONTH.

Appendix E: Beck Depression Inventory – Second Edition (Beck, Steer, & Brown, 1996)

In this questionnaire are groups of statements. Please read each group of statements carefully, then pick out the one statement in each group which best describes the way you have been feeling the PAST WEEK, INCLUDING TODAY! Circle the number beside the statement you chose. Be sure to read all the statements in each groups before making your choice.

1. 1 I do not feel sad.
   2 I feel sad.
   3 I am sad all the time and I can't snap out of it.
   4 I am so sad or unhappy that I can't stand it.

2. 1 I am not particularly discouraged about the future.
   2 I feel discouraged about the future.
   3 I feel I have nothing to look forward to.
   4 I feel that the future is hopeless and that things cannot improve.

3. 1 I do not feel my life is a failure.
   2 I feel I have failed more than the average person.
   3 As I look back on my life, all I can see is a lot of failures.
   4 I feel I am a complete failure as a person.

4. 1 I get as much satisfaction out of things as I used to.
   2 I don't enjoy things the way I used to.
   3 I don't get real satisfaction out of anything anymore.
   4 I am dissatisfied or bored with everything.

5. 1 I don't feel particularly guilty.
   2 I feel guilty a good part of the time.
   3 I feel quite guilty most of the time.
   4 I feel guilty all of the time.

6. 1 I don't feel I am being punished.
   2 I feel I may be punished.
   3 I expect to be punished.
   4 I feel I am being punished.

7. 1 I don't feel disappointed in myself.
   2 I am disappointed in myself.
   3 I am disgusted with myself.
   4 I hate myself.

8. 1 I don't feel I am any worse than anybody else.
   2 I am critical of myself for my weaknesses or mistakes.
   3 I blame myself all the time for my faults.
   4 I blame myself for everything bad that happens.

9. 1 I don't have any thoughts of killing myself.
   2 I have thoughts of killing myself, but I would not carry them out.
   3 I would like to kill myself.
   4 I would kill myself if I had the chance.

10. 1 I don't cry anymore than usual.
    2 I cry more now than I used to.
    3 I cry all the time now.
    4 I used to be able to cry, but now I can't cry even though I want to.

11. 1 I am no more irritated now than I ever am.
    2 I get annoyed or irritated more easily than I used to.
    3 I feel irritated all the time now.
    4 I don't get irritated at all by the things that used to irritate me.

12. 1 I have not lost interest in other people.
    2 I am less interested in other people than I used to be.
    3 I have lost most of my interest in other people.
    4 I have lost all of my interest in other people.

13. 1 I make decisions about as well as I ever could.
    2 I put off making decisions more than I used to.
    3 I have greater difficulty in making decisions than before.
    4 I can't make decisions at all anymore.

14. 1 I don't feel I look any worse than I used to.
    2 I am worried that I look old and unattractive.
    3 I feel that these are permanent changes in my appearance that make me look unattractive.
    4 I believe that I look ugly.

15. 1 I can work about as well as before.
    2 It takes me an extra effort to get started at doing something.
    3 I have to push myself very hard to do something.
    4 I can't do any work at all.

16. 1 I can sleep as well as usual.
    2 I don't sleep as well as I used to.
    3 I wake up 1-2 hours earlier than I used to and cannot get back to sleep.
    4 I wake up several hours earlier than I used to and cannot get back to sleep.

17. 1 I don't get more tired than usual.
    2 I get tired more easily than I used to.
    3 I get tired from doing almost anything.
    4 I am too tired to do anything.
18. 1 My appetite is no worse than usual.
    2 My appetite is not as good as it used to be.
    3 My appetite is much worse now.
    4 I have no appetite at all anymore.

19. 1 I haven't lost much weight, if any lately.
    2 I have lost more than 5 pounds.
    3 I have lost more than 10 pounds.
    4 I have lost more than 15 pounds.

19a. I am purposely trying to lose weight by eating less.
    Yes ____ No ____

20. 1 I am no more worried about my health than usual.
    2 I am worried about physical problems such as aches and pains, an upset stomach,
    and constipation.
    3 I am very worried about physical problems, and it's hard to think of much else.
    4 I am so worried about my physical problems, that I can't think about anything else.

