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By Max Nisenbaum

ANGER EXPRESSION IN COUPLES: HOW DOES EACH PARTNER'S  
PERSONALITY INFLUENCE THE OTHER'S EXPRESSION OF ANGER?

A Dissertation Presented to the  
Faculty of the College of Education  
University of Houston

In Partial Fulfillment  
of the Requirements for the Degree

Doctor of Philosophy

By

Max Nisenbaum

August 2013

## DEDICATION

To my father, Gregory Nisenbaum, whose lifelong example of unwavering integrity and discipline guided me throughout this project.

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### Abstract

How members of romantic couples behave when compelled to express their anger and how they respond to the anger of their partners determines whether problems are resolved or whether the conflicts escalate and lead to the deterioration of relational bonds. Attachment researchers have observed that adult attachment characteristics are related to patterns of anger expression, with more secure individuals generally expressing anger less frequently and in more adaptive ways than more insecure individuals. However, the research that links attachment characteristics to anger coping styles is limited in that it does not examine how one relationship partner might influence the other's expression of anger. The purpose of the current study was to extend previous research by collecting data from both members of a relationship to examine how one partner's personality characteristics influence the other's anger-related behavior. A key assumption examined was that the quality of one partner's responses to another's anger would predict the other's anger-related behavior. In order to deal with the problem of nonindependent data, hypotheses were tested using the Actor-Partner Interdependence Model (APIM), a data analytic strategy that takes into account the nonindependence of dyadic data. Results suggest that both partners' personality attributes may play a role in one another's anger-related behavior.

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## **Introduction**

Anger has been implicated in the etiology of depression, anxiety, low self-esteem, coronary heart disease, and social problems like violence, child abuse, and intimate partner abuse (Deffenbacher et al., 1996; Kopper & Epperson, 1996; Robins & Novaco, 2000). The typical target of people's anger is a friend or a loved one (Averill, 1983) and people describe anger as more likely than any other emotion to have a negative influence on their relationships (DiGiuseppe & Tafrate, 2007). Anger arises in close relationships in response to perceived hurt, betrayal, rejection, and boundary violations (Buss, 1989). Though anger can often have negative consequences, when properly controlled and channeled, it can be expressed constructively to obtain personal and interpersonal goals (Tangney et al., 1996). How people behave when compelled to express their anger and how they respond to the anger of others determines whether problems are resolved or whether the conflicts escalate and lead to the deterioration of relational bonds. For these reasons, it is important for clinicians to understand what factors determine whether anger is dealt with in constructive or destructive ways.

Attachment theory provides a useful framework from which to conceptualize anger in romantic relationships, and a substantial body of literature has been produced to support the relationship between people's styles of anger-coping and their attachment schemas. However the research that links attachment to anger is limited because it overlooks the systemic nature of emotional experience and does not examine how the personality characteristics of both partners in a relationship contribute to anger coping. The purpose of the current study was to test several attachment theory-based hypotheses



about anger coping and to extend previous research with an examination of how one partner in a relationship influences the other's tendency to express anger.

The personality characteristics assessed as potentially predictive of another's style of anger-related behavior were a person's own attachment orientation and one's style of responding to anger that is directed at him or her. There is little research that has examined how people with different attachment characteristics respond to anger directed at them. However, two bodies of literature are useful for making hypotheses about how people might respond to anger: the literatures on interpersonal conflict and on accommodation. Attachment theory and the relationship of attachment orientation to anger coping and responding to others' anger are reviewed below.

### **Attachment Theory**

Attachment theory links experiences with caregivers in childhood to social-emotional functioning throughout the lifespan (Shaver & Mikulincer, 2007). The theory posits that people develop *internal-working models*, or cognitive schemas that represent the self and others, based on the outcome of security and proximity-seeking behaviors during infancy. When attachment figures are available in times of distress, the infant feels a sense of security—that the world is safe and that caring others can be trusted to be available when needed. These infants learn that seeking proximity with an attachment figure during experiences of threat or insecurity is an effective emotion regulation strategy. When attachment figures are unavailable, unresponsive, inconsistent, or ineffectual at alleviating distress, the infant may develop a representation of the self as unlovable and a view of others as unloving and undependable.

