EMOTION DYSREGULATION AND RE-REGULATION:

PREDICTORS OF RELATIONSHIP INTIMACY AND DISTRESS

A Dissertation

by

BRIAN VAUGHN ABBOTT

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2005

Major Subject: Psychology

EMOTION DYSREGULATION AND RE-REGULATION:

PREDICTORS OF RELATIONSHIP INTIMACY AND DISTRESS

A Dissertation

by

BRIAN VAUGHN ABBOTT

Submitted to Texas A&M University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Approved as to style and content by:

_____	_____
Douglas K. Snyder (Chair of Committee)	Brian H. Stagner (Member)
_____	_____
David H. Gleaves (Member)	Collie W. Conoley (Member)
_____	
W. Steven Rholes (Head of Department)	

May 2005

Major Subject: Psychology

ABSTRACT

Emotion Dysregulation and Re-regulation:

Predictors of Relationship Intimacy and Distress.

(May 2005)

Brian Vaughn Abbott, B.S., Brigham Young University;

M.A., University of Connecticut; M.S., Texas A&M University

Chair of Advisory Committee: Dr. Douglas K. Snyder

Over the past 20 years, our understanding of emotional processes has grown rapidly. Within the study of emotion, a key area of interest has been how individuals succeed or fail in regulating emotional responses. Although still in its early development, researchers in this field have made progress in identifying the neurological, psychological, and social processes that underlie emotion regulation and dysregulation. Despite these advances, relatively few of these insights have been considered in light of the highly emotional terrain of couple distress. In the present study, one hundred and eight cohabiting couples rated themselves and their partner on key emotion regulation variables (e.g., the tendency to lose control of one's emotions and the ability to restore emotional control and equilibrium). Analyses using the Actor-Partner Interdependence Model (APIM) showed strong links between these variables and individuals' experience of intimacy and distress in their relationship. Results suggest that there are multiple avenues through which emotion regulation impacts a given individual's relationship functioning; these include: (1) the individual's self-

perceived capacity for emotion regulation, (2) their partner's self-perceived capacity for emotion regulation, (3) the individual's perception of their partner's capacity for emotion regulation, and (4) the partner's perception of the individual's emotion regulation abilities.

DEDICATION

This dissertation is dedicated to my wife, Melanie, who has lovingly supported me through 12 years of marriage, most of it spent in school. She has made tremendous sacrifices to enable me to complete my education. Her love for learning and her insights about human behavior and relationships have taught me much. Finally, our relationship has been the critical laboratory for my own personal growth and development where I have gained my most important insights about the role of emotions in relationships.

ACKNOWLEDGMENTS

I am indebted to Dr. Douglas Snyder for his unfailing support, instruction, and encouragement throughout my graduate education. He has been a wise and trusted counselor and teacher, guiding me both professionally and personally. He has patiently mentored me, despite my personal shortcomings. Our many conversations about emotional processes in relationships have greatly informed this dissertation and enriched my clinical understanding of marital relationships.

TABLE OF CONTENTS

Page

Page

LIST OF TABLES

LIST OF FIGURES

FIGURE Page

INTRODUCTION

There are few experiences in life that are as emotionally provoking as intimate relationships. Emotion is the glue that binds couples together and is frequently the solvent that erodes those same bonds. Throughout life, it is the emotions that others provoke in us that designate those persons as significant. These emotional attachments are the hallmark of intimate relationships. Although largely desirable, these connections can be intense. The euphoria of falling in love can set the stage for more dysphoric and destructive emotions. It is not uncommon for partners to be shocked by the intensity of their own emotions and the unpredictability of their partner's behavior.

Indeed, there is a darker side to emotional connectedness. In the study of violence, it is widely agreed that physical abuse between intimate partners is one of the most common forms of violence in our society (Wolfe, Weberle, & Scott, 1997). Whereas we often view intimate relationships as sanctuaries from the outside world, the chances of being a victim of violence actually increases as relationships become more intimate (Marcus & Swett, 2001). The news media is replete with extreme examples of domestic violence and domestic homicide. The strong negative emotions that can be generated by participation in intimate relationships have also been implicated in a host of other physical and psychological problems experienced by individuals exposed to chronic relationship distress. High levels of relationship discord, conflict, and negativity have been shown to relate to negative health outcomes including higher mortality rates,

---

This dissertation follows the style and format of the *Journal of Consulting and Clinical Psychology*.

coronary heart disease, and compromised immune system functioning (Kiecolt-Glaser, Malarkey, Cacioppo, & Glaser, 1994; Orth-Gomer et al., 2000; & Robles & Kiecolt-Glaser, 2003). In addition, relationship distress and negativity have been linked to emotional and behavioral health problems including depression, anxiety, and chemical addiction (Snyder & Whisman, 2003; Whisman, 2001). For these reasons, the ability to effectively regulate one's emotional processes as well as the ability to monitor and modify interpersonal emotional exchanges have important implications for both individual and relational health.

Over the past 20 years, researchers across several disciplines have made significant inroads in better understanding how people regulate or fail to regulate emotions. Beginning in the early 1980's developmental researchers introduced the construct of emotion regulation and recognized it as an important step in healthy child development (Gaensbauer, 1982). Since that time, the study of emotion regulation has broadened. There has been a shift toward recognizing the adaptive functions of emotion (Greenberg & Paivio, 1997). Others have focused on understanding the neurological substrate of emotion and emotion regulation (LeDoux, 1993; Lewis & Stieben, 2004). Researchers in developmental psychopathology now agree that the failure to develop emotion regulation skills is an important precursor to many forms of subsequent psychopathology (Bradley, 2000; Keenan, 2000). Whereas the vast majority of research in the field of emotion regulation has taken place within the field of child development and developmental psychopathology (Cole, Martin & Dennis, 2004; Fox & Calkins, 2004), Gross (1998) has initiated the study of emotion regulation in adult populations

and has focused on better delineating specific emotion regulation strategies. Over the past several years, emotion regulation has been acknowledged as an important component within the broader construct of emotional intelligence (Goleman, 1995; Mayer & Salovey, 1997; Salovey & Sluyter, 1997). Moreover, researchers in the field of attachment have highlighted the importance of social and relational contexts in the development and operation of emotion regulation (Mikulincer, Shaver & Pereg, 2003).

Despite advances in our understanding of the neurological, psychological, social and developmental processes that help individuals regulate their emotions, comparatively little of this information has been integrated into the couple therapy literature. The purposes of this study are to (1) review the link between emotion dysregulation and relationship functioning, (2) review research and theory relevant to the study of emotion dysregulation in relationships, and (3) generate new data addressing the link between partners' perceived emotion regulation abilities and their experience of intimacy and distress in their relationship.

What Is Emotion Dysregulation?

Any discussion of emotion regulation or dysregulation presupposes that we understand what is or is not being regulated. Due to the complexity of emotional experience there are many possible definitions of emotion. However, a widely accepted definition that is suitable for the purposes of this study is that emotions are biologically based "response tendencies" that coordinate adaptive responding to significant environmental events (Gross, 1998; Levenson, 1994; Scherer, 1984; Tooby & Cosmides, 1990). Different emotions seem to address different adaptive problems (Gross &

Munoz, 1995). Emotions are response tendencies in the sense that under specific environmental circumstances they make certain behavioral responses more likely to occur. They coordinate a cascade of neurological, physiological, cognitive, and behavioral changes that occur in concert enabling us respond to important environmental events.

Within relationships, emotions serve many adaptive important purposes that are essential to healthy relationship functioning. However, when emotions become too intense, last too long, or do not "fit" the context in which they are occurring, then it becomes adaptive to regulate them. Discrepancies between what is prescribed by a given response tendency and the behavior that is ultimately exhibited point to the fact that we frequently regulate our emotional responding (Gross, 1998). All of us have had experiences when we resisted what we "felt" like doing in favor of doing something different. Relationships present many opportunities for the regulation of emotion (e.g., covering up hurt feelings, resisting the urge to make a rude comment, appearing to enjoy a meal that has been specially prepared, or trying to understand a partner's intentions so as not to feel upset). These are all examples of the modulation of emotional response tendencies in a way that changes the final outcome, or even the experience of emotion itself. It is easy to identify emotion regulation when we experience it or observe it in someone else, but it is much more difficult to define.

Thompson (1994) provided the following definition that has become widely cited in the literature: "Emotion regulation consists of the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially

their intensive and temporal features, to accomplish one's goals" (p. 28). Although sometimes individuals may attempt to regulate their emotions by trying to influence *which* emotion they experience (e.g., becoming angry rather than hurt), more often regulation involves altering the intensive and temporal features of a specific emotion. Modifying the "dynamics" of a given emotion may involve diminishing or enhancing the *intensity*, restricting or widening the *range* or *lability*, slowing or speeding *rise time* and *recovery time*, and prolonging or shortening the overall *persistence* of that emotion (Thompson, 1994).

For the purposes of this paper, *emotion regulation* refers to the "dynamic ordering and adjusting" of emotional processes in the service of adaptive functioning. Accordingly, *emotion dysregulation* refers to regulatory processes that ultimately interfere with adaptive functioning. Although many clinicians tend to equate *emotion dysregulation* with a lack of control over emotional arousal, emotion dysregulation can also refer to deficits in the ability to experience, express, and utilize emotions when doing so would be adaptive (Gratz & Roemer, 2004). Therefore, emotion dysregulation may involve both deficits in the modulaiton of emotional arousal and deficits in emotion utilization. However, because this study does not directly address problems of emotion utilization, the term *emotion dysregulation* will typically be used to refer to deficits in the ability to contain emotional arousal. When people are emotionally dysregulated, they often report feeling "out of control." They are prone to do and say things that they would not normally do. There may be a sense of being "overwhelmed" by one's emotions, that the emotions are more powerful than they are, that the emotions are

dictating their behavior without their consent. Although such descriptions highlight the *state* of emotion dysregulation, we also consider emotion dysregulation as a *trait*. It is a state insofar as it is time-limited, but it is a trait in that the tendency for it to occur for a given individual shows consistency across time and this tendency varies across individuals.

Another important aspect of emotion regulation is the capacity to regain control of one's emotions, or restore emotional equilibrium once it has been lost. For the purposes of this study, we will refer to this process as *emotion re-regulation*. For some individuals, emotion re-regulation is a relatively easy process. Although they may experience a temporary loss of emotional control, they find that such episodes are usually short lived. Such individuals' thinking, behaving, and physiology returns to baseline relatively quickly and they are able to avoid the negative consequences associated with prolonged states of dysregulation. On the other hand, individuals that have difficulty with emotion re-regulation tend to get "lost" in their emotions. They may even be aware that their feelings or actions are out of proportion to events in their environment, but they just can't seem to find a way out of their distress. For these individuals, emotion dysregulation is often prolonged, potentially destructive, and very unpleasant.

Gross (1998) has focused on the variable of time in classifying various emotion regulation strategies (e.g., at what point in the emotion-generative processes one intervenes). He distinguished between antecedent-focused (before the emotion is generated) verses response-focused (after the emotion is generated) categories.

Temporally, we see emotion dysregulation as occurring earlier in the emotion management process compared to emotion re-regulation. Emotion dysregulation involves more antecedent-focused strategies used to stay in control of one's emotions, whereas emotion re-regulation involves more response-focused emotion regulation strategies to restore emotional equilibrium after it has been lost.

Appreciating the Relationship-Emotion Dysregulation Link

It is not difficult to imagine how emotion dysregulation and re-regulation difficulties could have a negative impact on intimate relationships. Bell and Calkins (2000) point out that relationships are both inputs and outputs for emotion regulation. Relationships serve as the primary developmental context for the successful acquisition of emotion regulation skills. Conversely, emotion regulation skills are a prerequisite for engaging competently in social relationships. To put it more concisely, you need emotion regulation to build healthy relationships, but it is difficult to develop emotion regulation skills without good relationships. The individual who enters adulthood without these essential skills is in a dilemma. It is not surprising then that relationship distress and emotion dysregulation tend to co-occur. The bidirectional relation between emotion dysregulation and couple distress is often under-appreciated. Just as emotion dysregulation exerts an obvious negative strain on couple interactions, so too can unremitting relational discord capsize even the most emotionally stable individuals. Intrapersonal emotion dysregulation breeds interpersonal dysregulation and vice versa. This recursive self-maintaining process can be vicious. As each individual in the relationship becomes more dysregulated and unable to regain their emotional footing,

they are less able to stabilize the relationship and they feel stuck in negative patterns of relating to each other. They literally feel the relationship "spiraling out of control." Luckily, the recursive spiral also works in the opposite direction. Emotionally regulated individuals have a regulating influence on their relationships, and stable relationships can be tremendously soothing to individuals.

Although there are likely many factors that can account for the bidirectional relation between individual and relational emotion dysregulation, one of the paradoxical processes that may operate in emotionally dysregulated relationships is a mismatch of emotion regulation strategies. This occurs when what is emotion regulating at the individual level is dysregulating at the relational level. For example, what is emotion regulating for a husband (e.g., increasing space) may become dysregulating for his wife (who perceives emotional unresponsiveness). In an attempt to regulate her resulting physiological arousal, the wife may respond by trying to "talk it through" (her favorite emotion regulation strategy) and attempt to re-engage her husband in conversation. He experiences her refusal to give him space as emotionally suffocating and insensitive to his needs so he responds with more emphatic emotional withdrawal, thus beginning a vicious cycle of emotional dysregulation that destabilizes the relationship. Technically, neither of their emotion regulation strategies is maladaptive; rather it is the interaction or lack of congruence between coping strategies that is maladaptive or dysfunctional.

The Relational Context of Emotion Regulation

Some of the richest theorizing regarding the link between emotion dysregulation and relationships comes from the field of adult attachment (Hazan & Shaver, 1987). At

its essence, attachment theory is a set of ideas about how individuals use key relationships to regulate their emotions and how those relationships are internalized over time in such a way as to shape future relationship dynamics and corresponding strategies for managing emotion (Mikulincer et al., 2003). Bowlby (1980) highlighted the potential of attachment relationships to provide emotional soothing and alleviate anxiety. This is especially true for infants and young children. Parents expend a significant amount of effort monitoring, interpreting and modulating arousal states in their children.

Although the primary burden of emotion regulation shifts from the parent to the self of the child over the course of development, there remain important ways in which even adults regulate each other's emotions. Listening to someone's problems, attempting to cheer someone up who is sad, and using humor to lighten a tense situation are all examples of how we may help one another regulate emotions (Thompson, 1994). Therefore, emotion regulation frequently occurs in a social context; knowing how to regulate or getting help to regulate one's own emotions becomes an both intrapersonal and interpersonal process.

The caregiving environment and the attachment relationship provide the context for acquiring emotion regulation skills. Bradley (2000) writes, "…failures of caregiving—specifically, insecure attachment and exposure to parental anger and hostility—produce difficulties with affect regulation and leave the developing individual exposed to elevated levels of arousal" (p. 56). The attachment relationship is essentially an emotion regulating system in which caregiver responsivity and accessibility

eventually lead to competent self-regulation of emotion, whereas dismissiveness or unresponsiveness leads to emotion dysregulation (Keenan, 2000).