21. 1 I have not noticed any recent changes in my interest in sex.
    2 I am less interested in sex than I used to be.
    3 I am much less interested in sex now.
    4 I have lost interest in sex completely.

Appendix F: PANAS-X

This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past few weeks. Use the following scale to record your answers:

1 very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely

___ Cheerful	___ sad	___ active	___ angry at self
___ disgusted	___ calm	___ guilty	___ enthusiastic
___ attentive	___ afraid	___ joyful	___ downhearted
___ bashful	___ tired	___ nervous	___ sheepish
___ sluggish	___ amazed	___ lonely	___ distressed
___ daring	___ shaky	___ sleepy	___ blameworthy
___ surprised	___ happy	___ excited	___ determined
___ strong	___ timid	___ hostile	___ frightened
___ scornful	___ alone	___ proud	___ astonished
___ relaxed	___ alert	___ jittery	___ interested
___ irritable	___ upset	___ lively	___ loathing
___ delighted	___ angry	___ ashamed	___ confident
___ inspired	___ bold	___ at ease	___ energetic
___ fearless	___ blue	___ scared	___ concentrating
___ disgusted with self	___ shy	___ drowsy	___ dissatisfied with self

Appendix G: Destructive Conflict Scale (Holmes & Murray, 1997)

Problems and disagreements arise in even the best of relationships. We are interested in your perceptions of how you and your friend deal with difficult issues in your relationship. Friends may deal with potentially contentious issues in many different ways. We are simply interested in assessing the diverse ways in which individuals deal with problems in their relationships.

When you are responding to the following statements, please try to answer honestly. Keep in mind that even the best of friends may behave in less than ideal ways when they are confronting difficult issues.

Please respond to the statements using this scale.

1 = not at all true
2
3 = somewhat true
4
5 = moderately true
6
7 = very true
8
9 = completely true

1. _____ Most of the time our disagreements seem to follow a very familiar course, with one of use defending himself or herself against the other's criticisms.

*2. _____ My best friend and I never have any difficulty discussing our problems in a straightforward, calm, and constructive manner.

3. _____ When my best friend and I try to discuss a difficult issue, we sometimes end up criticizing or blaming one another for problems that are not related to the issue at hand.

*4. _____ My best friend and I always express our feelings about our problems in an open and honest manner that prevents little problems from becoming big ones.

5. _____ Somehow conflicts get out of hand in our relationship; we often end up fighting about issues that have little relation to the problem that started the argument.

6. _____ If my best friend acts in an angry or hurtful way, I tend to respond in an equally harsh and critical manner.

7. _____ If I criticize my best friend, he or she tends to criticize me in return.

8. _____ Rather than feeling better after discussing a difficult issue, my best friend and I end up feeling even more hurt and angry than we did before the discussion.

9. _____ I find it very difficult not to criticize and blame my best friend when he or she behaves badly.

*10. _____ When I act in an angry or hurtful way, my best friend tries to find out what is bothering me rather than acting angry and hurt too.

*11. _____ My best friend and I always try to find a constructive, positive way to respond to one another's angry outbursts, complaints, or misbehaviors.

*12. _____ My best friend and I always strive to take one another's points of view into consideration when we deal with difficult issues in our friendship.

13. _____ My best friend seems too willing to criticize me when I behave badly.

*14. _____ When my best friend acts in an angry and hurtful way, I try to find a way to make him or her feel better.

*15. _____ My best friend and I are able to reach mutually satisfying compromises when we discuss contentious issues in our friendship.

16. _____ On more than one occasion, our disagreements have escalated to a point where one of us threatened to end our friendship.

17. _____ My best friend and I agree that some issues in our relationship are better left untouched.

*18. _____ My best friend accepts my faults and misbehaviors; he/she doesn't nag at me to change.

19. _____ When my best friend and I discuss contentious issues, one of us often ends up yelling or screaming at the other.

*20. _____ Even when we are discussing an issue that we both feel strongly about, I try hard to stay focused on my best friend’s concerns.

*21. _____ My best friend never loses sight of my own needs and goals when we are trying to resolve a difficult issue in our relationship.