Seeking proximity with attachment figures during experiences of stress, uncertainty, or insecurity is considered a primary attachment strategy (Shaver & Mikulincer, 2007). When the primary attachment strategy is not effective at reducing distress, the infant adopts secondary attachment strategies. A secondary attachment strategy can take the form of either hyperactivating or deactivating the attachment system. When caregivers are inconsistent in their availability as a secure base, infants may develop hyperactivating strategies because persistent and noisy demands for attention are frequently effective (at least initially) in acquiring support. On the other hand, when caregivers express disapproval of primary attachment strategies by punishing expressions of need and withdrawing in response to vulnerability, infants may develop a deactivating strategy. Deactivating strategies protect the infant from the distress of caregiver unavailability by suppressing attachment needs.

The outcomes of repeated interactions with attachment figures are stored in memory as relatively enduring *working models* of the self and others that are carried forward into later childhood and adulthood to manifest as a person's *attachment orientation* (Shaver & Mikulincer, 2007). An avoidant attachment orientation is characterized by a discomfort with intimacy, preference for independence, and the use of deactivating strategies to deal with distress. An anxious attachment orientation is characterized by a persistent need for intimacy, doubts about partner availability and one's own worthiness, and the use of hyperactivating strategies for dealing with distress. A secure attachment orientation is characterized by a persistent sense of attachment security, trust in others, comfort with intimacy, and constructive strategies for coping with distress. When assessed by self-report measures such as the Experiences in Close

Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998), securely attached individuals score low on two dimensions of attachment: avoidance and anxiety. Individuals who score high on anxiety and low on avoidance are “preoccupied” with maintaining proximity, and those with the opposite pattern are “dismissive” of needs for attachment. Individuals who score high on both anxiety and avoidance dimensions of attachment are described as “fearful.”

### **Coping with One’s Own Anger**

An often-ignored aspect of anger is its functional value. Anger can serve to energize behavior for protecting one’s self-esteem, expressing negative affect, addressing injustice, and overcoming obstacles to wellbeing (Novaco, 2007). Researchers have identified a number of adaptive and maladaptive styles of anger expression that permit or prevent utilizing anger in a functional way. Maladaptive anger-related behaviors and attitudes that have been identified include malevolent intentions, rumination, pessimism about the consequences of one’s anger episodes, physical or verbal aggression towards another, self-aggression, attempts to escape angering situations, suppressing angry feelings, and denying the importance of the angering event (Campbell & Muncer, 2008; Deffenbacher et al., 1996; Kubiak, Wiedig-Allison, Zgoriecki, & Weber, 2011; Linden et al. 2003; Tangney, Wagner, Barlow, Marschall, & Gramzow, 1996; Van Coillie & Van Mechelen, 2006). Adaptive anger-related behaviors and attitudes that have been identified include constructive intentions for expressing anger, cognitive reappraisal of one’s role in angering events, positive expectations about long-term consequences of anger-related episodes, non-injurious aggression toward inanimate objects, crying, seeking support, leaving the situation to calm down, assertively addressing the target of

anger, self-distraction, humor, and reframing the negative event (Campbell & Muncer, 2008; Deffenbacher et al., 1996; Kubiak, Wiedig-Allison, Zgoriecki, & Weber, 2011; Linden et al. 2003; Tangney, Wagner, Barlow, Marschall, & Gramzow, 1996; Van Coillie & Van Mechelen, 2006).

### **Attachment and Anger**

Bowlby (1973) conceptualized infants' anger as a functional "protest" reaction that arises in response to disruption or threat of disruption of attachment bonds. The function of anger is either to overcome obstacles at reunion with the attachment figure or, upon reunion, to reproach and thereby discourage the attachment figure from distancing themselves again. Thus, from Bowlby's perspective, the expression of anger plays an important role in regulating relational distance between children and their caregivers. Bowlby observed that this regulatory mechanism appears to be maladjusted in children and adolescents who have experienced repeated separations and frequent threats of abandonment. Children with such backgrounds were more likely to demonstrate violent, intense, and often displaced expressions of anger. Bowlby proposed that insecure working models of attachment play a role in this type of dysfunctional anger, which weakens rather than strengthens relational bonds.