The attachment relationship facilitates the development of emotion regulation abilities in several ways. The securely attached child develops a confidence that he or she can rely on the caregiver to alleviate distress. Bowlby (1980) referred to this confidence as "felt security." With this assurance, securely attached children have the freedom to learn about emotions, to label and experience feelings, and experiment with coping responses. The child is allowed to express both positive and negative emotions without fear of jeopardizing the integrity of the attachment relationship. Additionally, secure attachment creates a healthy "internal working model" of self in relation to other that serves as a cognitive template for all subsequent relationships. The securely attached child experiences self as loveable and able to elicit nurturing emotion-regulating responses from significant others in the environment. This template is carried forward into future relationships, establishing positive expectations for the accessibility and responsiveness of significant others, but also confidence regarding one's ability to manage stress (Mikulincer et al., 2003).

In stark contrast to the secure attachment relationship is what Linehan (1993) refers to as the "invalidating environment." Linehan, Cochran and Kehrer (2001) hypothesized that such environments, in combination with temperamental vulnerability, are a primary factor contributing to the development of emotion dysregulation. An invalidating environment is characterized by its tendency to negate, trivialize, or even punish the internal experiences (especially emotions) of the child. The child's bids for

emotional soothing manifest through proximity-seeking behavior go unrecognized and invalidated. Individuals raised in invalidating environments never learn to label and modulate their emotions or develop confidence in their ability to tolerate emotional distress. Because they do not trust their emotional responses as valid reflections of environmental events, they look to others for cues on how they should act, think, and feel. Finally, because the ability to develop and maintain intimate relationships is largely dependent upon a stable sense of self and adequate emotion regulation skills, individuals from invalidating environments often experience considerable relationship instability (Fruzetti & Fruzetti, 2003).

Although we often equate "attachment relationships" with childhood, scholars now recognize that attachment relationships remain a critically important coping resource well into adulthood (Johnson & Denton, 2002). However, adult attachment relationships are different from childhood attachment in a number of ways. First, adult attachments are far more reciprocal than attachments formed during childhood. Each partner takes a turn playing the role of caregiver. Adult attachments are less concrete (e.g., less physical touch, less physical dependence) because adults are better able to carry the attachment figure with them through cognitive representations. Finally, sexual behavior is a form of bonding and "holding" in adult relationships, but not in child attachment relationships (Johnson & Denton, 2002).

Secure adult attachment relationships are marked by emotional openness and responsiveness. Each partner has a model of "others" as trustworthy and reliable, and a model of "self" as competent and worthy of nurturance. These "working models" of self

and other allow for more freedom to explore and fully experience one's environment. Positive models of self and other create flexibility in attribution processes, keep one open to new evidence about one's partner, and are associated with the ability to reflect on self and the relationship (Johnson & Denton, 2002). Because securely attached individuals have had repeated experiences with successful repair of relationships, they are not as emotionally reactive to conflict in the relationship. They have confidence that differences can be resolved without jeopardizing the relationship. This confidence allows for the open expression of distress to others and effectiveness in eliciting care and soothing from others (Johnson & Denton, 2002).

On the other hand, insecure attachments are a recipe for emotion dysregulation and relationship instability. Ultimately, there are a limited number of behaviors that people use to cope with insecurity in the attachment relationship. Each adaptation to disruption in the attachment relationship is referred to as an "attachment style" and is associated with its own set of interpersonal behaviors and particular emotion dysregulation tendencies (Mikulincer et al., 2003). When confronted with attachment insecurity, one alternative is for the individual to hyper-activate attachment behaviors (e.g., proximity seeking, emotional connection, exaggerated displays of distress) in an effort to seek reassurance regarding the status of the attachment relationship and to elicit needed soothing (referred to as "preoccupied" or "anxious" attachment). Another alternative is to use avoidance, distancing, dampening of emotional experiencing, and general de-activation of the attachment system to protect self against what is perceived as a rejecting and unresponsive attachment figure (referred to as "avoidant" attachment).

Sometimes individuals exhibit a combination of both strategies (called "disorganized" attachment).

It is not surprising that insecure attachment leads to impaired emotion regulation and relational instability. Unlike secure attachment, "…insecurity acts to constrict and narrow how cognitions and affect are processed and organized, and so constrains key behavioral responses" (Johnson & Denton, 2002, p. 227). Partners develop rigid attributional styles regarding each other's behavior. Their emotional communication becomes constricted and stifled. Instead of eliciting the caregiver's help and support, behaviors associated with insecure attachment (exaggerated emotional displays, seeking reassurance, proximity seeking, or emotional distancing and avoidance), elicit the caregiver's discomfort, withdrawal, or even attack. Therefore, emotions that were intense and overwhelming to begin with become even more aversive as they interfere with the attachment relationship itself (Fosha, 2001, p. 230). For this reason, individuals caught in unhealthy adult attachment relationships can become further emotionally dysregulated, caught in a vicious cycle in which internal emotional dysregulation leads to interpersonal invalidation which leads to more emotional dysregulation and so on. Fear of aloneness, especially in the face of overwhelming emotion, often keeps people in such relationships. Fosha (2001) described the process of increasing emotional impairment in these terms:

> The emotional aloneness that results when emotions disrupt attachment ties is so unbearable that it must be avoided at all costs. When affects threaten their bond with the other, people must find ways to blunt,

> postpone, mute, mask, or distort the experience of emotions. Instead of experiencing feelings and using them to navigate through life, people develop ways of avoiding them… The individual loses access to the adaptive potential associated with the emotion, thus forsaking the growth and enrichment of self and relationships that emotions promote (2001, p. 230).

Although the present study does not include attachment data per se, attachment theory helps us make several predictions regarding the association between emotion regulation and relationship functioning. First, individuals that experience difficulties modulating their emotions will also likely experience difficulty in relationships, not only because of poorly modulated emotion, but also because of negative expectations and beliefs about self in relation to other (since the two are inextricably bound together in their etiology). Second, negative beliefs regarding self and other, in combination with either hyper-activating or de-activating emotion regulation strategies, will interfere with intimacy as well as create distress in the relationship. Third, it is reasonable to expect that partners' of insecurely attached individuals may also have some difficulty regulating their emotions as they try to cope with the behaviors exhibited by their partner.

Previous Research Linking Emotion Dysregulation to Relationship Functioning

Despite the seemingly obvious centrality of emotion to relationship functioning, there is surprisingly little research that has specifically addressed the connection between emotion dysregulation and relationship functioning. A study by Richards, Butler and Gross (2003) explored the effect of two different emotion regulation strategies

(reappraisal vs. suppression) on memory for conversations and memory for emotions in intimate relationships. Eighty-six college-age dating couples engaged in a discussion about a past conflict in their relationship. Individuals that used reappraisal as a strategy for managing their emotions during the conversation showed better memory for the content of the discussion. On the other hand, individuals that were instructed to use suppression to manage their emotions during the conversation showed poorer memory for conversation details, but better memory for their own emotional state.

A study investigating the connection between various aspects of emotional intelligence (e.g., perceiving emotions, using emotions to facilitate thinking, understanding emotions, and managing emotions) and social interaction found that the ability to manage emotions was a better predictor of the quality of social interactions than were other aspects of emotional intelligence. The managing-emotions subscale of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) was positively correlated with quality of relationships with friends, as perceived by self and peers, even after controlling for Big Five personality traits (Lopes et al., 2004).

Other support for the emotion dysregulation-relationship link comes in the form of research documenting the comorbidity between various forms of psychopathology and relationship distress (Snyder & Whisman, 2003). It is has been estimated that as many as 65% of psychological disorders include some kind of disturbance in emotional processing (Thoits, 1985). Disruption of emotional processes is so common in psychopathology that people frequently use terms such as “emotionally disturbed,” “emotional problems,” or “emotional disorder” in reference to individuals suffering from

mental illness. A quick survey of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 1994) reveals the variety of ways in which emotion processes can be disrupted in psychopathology. An epidemiological study by Whisman, Sheldon, and Goering (2000) using reports from spouses of individuals diagnosed with a psychiatric disorder found higher than expected rates of marital distress.

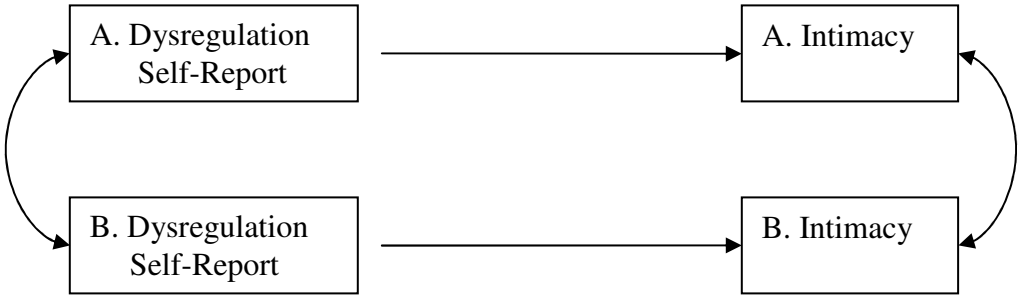
Although not specifically conducted under the rubric of "emotion regulation," research by Gottman and colleagues (Driver, Tabares, Shapiro, Nahm, & Gottman, 2003; Gottman 1999; Gottman, Driver, & Tabares, 2002; Gottman & Levenson, 2000) has produced important information regarding emotional processes in couple relationships. First, observational and physiologic data collected on couples while engaging in conversations about areas of conflict in their relationship support the idea that relationships are, in fact, highly emotional as evidenced by diffuse physiological arousal or "emotional flooding." Second, this kind of emotional flooding has been associated with certain types of behaviors during conflict discussions including criticism, contempt, defensiveness, and stonewalling. When present in couples' interactions, these behaviors have been shown to predict divorce with a high degree of accuracy. Third, escalating patterns of negative reciprocity in which partners respond to negativity with a higher degree of negativity have been associated with subsequent divorce. Finally, marital happiness appears to depend largely on the number of expressed positive emotions outweighing the number of expressed negative emotions in a ratio of at least 5

to 1. In this respect, happier, non-divorcing couples appear to use positive emotions as one way to regulate negative emotions in their relationship.

Purpose of the Present Study

The purpose of the present study was to explore the linkages between emotion dysregulation and relationship functioning using both self-reports and partner-reports of emotion regulation difficulties. Specifically, we tested 12 models exploring the connection between aspects of emotion management (e.g., the tendency to lose control of one's emotions and the capacity to regain control once it has been lost) and key relationship variables (e.g., intimacy and distress). We were also interested in understanding how perceptions and beliefs about one's partner's ability to manage emotion relate to both partners' experience of intimacy and distress in the relationship. Each model tested three main effects: actor effects (the impact of an individual's independent variable on their own dependent variable), partner effects (the impact of their partner's independent variable on their dependent variable), and gender. Six of the twelve models tested used self-reports of emotion regulation as independent variables to predict either relationship intimacy or distress. The remaining six models replicated the same models using partner reports of emotion regulation variables. Four of the twelve models used a (dysregulation-×-re-regulation) product term created from either self-report or partner-report data to predict intimacy and distress in the relationship. The twelve models that were tested are depicted in Figures 1-12.

ACTOR EFFECTS



PARTNER EFFECTS

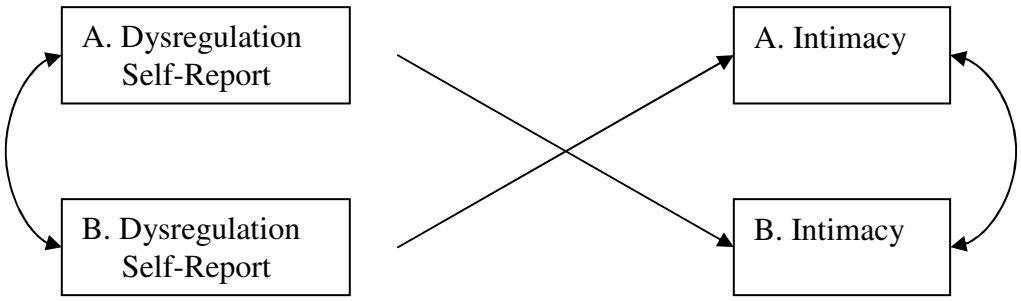
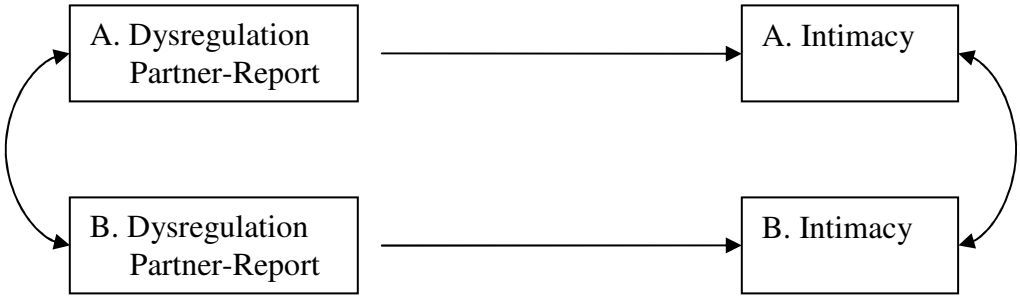


Figure 1: The effect of emotion dysregulation on reports of intimacy (Model 1).

ACTOR EFFECTS



PARTNER EFFECTS

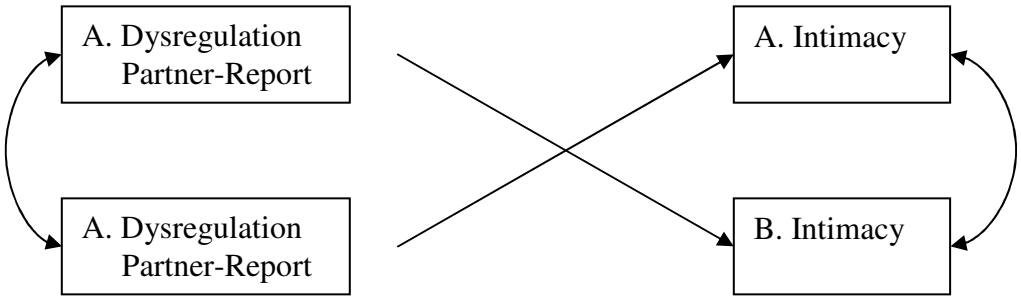
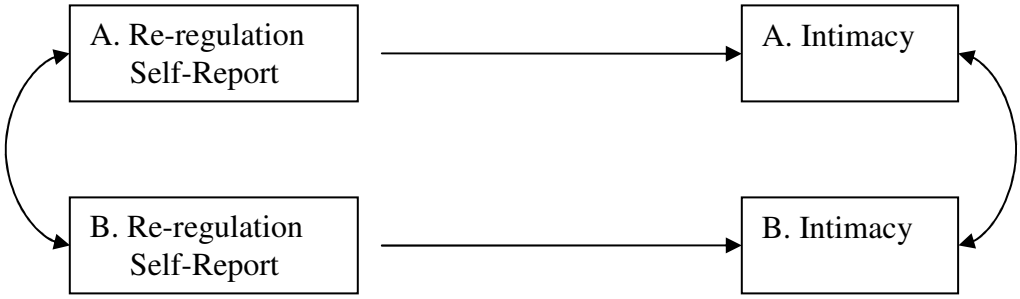


Figure 2: The effect of partner-reported emotion dysregulation on reports of intimacy (Model 2).