22. _____ My best friend can be rather selfish and think largely of him/herself when we are dealing with contentious issues.

23. _____ At times, I tend to press for my own concerns and almost forget my best friend's when we are dealing with a difficult issue that is especially important to me.

* Reverse-scored.

Appendix H: Informed Consent

MOUNT HOLYOKE COLLEGE
INFORMED CONSENT FORM

Title of Study: Cognitive Schemas, Stress, and Mood
Investigator(s): Amber N. Douglas, Jennifer Lewis, and Sayeeda Raysheed

Brief description of project and procedures to be followed:
The current study explores the relationship between the way that we think about things, stress (past and current) and our mood. Participants are asked to complete questionnaires about their past stressful events, including extreme stress or traumatic stress events, current daily hassles or stressors, and their mood.

This project has been approved by the Institutional Review Board of Mount Holyoke College. The following informed consent is required by Mount Holyoke College for all participants in human subjects research:

A. Your participation is voluntary.

B. You may withdraw your consent and discontinue participation in this study at any time. You will not be penalized in any way if you decide not to participate.

C. The procedures to be followed in the project will be explained to you, and any questions you may have about the aims or methods of the project will be answered.

D. All of the information from this study will be treated as strictly confidential. No names will be associated with the data in any way. If you provide your address in order to receive a report of this research upon its completion, that information will not be used to identify you in the data. The data will be stored in locked offices in Reese (Psychology and Education Building) and the data will be accessible only to the investigators and members of the research team.

E. The results of this study will be made part of a final research report and may be used in papers submitted for publication or presented at professional conferences, but under no circumstances will your name or other identifying characteristics be included.

If you understand the above, and consent to participate in the project, please sign here:

_____
(Participant sign here)

_____
(Participant print name here)

_____
(Date)

If you have any questions about this research, please contact:

Amber Douglas at _adouglas@mtholyoke.edu or MHC's Institutional Review Board at institutional-review-board@mtholyoke.edu.

Would you like to be entered into a raffle for $25 gift card?

YES NO

Would you like a report on the group results of this research project upon its completion?

YES NO

Address to which the report should be sent: _____

Appendix I: Debriefing Statement

Thank you for participating in this study. The purpose of this investigation was to explore the relationship between stressful life events, both extreme stressors and typical daily hassles, cognitive schemas, coping style, mood, and conflict style. Participants were asked to complete assessments of stress (traumatic and daily stress), cognitive schemas, coping, mood, and conflict style. These assessments are being used for research purposes only and are not intended to be diagnostic. All information gathered in this study will be kept completely confidential and your name will not be associated with any of the data. If you have any questions please contact Jennifer Lewis at lewis22j@mtholyoke.com or Amber Douglas at adouglas@mtholyoke.edu.

References

Aldwin, C. M. (2007). *Stress, coping, and development: An integrative perspective (2nd ed.)*. New York, NY US: Guilford Press.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of personality and social psychology*, *51*(6), 1173-1182.

Beck, A. T. (1967). Depression: Clinical, experimental, and theoretical aspects. New York: Harper & Row.

Beck, A.T., Steer, R.A., & Brown, G.K. (1996). Manual for the Beck Depression Inventory-II. San Antonio, TX: Psychological Corporation.

Briere, J., & Rickards, S. (2007). Self-awareness, affect regulation, and relatedness: Differential sequels of childhood versus adult victimization experiences. *Journal of Nervous and Mental Disease, 195*(6), 497-503. doi: 10.1097/NMD.0b013e31803044e2

Briere, J., & Scott, C. (2006). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment*. Thousand Oaks, CA US: Sage Publications, Inc.

Collins, W. A., Laursen, B., Mortensen, N., Luebker, C., & Ferreira, M. (1997). Conflict processes and transitions in parent and peer relationships: Implications for autonomy and regulation. *Journal of Adolescent Research, 12*, 178-198. doi:10.1177/0743554897122003

Crawford, E., & Wright, M. O. (2007). The impact of childhood psychological maltreatment on interpersonal schemas and subsequent experiences of relationship aggression. *Journal of Emotional Abuse, 7*(2), 93-116. doi: 10.1300/J135v07n02_06

Davidson, J. R. T., & Foa, E.B. (1993). *Posttraumatic Stress Disorder: DSM-IV and beyond*. Washington, DC: American Psychiatric Press.