ACTOR EFFECTS



PARTNER EFFECTS

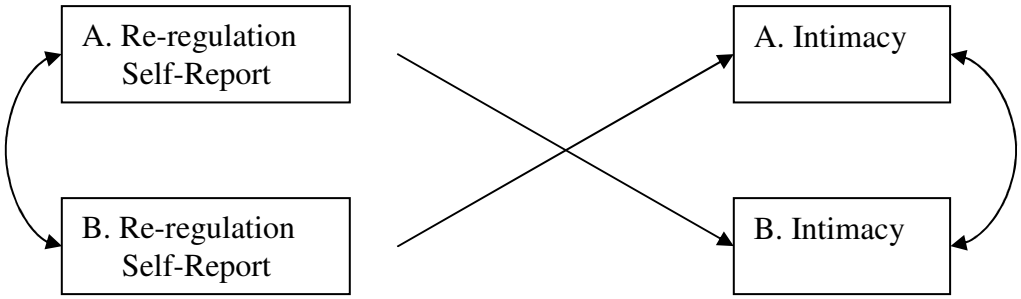
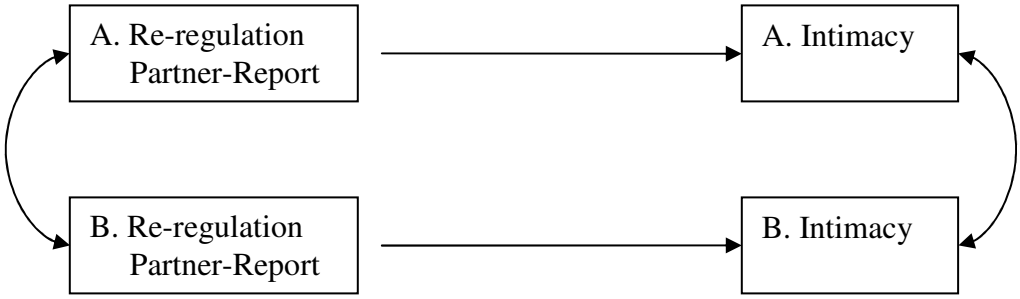


Figure 3: The effect of self-reported emotion re-regulation on reports of intimacy (Model 3).

ACTOR EFFECTS



PARTNER EFFECTS

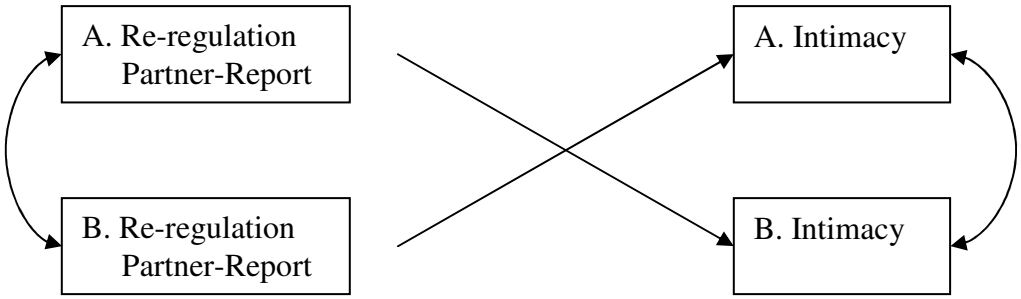
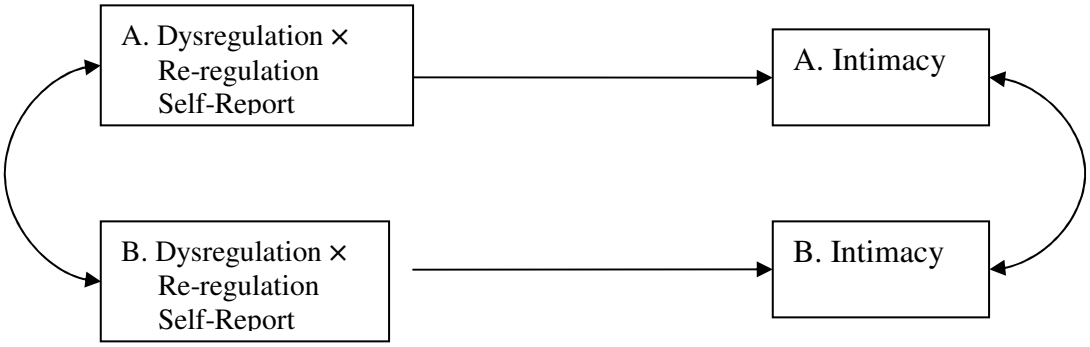


Figure 4: The effect of partner-reported emotion re-regulation on reports of intimacy (Model 4).

ACTOR EFFECTS



PARTNER EFFECTS

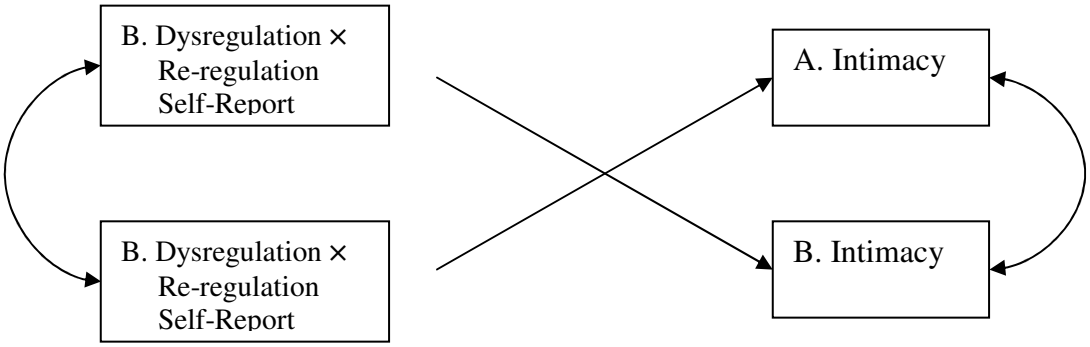
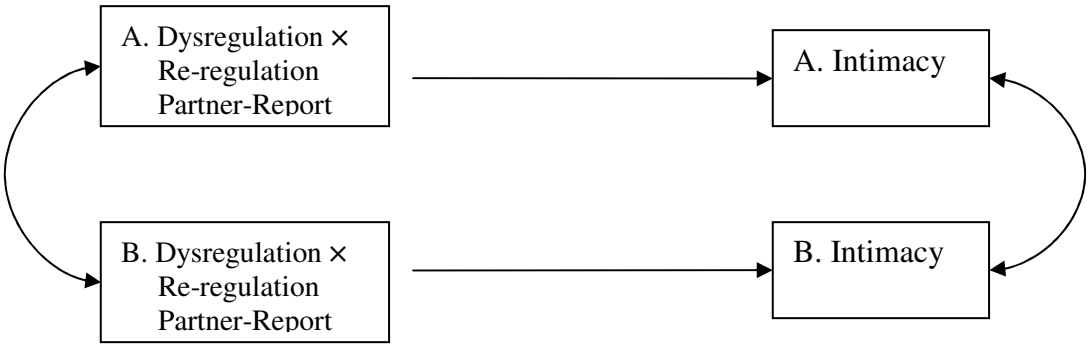


Figure 5: The effect of self-reported dysregulation-×-re-regulation product term on reports of intimacy (Model 5).

ACTOR EFFECTS



PARTNER EFFECTS

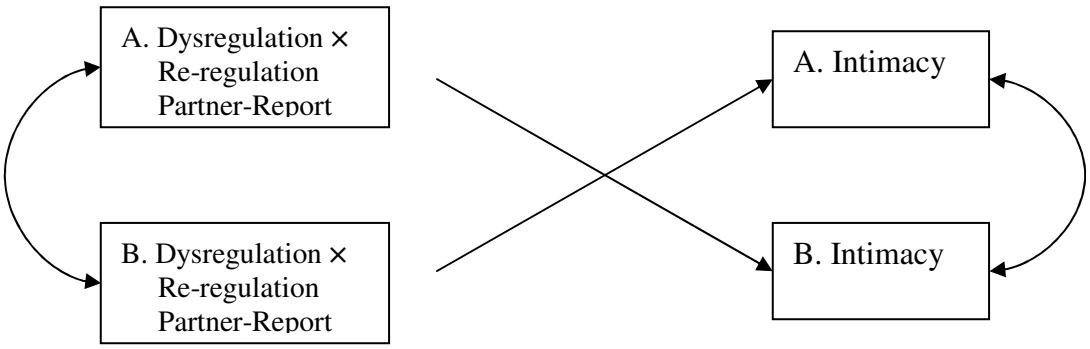
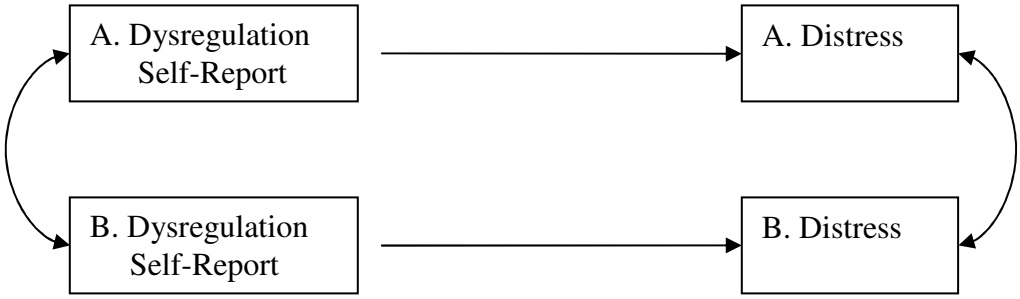


Figure 6: The effect of partner-reported dysregulation-×-re-regulation product term on reports of intimacy (Model 6).

ACTOR EFFECTS



PARTNER EFFECTS

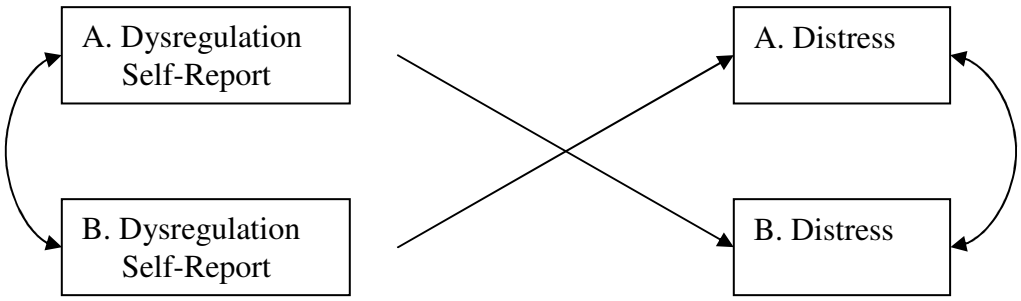
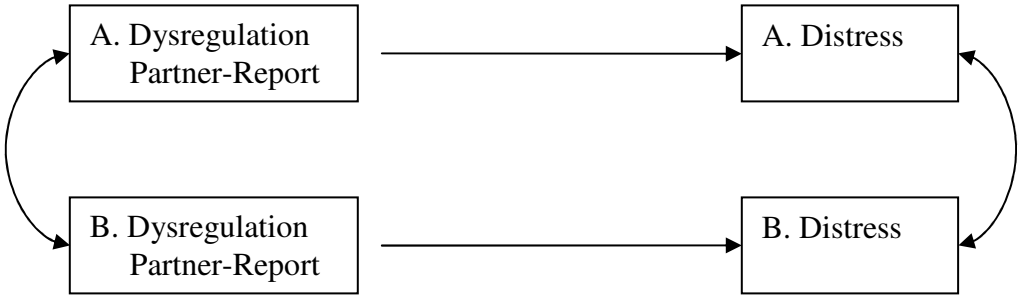


Figure 7: The effect of emotion dysregulation on reports of relationship distress (Model 7).

ACTOR EFFECTS



PARTNER EFFECTS

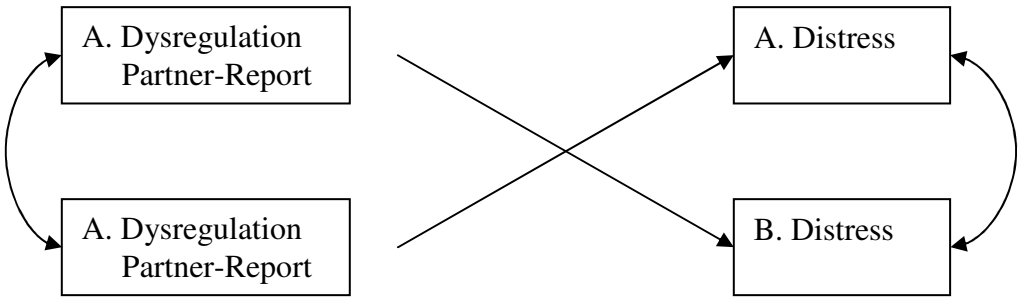
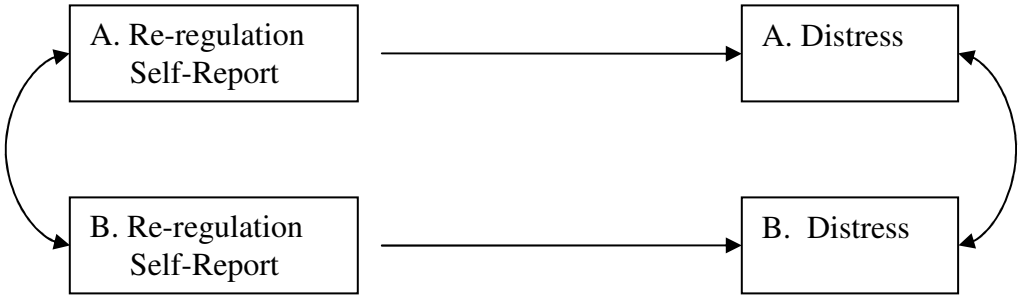


Figure 8: The effect of partner-reported emotion dysregulation on reports of relationship distress (Model 8).

ACTOR EFFECTS



PARTNER EFFECTS

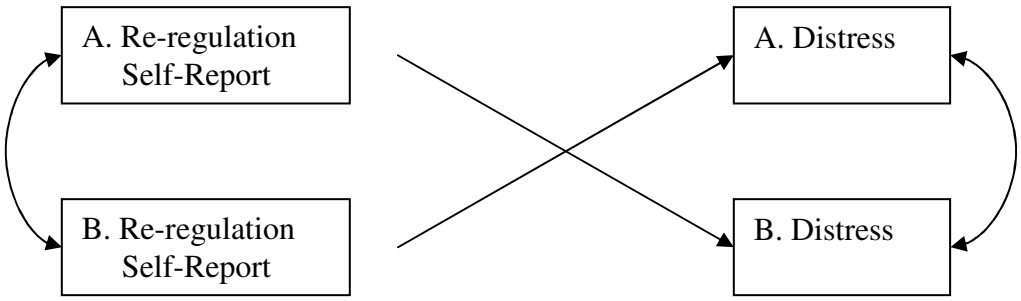
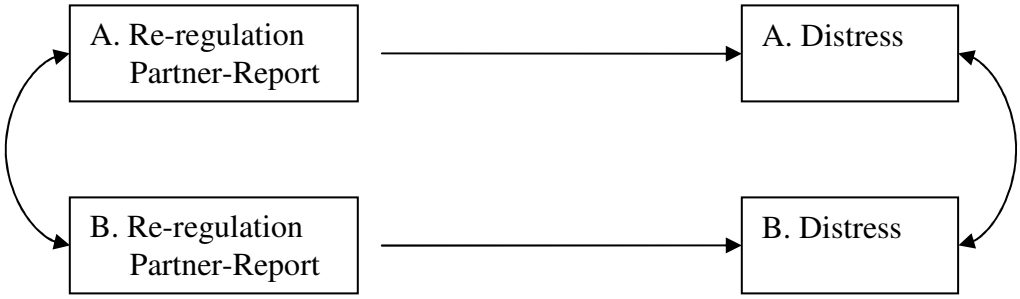


Figure 9: The effect of self-reported emotion re-regulation on reports of relationship distress (Model 9).

ACTOR EFFECTS



PARTNER EFFECTS

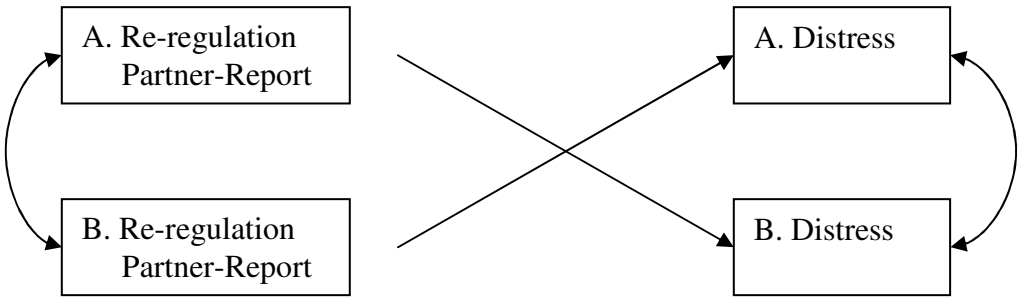
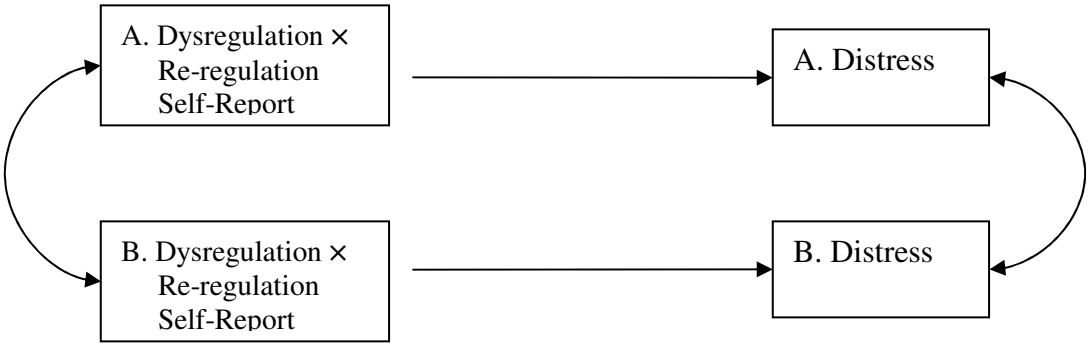


Figure 10: The effect of partner-reported emotion re-regulation on reports of relationship distress (Model 10).

ACTOR EFFECTS



PARTNER EFFECTS

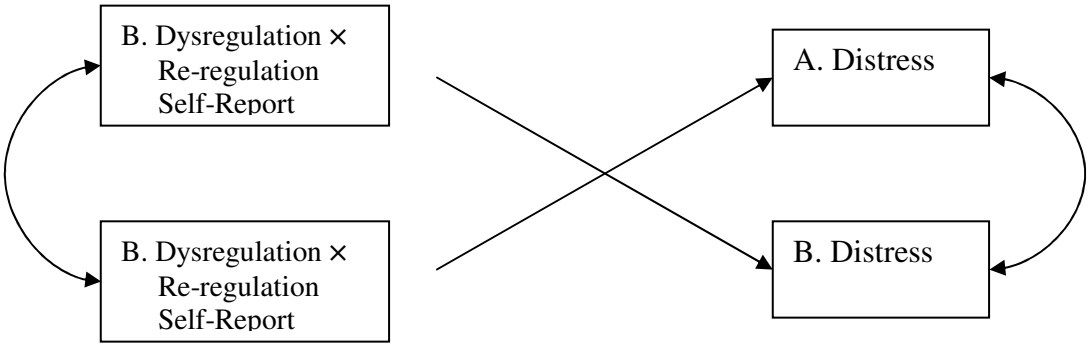
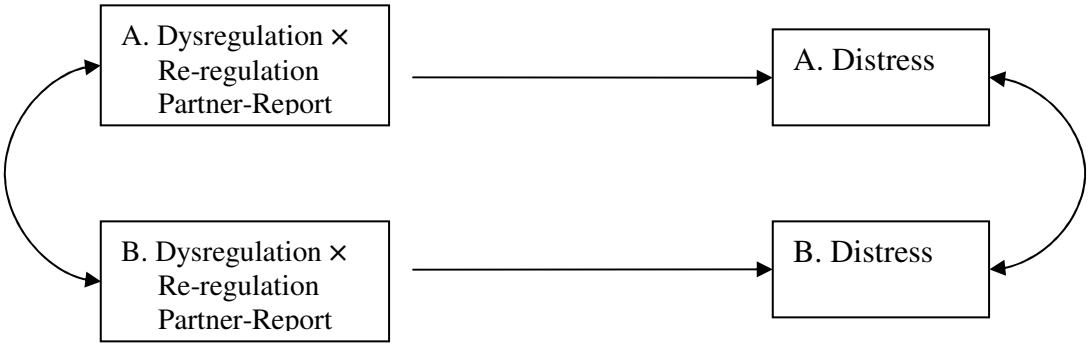


Figure 11: The effect of self-reported dysregulation-×-re-regulation product term on reports of relationship distress (Model 11).

ACTOR EFFECTS



PARTNER EFFECTS

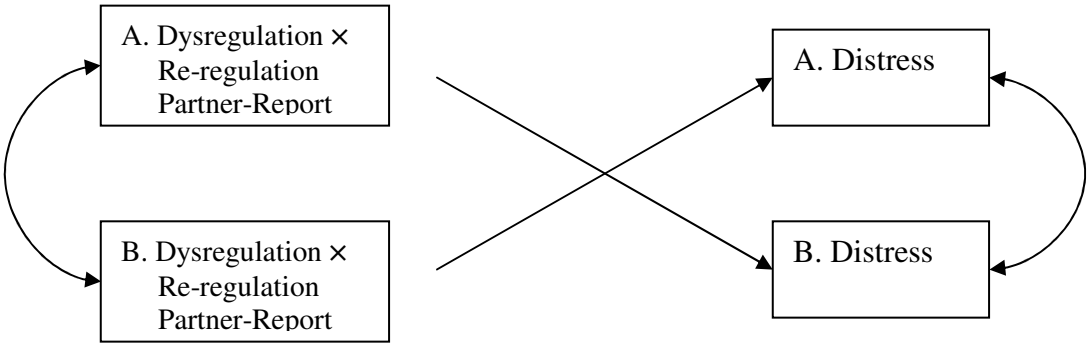


Figure 12: The effect of partner-reported dysregulation-×-re-regulation product term on reports of relationship distress (Model 12).

HYPOTHESES

The hypotheses for this study followed directly from the literature already reviewed and were organized in accordance with the models previously described. In general, we expect to find significant actor and partner effects for all models included in the study linking self and partner reports of emotion regulation to reports of intimacy and distress in the relationship. In all cases, we expect that higher levels of emotion dysregulation and difficulty with emotion re-regulation will be associated with less intimacy and more distress in the relationship. We anticipate that gender main effects will be nonsignificant suggesting that men and women do not differ significantly on the dependent variables of relationship intimacy and distress. We also expected that gender-moderated actor and partner effects will be nonsignificant indicating that men and women do not differ in the way that emotion dysregulation and re-regulation impact relationship functioning. Specific hypotheses pertaining to each model are as follows:

Model 1 Hypotheses (see Figure 1):

- Actor's self-reported emotion dysregulation will predict his or her own experience of intimacy in the relationship.
- Partner's self-reported emotion dysregulation will predict the actor's experience of intimacy in the relationship.

Model 2 Hypotheses (see Figure 2):

- Actor's rating of their partner's emotion dysregulation will predict his or her own experience of intimacy in the relationship.

- Partner's rating of the actor's emotion dysregulation will predict the actor's experience of intimacy in the relationship.

Model 3 Hypotheses (see Figure 3):

- Actor's self-reported emotion re-regulation difficulties will predict his or her own experience of intimacy in the relationship.
- Partner's self-reported emotion re-regulation difficulties will predict the actor's experience of intimacy in the relationship.

Model 4 Hypotheses (see Figure 4):

- Actor's rating of their partner's emotion re-regulation difficulties will predict his or her own experience of intimacy in the relationship.
- Partner's rating of the actor's emotion re-regulation difficulties will predict the actor's experience of intimacy in the relationship.

Model 5 Hypotheses (see Figure 5):

- The product term of the actor's self-reported emotion dysregulation and emotion re-regulation difficulties will predict their own experience of intimacy in the relationship.
- The product term of the partner's self-reported emotion dysregulation and emotion re-regulation difficulties will predict the actor's experience of intimacy in the relationship.

Model 6 Hypotheses (see Figure 6):

- The product term of the actor's rating of their partner's emotion dysregulation and emotion re-regulation difficulties will predict his or her own experience of intimacy in the relationship.
- The product term of the partner's rating of the actor's emotion dysregulation and emotion re-regulation difficulties will predict the actor's experience of intimacy in the relationship.

Model 7 Hypotheses (see Figure 7):

- Actor's self-reported emotion dysregulation will predict his or her own experience of distress in the relationship.
- Partner's self-reported emotion dysregulation will predict the actor's experience of distress in the relationship.

Model 8 Hypotheses (see Figure 8):

- Actor's rating of their partner's emotion dysregulation will predict his or her own experience of distress in the relationship.
- Partner's rating of the actor's emotion dysregulation will predict the actor's experience of distress in the relationship.

Model 9 Hypotheses (see Figure 9):

- Actor's self-reported emotion re-regulation difficulties will predict his or her own experience of distress in the relationship.
- Partner's self-reported emotion re-regulation difficulties will predict the actor's experience of distress in the relationship.

Model 10 Hypotheses (see Figure 10):

- Actor's rating of their partner's emotion re-regulation difficulties will predict his or her own experience of distress in the relationship.
- Partner's rating of the actor's emotion re-regulation difficulties will predict the actor's experience of distress in the relationship.

Model 11 Hypotheses (see Figure 11):

- The product term of the actor's self-reported emotion dysregulation and emotion re-regulation difficulties will predict their own experience of distress in the relationship.
- The product term of the partner's self-reported emotion dysregulation and emotion re-regulation difficulties will predict the actor's experience of distress in the relationship.

Model 12 Hypotheses (see Figure 12):

- The product term of the actor's rating of their partner's emotion dysregulation and emotion re-regulation difficulties will predict his or her own experience of distress in the relationship.
- The product term of the partner's rating of the actor's emotion dysregulation and emotion re-regulation difficulties will predict the actor's experience of distress in the relationship.

METHOD

Participants

A phone sampling technique was used to recruit one hundred and eight cohabiting couples from the community surrounding Texas A&M University. Participants were randomly selected from the phonebook and invited to participate in the study examining the association between emotion and relationship closeness. Between 15-20% of eligible couples contacted chose to participate in the study. Participants were also invited to share information regarding the study with eligible acquaintances, which resulted in approximately 10 additional couples joining the study. Eligibility requirements stipulated that individuals had to be in a cohabiting opposite-sex relationship for longer than six months, had to be at least 18 years of age, and both partners must agree to participate. As partial compensation for their participation, couples were entered into a drawing to win prizes for free goods and services in the community.

The average age of participants was 41 years (*SD* = 14.9), with no significant differences between men and women. Participants averaged 16 years of education (*SD* = 2.7). Eighty-eight percent of the couples were married (*n* = 95), with 13 unmarried cohabitating couples. Length of relationship ranged from 6 months cohabitating to 54 years of marriage with an average of 13.5 years (*SD* =13.6). Twenty-six percent of the sample reported one or more previous marriages. The vast majority of the sample was Caucasian (*n* = 198), with relatively few minority participants (*n* = 18). Men and women's average scores on the Global Distress Scale (GDS) of the Marital Satisfaction

Inventory-Revised (MSI-R) were respectively, 42.74 and 46.16, indicating that, overall, the sample reported somewhat less global relationship distress than the WPS MSI-R standardization sample.

Procedure

Participating couples were given the option either to have research team members come to their home to collect data or come to the Psychology Clinic at Texas A&M University for data collection. The majority of couples chose to have data collected in their homes (n = 73) and the remaining thirty-two percent of the couples came to the research lab for the study (n = 35). Participants privately and independently completed a battery of self-report measures assessing various aspects of their relationship and individual emotional functioning. Their results were not shared with the other partner. Immediately afterward, couples engaged in a series of videotaped discussions intended to elicit self-disclosure and empathic responding. The current study uses portions of the initial self-report data, but does not include subsequent observational data. The entire procedure took couples approximately 1 ½ hours to complete.

Measures

Predictor variables. Self and partner reports of emotion dysregulation and emotion re-regulation were either subscales or derivations of subscales taken from the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The DERS is a 36-item multidimensional self-report measure assessing individuals' characteristic patterns of emotion dysregulation. It contains six subscales that were theoretically

formulated and confirmed through factor analysis. The six subscales are: Nonacceptance of Emotional Responses (NONACCEPTANCE), Difficulties Engaging in Goal-Directed Behavior (GOALS), Impulse Control Difficulties (IMPULSE), Lack of Emotional Awareness (AWARENESS), Limited Access to Emotion Regulation Strategies (STRATEGIES), and Lack of Emotional Clarity (CLARITY). Although the DERS is a relatively new measure, preliminary empirical studies have been promising. It has exhibited good overall internal consistency ($\alpha = .93$) and adequate subscale reliability with Cronbach's $\alpha > .80$ for each subscale (Gratz & Roemer, 2004).