Fiske, S. T. (2005). Social cognition and the normality of prejudgement. *On the nature of prejudice*, *50*, 36-53.

Foa, E. B., Cashman, L., Jaycox, L., & Perry, K. (1997). The validation of a self-report measure of posttraumatic stress disorder: The posttraumatic diagnostic scale. *Psychological Assessment, 9*(4), 445-451. doi: 10.1037/1040-3590.9.4.445

Foa, E. B., Ehlers, A., Clark, D. M., Tolin, D. F., & Orsillo, S. M. (1999). The posttraumatic cognitions inventory (PTCI): Development and validation. *Psychological Assessment, 11*(3), 303-314. doi: 10.1037/1040-3590.11.3.303

Ford, E., Clark, C., & Stansfeld, S. A. (2011). The influence of childhood adversity on social relations and mental health at mid-life. *Journal Of Affective Disorders*, *133*(1-2), 320-327. doi:10.1016/j.jad.2011.03.017

Garnefski, N., & Kraaij, V. (2009). Cognitive coping and psychological adjustment in different types of stressful life events. *Individual Differences Research, 7*(3), 168-181.

Gottlieb, B. H. (1997). In Gottlieb B. H. (Ed.), *Coping with chronic stress*. New York, NY US: Plenum Press.

Harkness, K. L., Lumley, M. N., & Truss, A. E. (2008). Stress generation in adolescent depression: The moderating role of child abuse and neglect. *Journal of Abnormal Child Psychology, 36*(3), 421-432. doi: 10.1007/s10802-007-9188-2

Herman, J.L. (1997). *Trauma and Recovery*. New York: Basic Books.

Jose, P.E. (2008). *ModGraph-I: A programme to compute cell means for the graphical display of moderational analyses: The internet version, Version 2.0.* Victoria University of Wellington, Wellington, New Zealand. Retrieved March 30, 2013 from http://www.victoria.ac.nz/psyc/staff/paul-jose-files/modgraph/modgraph.php

Kanner, A. D., Coyne, J. C., Schaefer, C., & Lazarus, R. S. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine, 4*(1), 1-39. doi: 10.1007/BF00844845

Kessler, R. C. (1997). The effects of stressful life events on depression. *Annual Review of Psychology, 48*, 191-214. doi: 10.1146/annurev.psych.48.1.191

Laursen, B. (1993). Conflict management in close peer relationships. In B. Laursen (Ed.), *Close friendships in adolescence. New Directions for Child Development* (No. 60, pp. 39-54). San Francisco: Jossey-Bass.

Laursen, B. (1995). Conflict and social interaction in adolescent relationships. *Journal of Research on Adolescence, 5*, 55-70. doi:10.1207/s15327795jra0501_3

Lazarus, R. S. (1966). *Psychological stress and the coping process*. New York, NY: McGraw-Hill.

Lazarus, R. S. (1999). *Stress and emotion: A new synthesis*. New York, NY US: Springer Publishing Co.

Lazarus, R. S., & Folkman, S. (1984). Psychological stress and the coping process.New York, NY: Springer.

Lumley, M. N., & Harkness, K. L. (2007). Specificity in the relations among childhood adversity, early maladaptive schemas, and symptom profiles in adolescent depression. *Cognitive Therapy and Research, 31*(5), 639-657. doi: 10.1007/s10608-006-9100-3

Maybery, D. J., Neale, J., Arentz, A., & Jones-Ellis, J. (2007). The negative event scale: Measuring frequency and intensity of adult hassles. *Anxiety, Stress & Coping: An International Journal, 20*(2), 163-176. doi: 10.1080/10615800701217654

Messman-Moore, T. L., & Coates, A. A. (2007). The impact of childhood psychological abuse on adult interpersonal conflict: The role of early maladaptive schemas and patterns of interpersonal behavior. *Journal of Emotional Abuse*, *7*(2), 75-92.