Only the IMPULSE and STRATEGIES subscales were included in the present analyses. The IMPULSE subscale served as the self-report measure of emotion dysregulation. It is composed of five items assessing the tendency for an individual to "lose control" of their emotions and behavior during periods of emotional turmoil. Gratz and Roemer (2004) reported that the scale has a Cronbach's alpha = .86 and a mean interitem correlation = .52. The Cronbach's alpha coefficient computed for this study (alpha = .86) was comparable to that reported by the scale developers. Scale items were reverse scored so that higher scores reflect less emotion dysregulation and a greater capacity to manage one's emotions without feeling overwhelmed or out of control.

The STRATEGIES subscale served as the self-report measure of emotion re-regulation difficulties. It is composed of eight items assessing an individual's capacity to restore emotional control and equilibrium after becoming emotionally upset. Gratz and Roemer (2004) reported that the scale has a Cronbach's alpha = .88 and a mean interitem correlation = .47. Reliability analysis of this scale for this study yielded

a satisfactory alpha of .79. Scale items were reverse scored so that higher scores reflect fewer difficulties with emotion re-regulation and a greater capacity to restore emotional equilibrium after becoming upset.

Partner-report versions of both scales were formed by adapting individual scale items to be answered by individuals regarding their partner's emotional functioning. Several items were not retained in the partner-report scale versions because they referred to subjective emotional states and therefore did not lend themselves to adaptation. The final versions of both scales consisted of four items derived from their respective self-report counterparts. Chronbach's alpha coefficients for the partner-report versions of the IMPULSE and STRATEGIES subscales were respectively, .86 and .79, indicating satisfactory scale reliability. As with self-report measures of emotion dysregulation and re-regulation, partner-report measures were reverse scored so that higher scores indicated less difficulty with emotion dysregulation and less difficulty regaining control of one's emotions. Conversely, lower scores indicated greater difficulty in these areas.

The other predictor variables included in the analyses use dysregulation-×-re-regulation product terms created by multiplying the emotion dysregulation variable by the emotion re-regulation variable. Theoretically, it represents the tendency of a given individual to have difficulties both in staying in control of their emotions and difficulty regaining emotional control one it has been lost. The dysregulation-×-re-regulation product term was created both for self-report and partner-report variables.

Outcome variables. Relationship distress was measured using the Global Distress Scale (GDS) from the Marital Satisfaction Inventory-Revised (MSI-R; Snyder, 1997). The MSI-R is a widely used and well-established measure of marital functioning that has good reliability and validity. Internal consistency of the GDS in this study was satisfactory, as demonstrated by an alpha coefficient of .89. The Global Distress Scale is composed of 22 True/False items assessing general marital dissatisfaction that indicates discontent, chronic disharmony, and thoughts about ending the relationship. As an overall measure of relationship distress, the Global Distress (GDS) scale has displayed high correlations with the Locke-Wallace (Locke & Wallace, 1959), Marital Adjustment Test (Snyder, 1979), and Spanier's (1976) Dyadic Adjustment Scale (Snyder & Wills, 1989).

Relationship intimacy was measured using the Emotional Intimacy Scale of the Personal Assessment of Intimacy in Relationships (PAIR; Schaefer & Olson, 1981). The Emotional Intimacy Scale has 6 items and uses a 5-point Likert scale (strongly agree to strongly disagree) to assess partners' overall perceived intimacy in the relationship. Items are summed to yield a total score for this subscale, with a higher number indicating greater relationship intimacy. In this study, the PAIR showed satisfactory reliability as demonstrated by a Chronbach's alpha of .83. The PAIR is one of the most commonly used measures of relationship intimacy for both clinic and community couples (Denton, Burleson, Clark, Rodriguez, & Hobbs, 2000; Talmadge & Dabbs, 1990).

STATISTICAL ANALYSES OF DYADIC DATA

Data Analytic Strategy

Data collected from couples, such as in the present study, present unique challenges in terms of statistical analysis. When data are collected from both partners in a dyad it is very likely (and we would even hope) that the partners' responses will be related to each by virtue of the relationship that they share. However, the fact that a given individual's score is more closely related to his or her partner's score than to any other observation in the data set violates the assumption of independence of observations required for many types of statistical analyses. Some researchers have chosen to ignore the issue of interdependence in dyadic data, but this creates at least two additional problems. First, ignoring issues of interdependence in test data can result in biased *p* values; this in turn can lead to mistaken conclusions about the relations being studied (Kenny, 1995). Another, possibly more serious, omission is that such procedures fail to take advantage of the inherently relational aspect of the data, which is presumably why researchers are studying people in relationships in the first place (Kenny & Cook, 1999).

In order to address the data analytic issues described, the current data were analyzed using a type of multilevel modeling called the Actor-Partner Interdependence Model (APIM) proposed Kenny and colleagues (Campbell & Kashy, 2002; Kashy & Kenny, 2000; Kenny & Cook, 1999). The APIM is designed to take advantage of the relational aspect of couple data because it actually incorporates nonindependence into the model by providing estimates for the influence that each partner has on the other.

Figure 13 is a depiction of the APIM method and the various relations that it examines. Within the model, couple is the unit of analysis and each partner has an independent variable or predictor score (depicted as M1 and F1) as well as a score on the dependent variable (depicted as M2 and F2). The effect of an individual's predictor variable (i.e. emotion dysregulation) on his own dependent variable (i.e. intimacy) is termed an *actor effect* (M1→M2; F1→F2). The effect of an individual's independent variable (i.e. emotion dysregulation) on their partner's dependent variable (i.e. intimacy) is termed a *partner effect* (M1→F2; F1→M2) and is essentially an estimation of the degree of interdependence or relational component present in the data. Even after variance in the dependent variable has been accounted for by actor and partner effects, there may still be residual interdependence in partners' scores due to other similarities that may exist between them (e.g., age, culture, socioeconomic status) or other ways in which they may reciprocally influence each other. This correlated error is denoted in Figure 1 as (e1→e2).

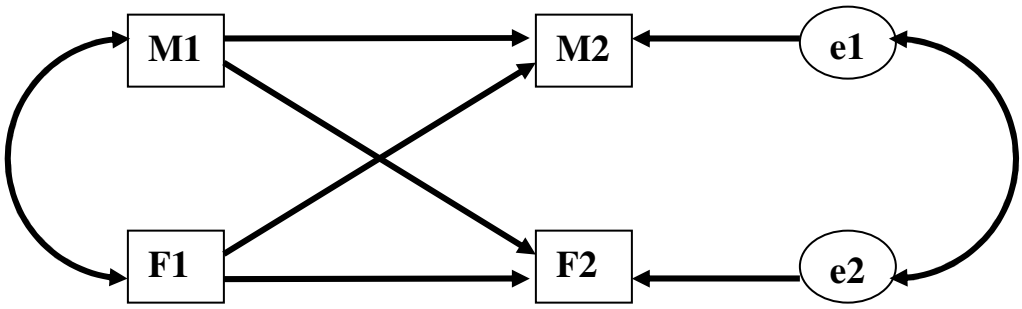


Figure 13: The actor-partner interdependence model (adapted from Kenny & Cook, 1999). M1 and M2 denote male partner predictor and outcome variables, F1 and F2 denote female partner predictor and outcome variables, and e1 and e2 denote the residual error associated with the outcome variable, after the effect of interpersonal influence has been controlled.

RESULTS

Interdependence

The degree of interdependence in partners' outcome scores was assessed by computing intraclass correlations (ICC) for each outcome variable. In general, the results indicated a high degree of interdependence in the data. For instance, 49% of the variance in intimacy scores was accounted for by the particular dyad to which an individual belongs [ICC =.487, $p < .01$]. For relationship distress, 46% of the variation in scores was accounted for by the particular dyad to which an individual belongs [ICC =.458, $p < .01$]. These moderate to high correlations in partners' outcome scores indicate that the assumption of independence of observations has been violated and support the use of the APIM analytic strategy.

Gender

Means and standard deviations for all study variables broken down by gender are displayed in Table 1. Mean comparisons using paired t-tests revealed small differences between men and women on all variables. Specifically, women reported experiencing slightly more emotion dysregulation [$t(107) = 2.32$, $p < .05$] and somewhat more difficulty with emotion re-regulation [$t(107) = 2.47$, $p < .05$] compared to men. Interestingly, partner-ratings of emotion regulation variables were consistent in that men rated their female partners as having somewhat more difficulty with emotional dysregulation [$t(107) = -2.00$, $p < .05$] and re-regulation [$t(107) = -2.48$, $p < .05$], whereas women rated their male partners as having less difficulty in these domains. Men also reported experiencing slightly higher levels of intimacy [$t(107) = 2.43$, $p < .05$]

Table 1
Means, Standard Deviations, and Mean Comparisons for Study Variables Broken Down by Gender

Variable	Men		Women		Statistic
	M	*SD*	*M*	*SD*	*t* (107)
Emotion Dysregulation					
Self-rating	27.55	2.56	26.44	4.26	2.43*
Partner-rating	16.80	2.97	17.61	3.28	-2.00*
Emotion Re-regulation					
Self-rating	35.99	3.82	34.54	4.77	2.48*
Partner-rating	15.39	3.97	16.63	3.88	-2.32*
Intimacy	23.90	4.29	22.83	4.83	2.43*
Relationship Distress	42.74	14.12	46.16	16.28	-2.21*

*$p < .05$

and less distress [$t(107) = -2.47$, $p < .05$] compared to their female partners. It should be noted that although the mean differences are statistically significant, the actual score differences on these variables remain comparatively small (Cohen's *d* effect size coefficients ranged from .27 to .33) and should be interpreted accordingly.

Structure of the APIM Analyses

Overall, study variables were moderately related to each other. The degree of agreement between partners in how they rated each other on the predictor variables of emotion dysregulation and emotion re-regulation was relatively low, ($r = .14$ and $r = .18$, respectively). On the other hand, the way that individuals rated themselves and their partner across measures of emotion dysregulation and re-regulation showed much greater concordance ($r = .62$ for self-ratings and $r = .59$ for partner-ratings). Means, standard deviations, and zero-order correlations of study variables broken down by gender can be found in Table 2.

Prior to conducting APIM analyses, self-report and partner-report predictor variables were factor analyzed to ensure that they were, in fact, measuring different aspects of emotion regulation rather than a single dimension. Results from a principal components analysis with varimax rotation of the self-report emotion dysregulation and re-regulation measures are displayed in Table 3. Because items from the two scales loaded primarily on one of two factors, the results support findings from previous analyses conducted by Gratz and Roemer (2003) indicating that the scales are measuring theoretically related, but conceptually distinct constructs. The first two factors had

Table 2
Means, Standard Deviations, and Zero-Order Correlations for Study Variables Broken Down by Gender

Variable	1	2	3	4	5	6
1. Emotion Dysregulation (self-rating)	--	.22*	.55***	.25**	.33**	-.41***
2. Emotion Dysregulation (partner-rating)	.13	--	.18	.66***	.44***	-.39***
3. Emotion Re-regulation (self-rating)	.65***	.28**	--	.22*	.39***	-.35***
4. Emotion Re-regulation (partner-rating)	.08	.52***	.20*	--	.45***	-.38***
5. Intimacy	.27**	.41***	.37***	.30**	--	-.65***
6. Relationship Distress	-.30**	-.32**	-.27**	-.22*	-.76***	--
M	26.99	17.20	35.26	16.01	23.37	3.13
SD	3.55	3.15	4.37	3.96	4.59	4.04

Note. Correlations for men are located above the diagonal. Correlations for women are located below the diagonal. Means and standard deviations are pooled across gender.
*$p < .05$, **$p < .01$, ***$p < .001$

Table 3
Factor Loadings for Self-Report Scales of Emotion Dysregulation and Difficulties with Emotion Re-regulation

Item	Factor 1	Factor 2
When I'm upset, I lose control over my behaviors	**.859**	.205
When I'm upset, I become out of control	**.853**	.187
When I'm upset, I have difficulty controlling my behaviors	**.816**	.141
When I'm upset, I feel out of control	**.771**	.341
I experience my emotions as overwhelming and out of control	**.665**	.252
When I'm upset, I feel like I can remain in control of my behaviors	**.551**	.267
When I'm upset, I believe that I'll end up feeling very depressed	.229	**.655**
When I'm upset, it takes me a long time to feel better	.260	**.652**
When I'm upset, I believe that wallowing in it is all I can do	.122	**.645**
When I'm upset, my emotions feel overwhelming	.450	**.623**
When I'm upset, I start to feel very bad about myself	.180	**.599**
When I'm upset, I believe that I will remain that way for a long time	.326	**.533**
When I'm upset, I believe that there is nothing I can do to make myself feel better	.042	**.522**
When I'm upset, I know that I can find a way to eventually feel better	.172	**.515**

Note. Extraction Method: Principal Components Analysis. Rotation Method: Varimax with Kaiser Normalization.

Table 4
Factor Loadings for Partner-Report Scales of Emotion Dysregulation and Difficulties with Emotion Re-regulation

Item	Factor 1	Factor 2
Once my partner is upset, it takes him/her a long time to feel better	**.913**	.179
Once my partner is upset, he/she remains that way for a long time	**.898**	.213
Once my partner is upset, he/she tends to wallow in his emotions	**.803**	.340
Once my partner is upset, he/she soon finds a way to get over it	**.712**	.121
When my partner is upset, he/she appears overwhelmed by his emotions	.646	**.498**
When my partner is upset, he/she loses control over his behaviors	.202	**.901**
When my partner is upset, he/she has difficulty controlling his behaviors	.226	**.899**
When my partner is upset, he becomes out of control	.228	**.832**

Note. Extraction Method: Principal Components Analysis; Rotation Method: Varimax with Kaiser Normalization

initial eigenvalues of 5.77 and 1.41, respectively, and together accounted for 51.24% of the total variance. Factor loadings for the emotion dysregulation (IMPULSE) scale ranged from .86 to .55. Factor loadings for the emotion re-regulation (STRATEGIES) scale ranged from .66 to .52.

Results from the analysis of the partner-report emotion dysregulation and re-regulation scales yielded similar results (see Table 4). The first two factors had initial eigenvalues of 4.70 and 1.43, respectively, and together accounted for 76.53% of the total variance. All items except one, loaded as expected on the two factors. However, the item reading, "When my partner is upset, he/she appears overwhelmed by his emotions" had moderate loadings on both factors (.66 and .50), with the higher loading going to the factor representing the other scale. Despite the dual factor loadings, this item was retained as part of the difficulties with re-regulation scale to preserve the parallel format between self-report and partner-report measures.