Murray, S. L., & Holmes, J. G. (1997). A leap of faith? positive illusions in romantic relationships. *Personality and Social Psychology Bulletin, 23*(6), 586-604. doi: 10.1177/0146167297236003

Pole, N. (2007). The psychophysiology of posttraumatic stress disorder: A meta-analysis. *Psychological Bulletin*, *133*(5), 725-746. doi:10.1037/0033-2909.133.5.725

Powers, S. I., Gunlicks, M., Laurent, H., Balaban, S., Bent, E., & Sayer, A. (2006). Differential effects of subtypes of trauma symptoms on couples' hypothalamus-pituitary-adrenal (HPA) axis reactivity and recovery in response to interpersonal stress. In R. Yehuda (Ed.), *Psychobiology of posttraumatic stress disorders: A decade of progress (vol. 1071).* (pp. 430-433). Malden: Blackwell Publishing.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers, 36*, 717-731.

Rafaeli, E., Bernstein, D. P., & Young, J. (2011). Schema therapy: Distinctive features. New York, NY US: Routledge/Taylor & Francis Group.

Reis, H. T., & Collins, W. A. (2004). Relationships, human behavior, and psychological science. Current Directions in Psychological Science, 13, 233-237.

Reis, H. T., & Downey, G. (1999). Social cognition in relationships: Building essential bridges between two literatures. *Social Cognition*, *17*(2), 97-117. doi:10.1521/soco.1999.17.2.97

Roemmele, M., & Messman-Moore, T. L. (2011). Child abuse, early maladaptive schemas, and risky sexual behavior in college women. *Journal Of Child Sexual Abuse: Research, Treatment, & Program Innovations For Victims, Survivors, & Offenders*, *20*(3), 264-283. doi:10.1080/10538712.2011.575445

Schmidt, N. B., & Joiner, T. E. J. (2004). Global maladaptive schemas, negative life events, and psychological distress. *Journal of Psychopathology and Behavioral Assessment, 26*(1), 65-72. doi: 10.1023/B:JOBA.0000007457.95008.d2

Steer, R. A., & Clark, D. A. (1997). Psychometric characteristics of the beck depression Inventory–II with college students. *Measurement and Evaluation in Counseling and Development, 30*(3), 128-136.

Storch, E. A., Roberti, J. W., & Roth, D. A. (2004). Factor structure, concurrent validity, and internal consistency of the beck depression inventory-second edition in a sample of college students. *Depression and Anxiety, 19*(3), 187-189. doi: 10.1002/da.20002

Sutker, P. B., Davis, J., Uddo, M., & Ditta, S. R. (1995). War zone stress, personal resources, and PTSD in Persian Gulf War returnees. *Journal Of Abnormal Psychology*, *104*(3), 444-452. doi:10.1037/0021-843X.104.3.444

Taft, C. T., Resick, P. A., Watkins, L. E., & Panuzio, J. (2009). An investigation of posttraumatic stress disorder and depressive symptomatology among female victims of interpersonal trauma. *Journal of Family Violence, 24*(6), 407-415. doi: 10.1007/s10896-009-9243-6

Watson, D., & Clark, L. A. (1994). The PANAS-X: Manual for the positive and negative affect schedule-Expanded Form. Iowa City: University of Iowa

Wheaton, B. (1994). Sampling the stress universe. In W. R. Avison, & I. H. Gotlib (Eds.), (pp. 77-114). New York, NY US: Plenum Press.

Wright, M., Crawford, E., & Del Castillo, D. (2009). Childhood emotional maltreatment and later psychological distress among college students: The mediating role of maladaptive schemas. *Child Abuse & Neglect*, *33*(1), 59-68.

Young, C. C., LaMontagne, L. L., Dietrich, M. S., & Wells, N. (2012). Cognitive vulnerabilities, negative life events, and depressive symptoms in young adolescents. *Archives of Psychiatric Nursing, 26*(1), 9-20. doi: 10.1016/j.apnu.2011.04.008

Young, J. E. (1990). *Cognitive therapy for personality disorders: A schema-focused approach*. Sarasota, FL England: Professional Resource Exchange, Inc.

Young, J.E., & Brown G. (2003) Young Schema Questionnaire: Short Form. New York, NY.

Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. New York, NY US: Guilford Press.