In the following APIM analyses, all predictor and outcome variables were converted to Z-scores to facilitate interpretation of results across variables and analyses. By using a common metric for all variables, estimates for actor, partner, and interaction effects become standardized regression coefficients, having the same meaning across analyses. Effect coding was used for gender with men being coded as 1 and women as -1. Such coding facilitated interpretation of regression coefficients because the valence of the coefficient was linked to the direction of the effect (positive for men, negative for women).

A series of six multilevel models were run separately for each outcome variable (i.e., intimacy and relationship distress) resulting in twelve separate analyses. The series of six models that was tested first for intimacy and then for relationship distress were as follows: (1) self-rating of emotion dysregulation, (2) partner-rating of emotion dysregulation, (3) self-rating of emotion re-regulation, (4) partner-rating of emotion re-regulation, (5) dysregulation-×-re-regulation product term (self-report), and (6) dysregulation-×-re-regulation product term (partner-report). Figures 1 through 12 provide graphical depictions of these models. Results for models using intimacy as the outcome variable are shown in Table 5 and results for models using relationship distress as the outcome variable are displayed in Table 6.

Intimacy

Model 1. In the first model, gender, actor's self-report of emotion dysregulation, and their partner's self-report of emotion dysregulation were entered as independent variables with intimacy serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's emotion dysregulation affects his or her own experience of intimacy in the relationship (see Figure 1). This value was $b = .314$, $t(168) = 4.48$, $p < .001$ (see Table 5), indicating that, holding other predictor variables constant, for each standard deviation unit increase in emotion regulation, a person's report of intimacy increases .314 standard deviations. The partner effect was also significant [$b = .174$, $t(146) = 2.31$, $p < .05$]. It estimates the degree to which a partner's self-reported emotion dysregulation impacts the actor's experience of intimacy while

Table 5
Summary of APIM Main Effects for Reports of Intimacy

Model#	Variable	Actor Effect *b*	Actor Effect *t*	Partner Effect *b*	Partner Effect *t*
Emotion Dysregulation					
1	Self-rating	.314	4.48***	.174	2.31*
2	Partner-rating	.396	6.82***	.314	5.34***
Emotion Re-regulation					
3	Self-rating	.387	6.12***	.189	2.90**
4	Partner-rating	.332	5.61***	.344	5.84***
Dysregulation-×-Re-regulation					
5	Self-rating	.387	6.12***	.194	2.91**
6	Partner-rating	.381	6.66***	.358	6.28***

Note. Values in table are standardized regression coefficients.
*$p < .05$, **$p < .01$, ***$p < .001$

Table 6
Summary of APIM Main Effects for Reports of Relationship Distress

Model#	Variable	Actor Effect *b*	Actor Effect *t*	Partner Effect *b*	Partner Effect *t*
Emotion Dysregulation					
7	Self-rating	-.374	-5.51***	-.163	-2.16*
8	Partner-rating	-.324	-5.37***	-.301	-4.87***
Emotion Re-regulation					
9	Self-rating	-.309	-4.74***	-.178	-2.61*
10	Partner-rating	-.258	-4.08***	-.246	-3.91***
Dysregulation-×-Re-regulation					
11	Self-rating	-.368	-5.78***	-.180	-2.62*
12	Partner-rating	-.291	-4.72***	-.285	-4.62***

Note. Values in table are standardized regression coefficients.
*$p < .05$, **$p < .01$, ***$p < .001$

controlling for the actor effect. The gender main effect and gender-moderated actor and partner effects were not significant.

Model 2. In the second model, gender, actor's report of their partner's emotion dysregulation, and their partner's report of the actor's emotion dysregulation were entered as independent variables with intimacy serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's perception of their partner's emotion dysregulation affects his or her own experience of intimacy in the relationship (see Figure 2). This value was $b = .396$, $t(193) = 6.82$, $p < .001$ (see Table 5), indicating that, holding other predictor variables constant, for each standard deviation unit increase in emotion regulation, a person's report of intimacy increases .396 standard deviations. The partner effect was also significant [$b = .314$, $t(179) = 5.34$, $p < .001$]. It estimates the degree to which a partner's perception of the actor's emotion dysregulation affects the actor's experience of intimacy, while controlling for the actor effect. The gender main effect was also significant [$b = .127$, $t(105) = 2.60$, $p < .05$] indicating that when controlling for the other effects in the model, men had higher intimacy scores than women. Gender-moderated actor and partner effects were not significant.

Model 3. In the third model, gender, actor's self-report of emotion re-regulation, and their partner's self-report of emotion re-regulation were entered as independent variables with intimacy serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's self-reported emotion re-regulation difficulties affects his or her own experience of intimacy in the relationship (see Figure 3). This

value was $b = .387$, $t(175) = 6.12$, $p < .001$ (see Table 5), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the actor's self-perceived ability to emotionally re-regulate, their report of intimacy increases .387 standard deviations. The partner effect was also significant [$b = .189$, $t(162) = 2.90$, $p < .01$]. It estimates the degree to which a partner's self-reported emotion re-regulation difficulty impacts the actor's experience of intimacy, while controlling for the actor effect. The gender main effect and gender-moderated actor and partner effects were not significant.

Model 4. In the fourth model, gender, actor's report of their partner's emotion re-regulation, and the partner's report of the actor's emotion re-regulation were entered as independent variables with intimacy serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's perception of their partner's emotion re-regulation difficulties affects his or her own experience of intimacy in the relationship (see Figure 4). This value was $b = .332$, $t(192) = 5.61$, $p < .001$ (see Table 5), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the partner's perceived ability to emotionally re-regulate, the actor's report of intimacy increases .332 standard deviations. The partner effect was also significant [$b = .344$, $t(195) = 5.84$, $p < .001$]. It estimates the degree to which a partner's perception of the actor's capacity to emotionally re-regulate affects the actor's experience of intimacy, while controlling for other predictors in the model. The gender main effect was also significant [$b = .114$, $t(105) = 2.31$, $p < .05$] indicating that

when controlling for the other effects in the model, men had higher intimacy scores than women. Gender-moderated actor and partner effects were not significant.

Model 5. In the fifth model, gender, actor's dysregulation-×-re-regulation (self-report) product term, and their partner's dysregulation-×-re-regulation (self-report) product term were entered as independent variables with intimacy serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's self-reported emotion dysregulation and emotion re-regulation difficulties affect his or her own experience of intimacy in the relationship (see Figure 5). This value was $b = .387$, $t(182) = 6.12$, $p < .001$ (see Table 5), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the product term, a person's report of intimacy increases .314 standard deviations. The partner effect was also significant [$b = .194$, $t(160) = 2.91$, $p < .01$]. It estimates the degree to which a partner's self-reported emotion dysregulation and emotional re-regulation difficulties impact the actor's experience of intimacy, while controlling for the actor effect. The gender main effect and gender-moderated actor and partner effects were not significant.

Model 6. In the sixth model, gender, actor's dysregulation-×-re-regulation (partner-report) product term, and their partner's dysregulation-×-re-regulation (partner-report) product term were entered as independent variables with intimacy serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's perception of their partner's emotion dysregulation and emotion re-regulation difficulties affect his or her own experience of intimacy in the relationship (see Figure 6). This value was $b = .381$, $t(198) = 6.66$, $p < .001$ (see Table 5), indicating

that, holding other predictor variables constant, for each standard deviation unit increase in the partner's perceived ability to remain in control of their emotions and emotionally re-regulate if necessary, a person's report of intimacy increases .314 standard deviations. The partner effect was also significant [$b = .358$, $t(199) = 6.28$, $p < .001$]. It estimates the degree to which a partner's perception of the actor's capacity to remain in control of their emotions and to emotionally re-regulate if necessary impact the actor's experience of intimacy, while controlling for other predictors in the model. The gender main effect was also significant [$b = .120$, $t(105) = 2.40$, $p < .05$] indicating that when controlling for the other effects in the model, men had higher intimacy scores than women. Gender-moderated actor and partner effects were not significant.

Relationship Distress

Model 7. In the seventh model, gender, actor's self-report of emotion dysregulation, and their partner's self-report of emotion dysregulation were entered as independent variables with relationship distress serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's emotion dysregulation affects his or her own experience of distress in the relationship (see Figure 7). This value was $b = -.374$, $t(176) = -5.51$, $p < .001$ (see Table 6), indicating that, holding other predictor variables constant, for each standard deviation unit decrease in the self-perceived ability to retain emotional control, a person's report of relationship distress increases .374 standard deviations. The partner effect was also significant [$b = -.163$, $t(142) = -2.16$, $p < .05$]. It estimates the degree to which a partner's self-reported emotion dysregulation impacts the actor's experience of relationship

distress while controlling for the actor effect. The gender main effect and gender-moderated actor and partner effects were not significant.

Model 8. In the eighth model, gender, the actor's report of their partner's emotion dysregulation, and the partner's report of the actor's emotion dysregulation were entered as independent variables with relationship distress serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's perception of their partner's emotion dysregulation affects his or her own experience of distress in the relationship (see Figure 8). This value was $b = -.324$, $t(193) = -5.37$, $p < .001$ (see Table 6), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the perceived ability for one's partner to remain in control of their emotions, a person's report of relationship distress decreases .324 standard deviations. The partner effect was also significant [$b = -.301$, $t(179) = -4.87$, $p < .001$]. It estimates the degree to which a partner's perception of the actor's emotion dysregulation affects the actor's experience of relationship distress while controlling for the actor effect. The gender main effect was also significant [$b = -.112$, $t(105) = 2.60$, $p < .05$] indicating that when controlling for the other effects in the model, women had higher relationship distress scores than men. Gender-moderated actor and partner effects were not significant.

Model 9. In the ninth model, gender, actor's self-report of emotion re-regulation, and the partner's self-report of emotion re-regulation were entered as independent variables with relationship distress serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's self-reported emotion re-regulation

abilities affects his or her own experience of distress in the relationship (see Figure 9). This value was b = -.309, $t(178)$ = -4.74, $p < .001$ (see Table 6), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the actor's self-perceived ability to emotionally re-regulation, their report of relationship distress decreases .309 standard deviations. The partner effect was also significant [b = -.178, $t(159)$ = -2.61, $p < .05$]. It estimates the degree to which a partner's self-reported emotion re-regulation abilities impacts the actor's experience of relationship distress, while controlling for the actor effect. The gender main effect and gender-moderated actor and partner effects were not significant.

Model 10. In the tenth model, gender, actor's report of their partner's emotion re-regulation, and the partner's report of the actor's emotion re-regulation were entered as independent variables with relationship distress serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's perception of their partner's emotion re-regulation abilities affects his or her own experience of distress in the relationship (see Figure 10). This value was b = -.258, $t(183)$ = -4.08, $p < .001$ (see Table 6), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the partner's perceived ability to emotionally re-regulate, the actor's report of relationship distress decreases .258 standard deviations. The partner effect was also significant [b = -.246, $t(187)$ = -3.91, $p < .001$]. It estimates the degree to which a partner's perception of the actor's capacity to emotionally re-regulate affects the actor's experience of relationship distress, while controlling for other predictors in the model. The gender main effect was also significant [b = .111, $t(105)$ = -2.17, $p < .05$]

indicating that when controlling for the other effects in the model, women had higher relationship distress scores than men. Gender-moderated actor and partner effects were not significant.

Model 11. In the eleventh model, gender, actor's dysregulation-×-re-regulation (self-report) product term, and the partner's dysregulation-×-re-regulation (self-report) product term were entered as independent variables with relationship distress serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's self-reported emotion dysregulation and emotion re-regulation difficulties affect his or her own experience of distress in the relationship (see Figure 11). This value was $b = -.368$, $t(186) = -5.78$, $p < .001$ (see Table 6), indicating that, holding other predictor variables constant, for each standard deviation unit increase in emotion regulation and re-regulation abilities, a person's report of relationship distress decreases .368 standard deviations. The partner effect was also significant [$b = -.180$, $t(156) = -2.62$, $p < .05$]. It estimates the degree to which a partner's self-reported emotion dysregulation and emotional re-regulation abilities impact the actor's experience of relationship distress, while controlling for the actor effect. The gender main effect and gender-moderated actor and partner effects were not significant.

Model 12. In the twelfth model, gender, actor's dysregulation-×-re-regulation (partner-report) product term, and their partner's dysregulation-×-re-regulation (partner-report) product term were entered as independent variables with relationship distress serving as the dependent variable. In this model, the actor effect estimates the degree to which the actor's perception of their partner's emotion dysregulation and

emotion re-regulation difficulties affect his or her own experience of distress in the relationship (see Figure 12). This value was $b = -.291$, $t(189) = -4.72$, $p < .001$ (see Table 6), indicating that, holding other predictor variables constant, for each standard deviation unit increase in the partner's perceived ability to remain in control of their emotions and emotionally re-regulate if necessary, a person's report of relationship distress decreases .291 standard deviations. The partner effect was also significant [$b = -.285$, $t(191) = -4.62$, $p < .001$]. It estimates the degree to which a partner's perception of the actor's capacity remain in control of their emotions and to emotionally re-regulate impact the actor's experience of relationship distress, while controlling for other predictors in the model. The gender main effect was also significant [$b = -.110$, $t(105) = -2.14$, $p < .05$] indicating that when controlling for the other effects in the model, women had higher relationship distress scores than men. Gender-moderated actor and partner effects were not significant.

Summary of Results

In general, results of APIM analyses indicate strong links between emotion regulation variables and relationship functioning. We hypothesized that there would be significant actor and partner effects for models 1 through 12. APIM analyses uniformly supported these hypotheses with significant actor and partner effects on all models tested. Specifically, an individual's report of intimacy and distress in their relationship was predicted by the individual's self-report of emotion dysregulation, their partner's self-report of emotion dysregulation, the individual's report of their partner's emotion dysregulation, and their partner's report of the individual's emotion dysregulation. The

same pattern of results emerged when emotion re-regulation was used as the predictor variable (i.e., an individual's report of intimacy and distress in their relationship was predicted by the individual's self-report of emotion re-regulation, their partner's self-report of emotion re-regulation, the individual's report of their partner's emotion re-regulation, and their partner's report of the individual's emotion re-regulation). Product term (dysregulation-×-re-regulation) predictors yielded the same pattern of results. Regression coefficients for product term predictors were generally in the same range as for either predictor used in isolation suggesting that the product term predictor did not account for significantly more variance in the dependent variables than did either emotion dysregulation or emotion re-regulation when used individually. In all cases, higher levels of emotion re-regulation difficulties and emotion dysregulation were associated with less intimacy and more distress in the relationship.

It was anticipated that gender main effects and gender-moderated actor and partner effects would be nonsignificant. However, a small but statistically significant simple main effect for gender on both intimacy and relationship distress emerged in all analyses using partner-report predictor variables, but not in analyses using self-report predictor variables. This would indicate that gender was able to account for residual variance in the dependent variables when partner-report variables were included in the model, but not when self-report predictors were included in the model. Inspection of means for men and women on the dependent variables indicate that men reported slightly more intimacy and less distress in their relationships compared to women. Gender-moderated actor and partner effects (interaction terms) were statistically

nonsignificant in all analyses indicating that although the association between emotion regulation variables and relationship functioning may differ across gender, we failed to detect such differences in our analyses.

CONCLUSION

What is the association between emotion regulation and relationship functioning? We hypothesized that the tendency to become emotionally dysregulated (i.e. losing control of one's emotions and behavior) would have a negative impact on intimacy and increase distress in romantic relationships. Similarly, we hypothesized that emotion re-regulation difficulty (i.e. the inability to regain emotional control or equilibrium once it has been lost) would have a negative impact on intimacy and increase relationship distress. Results from this study not only provide strong support for these general hypotheses, but also highlight the distinct contributions of each individual's emotional functioning on their partner's experience of intimacy and relationship distress. This finding is consistent with the systemic and recursive nature of close relationships and indicates that within the realm of emotion in relationships there is significant interdependence between partners. The results are also consistent with research by Whisman, Uebelacker, and Weinstock (2004), which highlight the importance of collecting data from both partners within a dyad in order to detect effects due to interdependence.

Results suggest that there are multiple avenues through which emotion regulation impacts a given individual's relationship functioning; these include: (1) the individual's self-perceived capacity for emotion regulation, (2) their partner's self-perceived capacity for emotion regulation, (3) the individual's perception of their partner's capacity for emotion regulation, and (4) the partner's perception of the individual's emotion regulation abilities. These pathways likely interact and influence each other so that

beliefs and perceptions regarding one's own ability to regulate emotion shape emotional exchanges between partners in a way that modifies perceptions of one's partner, and vice versa. At the same time, the way that each of these pathways exerts its effects on individuals in relationships would also seem somewhat unique and may include distinctive mechanisms. Illuminating these mechanisms is a task for future research.

Whereas *actor effects* (the impact of an individual's characteristics on their own experience of their relationship) have long been a focus of attention for relationship researchers, *partner effects* (the impact of an individual's characteristics on their partner's experience of the relationship) have received comparatively less attention. Ironically, it is partner effects, not actor effects that are more closely tied to relationship phenomena. Actor effects are valuable because they convey information about intrapersonal processes operating in relationship contexts, but partner effects uniquely speak to interpersonal influence in relationships. Within the current study, actor effects indicate that an individual's emotion regulation abilities affect how they feel in their relationship, but partner effects suggest that those same abilities (or lack thereof) also strongly influence one's partner.

The current study also examined partner-reports of emotion dysregulation. Such reports are composed of at least two components. First, they reflect "true" or actual dysregulation in the partner (i.e., sometimes spouses may be more accurate reporters of a characteristic or behavior than the subject). Second, partner-reports also reflect perceptions, beliefs, and expectations that may be inaccurate or distorted and based on the partner's own negative relationship history. Results from the current study suggest

that such beliefs impact both partners in important ways. For instance, what a partner *believes* about his or her spouse's ability to regulate emotion may have a greater impact on that spouse's marital satisfaction than what he or she believes about him- or herself. This reflects the complex interplay among emotion, cognition, and behavior in relationships and speaks to the power of expectations to shape social interactions in a self-fulfilling manner (Reis, Collins, & Berscheid, 2000).

Another important implication of this study's findings involves the wide-ranging effects of emotion dysregulation on relationships. Although relationship distress would seem to be more proximally related to emotion dysregulation through immediate emotionally reactive conflict (something to which many clinicians can attest), the more insidious effect of emotion dysregulation on relationships may be in the realm of intimacy. In the short term, emotion dysregulation is certain to result in negative interactions between partners, but an equally damaging effect may be how it deprives the relationship of positive experiences required for intimacy over the long term. Gottman's research has established the essential role of positive emotional exchange in preserving and sustaining healthy relationships (Driver et al., 2003; Gottman 1999; Gottman et al., 2002; Gottman & Levenson, 2000). It may be that deficits in containing emotional arousal are associated with another type of emotion dysregulation, namely deficits in emotional experiencing and emotion utilization. Although not a focus of this study, emotion utilization in relationships is critical for effective communication, attachment formation, and intimacy.

The role of gender is often given center stage when it comes to discussions involving emotion. There was a significant main effect of gender on both intimacy and distress in analyses that used partner-report predictor variables. Inspection of means for men and women on the study variables indicate that men reported experiencing slightly more intimacy and less distress compared to women. In addition, men rated themselves as less prone to difficulties with emotion re-regulation and emotion dysregulation compared to women. Interestingly, partner-report data showed the same pattern of results with women rating men as more adept in these areas, compared to the way that men rated women. However, all mean differences and gender effects were modest in size with Cohen's *d* coefficients ranging from .27 to .33. Interaction terms (gender-moderated actor and partner effects) remained nonsignificant indicating that, although such differences may exist, we were unable to detect them in our analyses, possibly due to design limitations, inadequate sample size, or measurement error.

Clinical Implications

Assessment. The most obvious clinical implication from the results of the current study is that emotion dysregulation and capacity for re-regulation are important variables to consider whenever assessing and treating couples. In addition, it is useful to recognize the complex interplay among intrapersonal and interpersonal factors in maintaining states of dysregulation. At times, it may be tempting to locate emotion dysregulation squarely within individuals; however, this would appear to be a mistake given the multiple ways that emotions, cognitions, and behavior interact in creating

relationship events. In this sense, emotion dysregulation can also be considered a property of unique relationship systems.

In conducting clinical couple assessment, it would appear that there are three primary sources of emotion dysregulation that may contribute to distress in relationships; these include: (a) intrapersonal dysregulation, (b) dysregulation that is inherent to the relationship itself, and (c) dysregulation that is attributable to contextual factors in the environment or extended system. To use a statistical metaphor, these three variables can be thought of as "main effects" that can account for observed variance in couple dysregulation. Additionally, there may be "interaction effects" such as when one partner's tendency toward intrapersonal dysregulation interacts with an environmental stressor (e.g. job loss) to produce emotion dysregulation and distress in the relationship.

Obviously, one never knows exactly how much of a couple's problems are due to their individual dynamics, to features of the relationship, or to contextual variables. However, it is possible to partially tease apart these sources of variance by analyzing patterns of emotion dysregulation *over time* and *across relationships*. For instance, when an individual exhibits signs of dysregulation across multiple relationships over time then one can more confidently conclude that they tend to be *internally* dysregulated and that their internal dysregulation contributes to distress in the relationship. Such individuals will be more likely to report, or to be described by their partner as having, a history of emotional reactivity across multiple relationships and in multiple contexts. They may report tumultuous relationships with their parents, friends, and co-workers. They may also give indications of having a "difficult" temperament (e.g., easily

annoyed, low frustration tolerance, slowness to sooth from an early age) or an unstable attachment history (e.g., loss of primary caregiver, neglectful or abusive parenting).

On the other hand, sometimes partners display minimal internal dysregulation, but significant emotional dysregulation specifically in relation to each other. These individuals often report having stable relationships in their family of origin and stable peer relationships, but report feeling emotionally reactive and overwhelmed in their marriage. Well-regulated individuals who feel emotionally dysregulated in their relationship may also report feeling more troubled, ashamed, or embarrassed about their own emotionally reactive behavior because it is discrepant from their self-perception. When well-regulated partners become emotionally dysregulated in their relationship, it is likely that the development of emotional dysregulating patterns inherent to their relationship have played a primary role in the genesis of their distress. Such couples have often become trapped into ways of behaving with each other that have led to ever-increasing dysregulation over the evolution of their relationship.

Finally, when a couple evidences emotion dysregulation that is atypical or not characteristic of their emotional functioning over time or in other relationships, then it is likely that contextual variables outside their immediate relationship system are having a dysregulating effect on their interactions. Examples of contextual variables that can lead to periods of emotion dysregulation in relationships include serious illness, death of a loved one, birth of a child, financial downturns, or other societal or cultural influences. When contextual stressors are contributing to relationship distress, then the onset of relationship dysregulation will be more abrupt and will correspond to the introduction of

the stressor. Prognosis for treatment is comparatively good for such couples because dysfunctional patterns of interacting will not be as deeply engrained and each partner is more likely to have internal resources available to help the relationship.

This discussion highlights the conclusion that although the phenotypic expression of emotion dysregulation in relationships can appear the same, the root causes may differ. Each potential source of dysregulation has important implications for how one intervenes. It is critically important to assess how these three main sources of emotion dysregulation interact to produce the couple's current level of emotional functioning.

Although not specifically addressed in the current study, research by Richards et al. (2003) suggests that how individuals attempt to regulate their emotions can have an important impact on their relationship. Not all regulation strategies are equal. For instance, a partner who copes primarily through suppression of emotion as opposed to cognitive reappraisal may have difficulty listening to his or her partner and may actually experience an intensification of internal emotional experience. A careful review of each partner's emotion regulation strategies and the impact of those strategies on the relationship is an important part of couple assessment. There are a myriad of potential ways in which people can regulate their emotions. Strategies can be cognitive or behavioral, conscious or unconscious, problem-focused or problem-avoidant, and each of these strategies may be more or less effective for the individual. Some emotion regulation strategies may provide immediate relief from aversive emotional states, but may be ineffective or even dysregulating in the long run. For example, a husband who

relies on alcohol and avoidance to cope with negative affect may find that his life becomes increasingly emotional and complicated.

Not only may regulation strategies not work for the individual, they may also not work for the relationship. It is essential to assess how each partner's repertoire of coping strategies feeds back into the relationship to either escalate or contain emotional exchanges. A couple's emotion regulation strategies may be more or less compatible. Incompatible coping strategies can be a major cause of relationship dysregulation. When one partner wants to "talk things out" and the other partner needs to "take space" or when one partner likes to "think things through" while the other person needs to "take some action," then each partner is more likely to respond emotionally to the other's attempts to cope. The clinician must assess the effectiveness of emotion regulation strategies both for the individual and for the relationship. Additionally, each individual's awareness and acceptance of their partner's emotion regulation strategies can help to avert escalation in the relationship while each partner is trying to engage in self-soothing.

Intervention. In terms of intervention, helping each partner to develop a repertoire of effective emotion regulation skills would seem to be a logical step in helping to interrupt recursive feedback loops in the relationship. However, findings from this study indicate that it may be equally important to attend to the way that each partner thinks about the other's emotional processes because this may also play an important role in shaping the emotional exchanges between them.

Although there are numerous ways that couple therapists can facilitate emotion regulation, there seem to be two primary dimensions that are useful for distinguishing among different types of emotion regulation interventions. Therapists can facilitate emotion regulation by intervening at the individual or dyadic level, and by either increasing or decreasing emotional experiencing. Crossing these dimensions yields a two by two matrix with four cells (e.g., individual experiencing, individual containment, dyadic experiencing, and dyadic containment; see Table 7). Various types of interventions for emotionally dysregulated couples can be mapped onto this matrix depending upon what level they target (individual vs. dyad) and how they are meant to impact emotional processes (increase or decrease emotional experiencing).

To describe all possible interventions that are germane to emotion regulation is well beyond the scope of this paper. Rather, we aim to help clinicians move beyond theoretical provincialism by using an emotion regulation framework to integrate existing therapies, thereby fostering innovative ways of thinking about and working with emotionally dysregulated couples. Therefore, each quadrant represented in Table 7 will be briefly described as well as interventions that could apply to those categories.

The *individual experiencing* portion of the table deals with increasing each partner's ability to fully experience and appropriately express their emotions. Enhancing individuals' ability to attend to bodily experience, be present with their emotions, and search their feelings for meaning and understanding can have many beneficial effects including improved decision making, better understanding of one's own needs, and increased energy and motivation to engage in change processes. Psychotherapies

Table 7
Framework for Classifying Interventions for Emotionally Dysregulated Couples

Direction of Intervention	Level of Intervention: Individual	Level of Intervention: Dyad
Facilitating Emotional Experiencing	**Facilitating Individual Experiencing of Emotion** • Emotion focused therapy • Insight-oriented therapy • Experiential therapy • Humanistic therapy • Reflective listening techniques • Gestalt techniques • Searching for meaning in emotion and utilizing adaptive response tendencies	**Facilitating Dyadic Experiencing of Emotion** • Emotion focused couple therapy • Insight-oriented couple therapy • Integrative behavioral couple therapy • Emotion expressiveness training • Active listening and communication skills • Promoting acceptance between partners
Containing Emotional Arousal	**Promoting Individual Containment of Emotion** • Cognitive-behavioral therapy • Anger management training • Distress tolerance skills • Altering distorted emotion-generating cognitions • Relaxation training • Developing effective emotion regulation strategies	**Promoting Dyadic Containment of Emotion** • Cognitive-behavioral couple therapy • Disrupting patterns of emotional escalation • Time-out procedures • Non-pursuit contracting • Relationship repair procedures • Identifying incongruence in coping strategies

relevant to this domain include object-relations (Scharff & Scharff, 1991), experiential (Whitaker & Bumberry, 1988), Gestalt, and emotion focused (Greenberg & Paivio, 1997) approaches. Specific therapy techniques that can be useful for facilitating individual experiencing of emotion include reflective listening, imagery, narrative (story-telling), and gestalt (body awareness) techniques.

The *dyadic experiencing* category is concerned with increasing the experiencing and sharing of emotions *between* partners. Enhancing a couple's ability to express and read each other's emotions can have widespread positive effects including emotional bonding, feelings of closeness, increased trust, and decreased distortions and misattributions. Such emotional sharing provides each partner with valuable information about the other's needs, motives, and desires, which then informs their behavior in the relationship. Psychotherapies relevant to increasing the dyadic experiencing of emotion include emotion focused couple therapy (EFT, Johnson & Denton, 2002), object relations couple therapy (Scharff & Bagnini, 2002), affective reconstruction (Snyder & Schneider, 2002) and integrative behavioral couple therapy (Dimidjian, Martell, & Christiansen, 2002). Specific techniques that can be used to facilitate the dyadic experiencing of emotion include emotion expressiveness training (Baucom, Sayers, & Sher, 1990), encouraging expression of primary emotions that underlie destructive cycles (EFT, Johnson & Denton, 2002), and fostering "acceptance" and "tolerance" in the relationship to depolarize differences in temperament and coping strategies.

The *individual containment* quadrant of the framework is concerned with helping each partner modulate emotional arousal. As indicated by the finding of this study, the

ability to modulate the intensity and duration of one's own emotional experiencing can have important effects on one's relationship. Individual abilities in emotional containment can act as a brake on destructive interactions between partners. The psychotherapy that has devoted the most attention to regulating individual emotional arousal is cognitive-behavioral therapy. Linehan's (1993) cognitive-behavioral treatment for borderline personality disorder specifically targets deficits in containing emotion arousal. Some of the specific cognitive-behavioral techniques that can be useful in treating deficits in emotional containment are: developing distress tolerance skills, identifying antecedents and consequences of emotional arousal, restructuring distorted emotion-generating cognitions, and anger management skills. Developing a repertoire of effective emotion-regulation strategies is an important part of emotional containment.

The *dyadic containment* quadrant of the framework focuses on helping couples contain or disrupt destructive emotional cycles or patterns in their relationship. When partners are able to recognize vicious cycles of emotional escalation and then disrupt those cycles by "doing something different," then they spare the relationship of destructive exchanges that could damage trust and emotional connection. Cognitive-behavioral couple therapy (Baucom & Epstein, 1990; Baucom, Epstein & LaTaillade, 2002) and has traditionally emphasized the containment of destructive emotional processes in marriage. Some of the specific techniques that are useful for containing dyadic emotional processes are time-out procedures, non-pursuit contracts, modifying emotion-generating assumptions, challenging unrealistic expectations or standards about the relationship, and communication skills training.

The cells in Table 7 are not intended to be mutually exclusive; rather, there is considerable overlap in the categories represented. It can be argued that interventions in one cell of the table often have secondary effects on target behaviors represented by other cells. For instance, interventions that target individual aspects of emotion regulation frequently have a positive influence on emotion regulation in the relationship and vice versa. Similarly, interventions that facilitate the positive expression of emotion result in new understandings of self and partner which in turn lead to improved containment of negative emotions. Moreover, interventions that target containment of emotion may foster increased emotional expressiveness by making the relationship a safer place to express vulnerability.

Limitations and Future Directions

This study attempted to delineate the connection between emotion dysregulation and relationship functioning with broad strokes. Many questions remain to be answered using more fine-grained analyses. Questions for future study might include the following: "What factors account for the connection between emotion regulation and relationship functioning? How do perceptual and cognitive factors operate in shaping emotional exchanges between partners? What kind of behavioral exchanges lead to emotion dysregulation in individual partners? What strategies do individuals typically use to regulate their emotions during conflict and are some of those strategies better for the relationship than others?"

Although current analyses labeled emotion regulation variables as "predictors" and relationship variables as "outcomes," the analyses were still correlational in nature

and do not convey information regarding cause and effect. In truth, the association between relationship functioning and emotion dysregulation is likely to be bidirectional. It may be just as likely that relationship distress causes couples to become emotionally dysregulated as the other direction. Future studies would need to employ different research design and methodology to untangle issues of causality. It may be that couples differ in the degree to which emotion dysregulation is a product of systemic processes verses traits inherent to each partner. Longitudinal research designs or retrospective reports regarding emotion dysregulation prior to entering the relationship may be useful in this regard.

REFERENCES

Baucom, D. H., & Epstein, N. (1990). *Cognitive-behavioral marital therapy*. Philadelphia, PA: Brunner/Mazel, Inc.

Baucom, D. H., Epstein, N. & LaTaillade, J. J. (2002). Cognitive-behavioral couple therapy. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (pp. 26-58). New York: Guilford Press.

Baucom, D. H., Sayers, S. L., & Sher, T. G. (1990). Supplementing behavioral marital therapy with cognitive restructuring and emotional expressiveness training: An outcome investigation. *Journal of Consulting and Clinical Psychology, 58,* 636-645.

Bell, K. L., & Calkins, S. D. (2000). Relationships as inputs and outputs of emotion regulation. *Psychological Inquiry 11*, 160-163.

Bowlby, J. (1980). *Attachment and loss: Vol.3. Sadness and depression.* Harmondsworth, England: Penguin.

Bradley, S. J. (2000). *Affect regulation and the development of psychopathology.* New York: Guilford Press.

Campbell, L., & Kashy, D.A. (2002). Estimating actor, partner, and interaction effects for dyadic data using PROC MIXED and HLM: A user-friendly guide. *Personal Relationships, 9,* 327-342.

Cole, P. M., Martin, S. E., & Dennis, T. A. (2004). Emotion regulation as a scientific construct: Methodological challenges and directions for child development research. *Child Development 75*, 317-333.

Denton, W. H., Burleson, B. R., Clark, T. E., Rodriguez, C. P., & Hobbs, B. V. (2000). A randomized trial of emotion-focused therapy for couples in a training clinic. *Journal of Marital & Family Therapy 26*(1), 65-78.

Dimidjian, S., Martell, C. R., & Christensen, A. (2002). *Integrative behavioral couple therapy.* In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (pp. 251-277). New York: Guilford Press.

Driver, J. L., Tabares, A., Shapiro, A., Nahm, E., & Gottman, J. M. (2003). *Interactional patterns in marital success or failure: Gottman laboratory studies.* In F. Walsh (Ed.), Normal family processes: Growing diversity and complexity (3rd ed., pp. 493-513). New York: Guilford Press.

Fosha, D. (2001). The dyadic regulation of affect. *Journal of Clinical Psychology/In Session, 57,* 227–242.

Fox, N. A. & Calkins, S. D. (2004). The development of self-control of emotion: Intrinsic and extrinsic influences. *Motivation and Emotion 27*(1), 7-26.

Fruzzetti, A. E., & Fruzzetti, A. R. (2003). Partners with borderline personality disorder: Dialectical behavior therapy with couples. In D. K. Snyder & M. A. Whisman (Eds.), *Treating difficult couples: Helping clients with coexisting mental and relationship disorder*, (pp. 235-260) New York: Guilford Press.

Gaensbauer, T. J. (1982). Regulation of emotional expression in infants from two contrasting caretaking environments. *Journal of the American Academy of Child Psychiatry 21*(2), 163-170.

Goleman, D. (1995). *Emotional intelligence.* New York: Bantam Books.

Gottman, J. M. (1999). *The marriage clinic :A scientifically based marital therapy*. New York: W. W. Norton.

Gottman, J. M., Driver, J., & Tabares, A. (2002). Building the sound marital house: An empirically derived couple therapy. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (pp. 373-399). New York: Guilford Press.

Gottman, J. M., & Levenson, R. W. (2000). The timing of divorce: Predicting when a couple will divorce over a 14-year period. *Journal of Marriage and the Family,* 62, 737-745.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology Behavior Assessment 26*, 41-54.

Greenberg, L. S. & Paivio, S. C. (1997). *Working with emotions in psychotherapy.* New York: Guilford Press.

Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2,* 271-299.

Gross, J. J., & Munoz, R. F. (1995). Emotion regulation and mental health. *Clinical Psychology: Science and Practice, 2,* 151-164.

Hazen, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52,* 511-524.

Johnson, S. M., & Denton, W. (2002). Emotionally focused couple therapy: Creating secure connections. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (pp. 221-250). New York: Guilford Press.

Kashy, D.A., & Kenny, D.A. (2000). The analysis of data from dyads and groups. In H.T. Reis & C.M. Judd (Eds.), *Handbook of research methods in social psychology.* (pp. 451-477). New York: Cambridge University Press.

Keenan, K. (2000). Emotion dysregulation as a risk factor for child psychopathology. *Clinical Psychology: Science and Practice, 7*, 418-434.

Kenny, D.A. (1995). The effect of nonindependence on significance testing in dyadic research. *Personal Relationships, 2,* 67-75.

Kenny, D.A., & Cook, D.A. (1999). Partner effects in relationship research: Conceptual issues, analytic difficulties, and illustrations. *Personal Relationships, 6,* 433-448.

Kiecolt-Glaser, J. K., Malarkey, W. B., Cacioppo, J. T., & Glaser, R. (1994). Stressful personal relationships: Immune and endocrine function. In R. Glaser & J. K. Kiecolt-Glaser (Eds.), *Handbook of human stress and immunity* (pp. 321-339). San Diego, CA: Academic Press, Inc.

LeDoux, J. E. (1993). Emotional networks in the brain. In M. Lewis, & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 109-118). New York: Guilford Press.

Lewis, D. L. & Stieben, J. (2004). Emotion regulation in the brain: Conceptual issues and directions for developmental research. *Child Development, 75*, 371-376.

Levenson, R. W. (1994). Human emotion: A functional view. In P. Ekman & R. J. Davidson (Eds.), *Fundamental questions about the nature of emotion* (pp. 123-126). New York: Oxford University Press.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality disorder*. New York: Guilford Press.

Linehan, M. M., Cochran, B. N., & Kehrer, C. A. (2001). Dialectical behavior therapy for borderline personality disorder. In D. H. Barlow (Ed.), *Clinical handbook of psychological disorders: A step-by-step treatment manual* (3rd ed., pp. 470-522). New York: Guilford Press.

Lock, H. J., & Wallace, K. M. (1959). Short marital adjustment prediction tests: Their reliability and validity. *Journal of Marriage and the Family*, *21*, 251-255.

Lopes, P. N., Brackett, M. A., Nezlek, J., Schultz, A., Sellin, I., & Salovey, P. (2004). Emotional intelligence and social interaction. *Personality and Social Psychology Bulletin, 30,* 1018-1034.

Marcus, R.F., Swett, B. (2003). Violence in close relationships: The role of emotion. *Aggression and Violent Behavior 8,* 313-327.

Mayer, J.D., & Salovey, P. (1997) What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York: Basic Books.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion., 27* , 77-102.

Orth-Gomer, K., Wamala, S. P., Horsten, M., Schenck-Gustafsson, K., Schneiderman, N. Mittleman, M. A. (2000). Marital stress worsens prognosis in women with coronary heart disease. *JAMA 284*(23), 3008-3014.

Reis, H. T., Collins, W. A., & Berscheid, E. (2000). The relationship context of human behavior and development. *Psychological Bulletin 126*, 844-872.

Richards, J. M., Butler, E. A., Gross J. J. (2003). Emotion regulation in romantic relationships: The cognitive consequences of concealing feelings. *Journal of Social & Personal Relationships 20*, 599-620.

Robles, T. F., & Kiecolt-Glaser, J. K. (2003). The physiology of marriage: pathways to health. *Physiology & Behavior 79,* 409-416.

Salovey, P., & Sluyter, D. J. (Eds.). (1997). *Emotional development and emotional intelligence: Educational implications.* New York: Academic Press.

Schaefer, M. T. Olson, D. H. (1981). Assessing intimacy: The PAIR inventory. *Journal of Marital and Family Therapy 7*, 47-60.

Scharff, D. E., & Scharff, J. S. (1991). *Object relations couple therapy.* Northvale, NJ: Jason Aronson, Inc.

Scharff, J. S. & Bagnini, C. (2002). Object relations couple therapy. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (pp. 59-85). New York: Guilford Press.

Scherer, K. (1984). On the nature and function of emotion: A component process approach. In K. R. Scherer & P. E. Ekman (Eds.), *Approaches to emotion* (pp. 293-317). Hillsdale, NJ: Erlbaum.

Snyder, D. K. (1997). *Manual for the Marital Satisfaction Inventory – Revised*. Los Angeles, CA: Western Psychological Services.

Snyder, D. K. (1979). Multidimensional assessment of marital satisfaction. *Journal of Marriage and the Family, 41,* 813–823.

Snyder, D. K., & Schneider, W. J. (2002). Affective reconstruction: A pluralistic, developmental approach. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (pp. 151-179). New York: Guilford Press.

Snyder, D. K., & Whisman, M. A. (Eds.). (2003). *Treating difficult couples: Helping clients with coexisting mental and relationship disorders*. New York: Guilford Press.

Snyder, D. K., & Wills, R. M. (1989). Behavioral versus insight-oriented marital therapy: Effects on individual and interspousal functioning. *Journal of Consulting and Clinical Psychology, 57,* 39-46.

Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38,* 15-28.

Talmadge, L. D. & Dabbs, J. M. (1990). Intimacy, conversational patterns, and concomitant cognitive/emotional processes in couples. *Journal of Social & Clinical Psychology 9*(4), 473-488

Thoits, P. A. (1985). Self-labeling processes in mental illness: The role of emotional deviance. *American Journal of Sociology*, *91*(2), 221-249.

Thompson, R. A. (1994). Emotion regulation: a theme in search of definition. *Monographs of the Society for Research in Child Development, 59,* 24-52.

Tooby, J., & Cosmides, L. (1990). The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology, 11,* 375-424.

Whisman, M. A. (2001). The association between depression and marital dissatisfaction. In S. R. H. Beach (Ed.), *Marital and family processes in depression: A scientific foundation for clinical practice* (pp. 3-24). Washington, DC: American Psychological Association.

Whisman, M. A., Sheldon, C. T., & Goering, P. (2000). Psychiatric disorders and dissatisfaction with social relationships: Does type of relationship matter? *Journal of Abnormal Psychology*, *109*, 803–808.

Whisman, M. A., Uebelacker, L. A., & Weinstock, L. M. (2004). Psychopathology and marital satisfaction: The importance of evaluating both partners. *Journal of Consulting and Clinical Psychology, 72*, 830-838

Whitaker, C. A., & Bumberry, W. M. (1988). *Dancing with the family: A symbolic-experiential approach*. Philadelphia, PA: Brunner/Mazel, Inc.

Wolfe, D.A., Weberle, C. C., & Scott, K. (1997). *Alternatives to violence: Empowering youth to develop healthy relationships.* Thousand Oaks, CA: Sage.

VITA

BRIAN VAUGHN ABBOTT

Memphis VA Medical Center
1030 Jefferson Avenue
Memphis, TN 38104
E-mail: brian.abbott2@med.va.gov

Home Address:
2085 Pryne
Southaven, MS 38671
Phone: (662) 536-1143

Education

Texas A&M University, College Station, TX 77843
- Doctor of Philosophy in Psychology (2005)
- Master of Science in Psychology (2001)

University of Connecticut, Storrs, CT 06269
- Master of Arts in Human Development and Family Relations (1997)

Brigham Young University, Provo, UT 84602
- Bachelor of Science in Family Science (1995, Cum Laude)

Research Activity

Abbott, B. V., (2002, November). *Incorporating emotion regulation into couple therapy.* Symposium presented at the meeting of the Association for the Advancement of Behavior Therapy, Reno, NV.

Snyder, D. K., & **Abbott, B. V.** (2002). Couple distress. In M. M. Antony & D. H. Barlow (Eds.), *Handbook of assessment and treatment planning for psychological disorders* (pp. 341-374). New York, NY: Guilford Press.

Snyder, D. K., **Abbott, B. V.**, & Castellani, A. (2002). Assessing couples. In J. N. Butcher (Ed.), *Clinical personality assessment: Practical approaches* (2nd ed., pp. 225-242). New York, NY: Oxford University Press.

Snyder, D. K., Negy, C., Cepeda-Benito, A., **Abbott, B. V.**, Gleaves, D. H., Hahlweg, K., & Laurenceau, J. P. (2004). Cross- cultural applications of the Marital Satisfaction Inventory-Revised (MSI-R). In M. E. Maruish (Ed.), *Use of psychological testing for treatment planning and outcomes assessment* (3rd ed., pp. 603-623). Mahwah, NJ: Erlbaum.