Attachment researchers have applied this framework to the conceptualization of anger experience and expression among adults and have observed that adult attachment characteristics are related to patterns of anger expression, with more secure individuals generally expressing anger less frequently (Calamari & Pini, 2003; Dutton, Saunders, Starzomski, & Bartholomew, 1994) and in more adaptive ways than more insecure individuals (Mikulincer, 1998). Mikulincer (1998) found that secure individuals reported

more assertive anger expression than avoidant or anxious individuals, more anger control than anxious persons, and more positive and less negative affect (such as guilt) along with their angry emotions. Diamond and Hicks (2005) found that men with higher perceptions of security in their current relationships recovered more effectively from laboratory anger inductions.

Though studies consistently indicate that securely attached individuals experience anger less frequently and more adaptively than insecurely attached individuals, the findings for insecure groups are less consistent. For example, while some researchers find that avoidant individuals suppress their anger (Calamari & Pini, 2003; LaFontaine & Lussier, 2005; Mikulincer, 1998; Zimmermann, Maier, Winter, & Grossmann, 2001), others have observed avoidant individuals to display their anger during conflictual interactions (Kobak, Cole, Ferenz-Gillies, Fleming & Gamble, 1993; Rholes, Simpson, & Oriña, 1999); still, others find no relationship between avoidance and anger variables (Davis, Shaver, & Vernon, 2003; Diamond & Hicks, 2005). A similar but less pronounced discrepancy exists in the findings on how anxious individuals deal with anger. While most studies indicate a link between anxious attachment and maladaptive styles of anger coping (Calamari & Pini, 2003; Davis, Shaver, & Vernon, 2003; LaFontaine & Lussier, 2005; Mikulincer, 1998; Troisi & D'Argenio, 2004), at least one detected no such relationship (Diamond & Hicks, 2005).

The literature reviewed above, while providing useful information about the relationship between attachment and anger, is limited in that most of it examines anger, an emotion that typically arises within relational systems composed of at least two people, from an individual differences rather than a systemic perspective. A systemic

perspective expects that the characteristics of the person toward whom anger is directed will play an important role in influencing how that anger is expressed (Feeney, 2003). A key assumption of the current study is that one aspect of an anger target's character that could influence the anger-related behaviors of those whom they frustrate is the target's style of responding to anger.

### **Responding to Others' Anger: Effects on Anger Expression**

The literature that links attachment and anger examines how the attachment orientation of the angry person is related to his or her own anger coping but does not consider how the attachment orientation of the target of the anger might affect the angry person's anger-related behavior. Ignoring the influence of the relational context that is created by the target of anger prevents researchers from obtaining a complete and accurate understanding of why people use particular modes of anger coping. Prior studies have demonstrated that one partner's attachment orientation influences the other's behavior in the relationship (Feeney, 2003; Tran & Simpson, 2009) and there is reason to expect that one partner's attachment orientation will influence whether and how the other expresses anger.

An anger target's attachment orientation could influence his or her partner's anger expression through behaviors that may influence the partner to preemptively adjust the expression of anger based on expectations about the outcome of anger episodes. Rholes, Simpson, and Oriña (1999) found that more avoidant partners more often reciprocated anger. Mikulincer (1998) found that secure individuals had more positive expectations and insecure individuals had more negative expectations about the outcome of anger expression. These negative expectations, likely based on previous experiences with early

caregivers, previous romantic attachments, and current romantic attachments, could contribute to maladaptive styles of anger expression. Positive expectations, on the other hand, could contribute to more adaptive expression of anger. When a target of anger consistently responds to a partner's dysfunctional anger with patience and understanding, an anxious partner's dysfunctional anger might over time—due to a reduction in the expectation that they will not be heard unless their anger is loud and intense—give way to more adaptive expressions of frustration. Similarly, an avoidant person who typically suppresses anger or expresses it in a passive way might learn that it is safe to express anger in an assertive and direct manner when communicating with a securely attached partner who responds to anger patiently.

Though there is a dearth of research that has directly examined how people with different attachment orientations respond to and deal with anger that is directed at them, there are two bodies of research that are useful for drawing hypotheses about the relationship between the attachment orientation of a target of anger and how he or she is likely to respond to anger that is directed at him or her. The first body of literature addresses conflict, and suggests that more securely attached individuals respond to relationship conflicts by attempting to actively resolve them through efforts at rational discussion and compromise. The second relevant body of research deals with the construct of accommodation—which is defined in terms of a person's tendency to respond to a partner's negative and destructive behaviors in a relationship-enhancing and constructive manner. This literature suggests that more securely attached individuals respond to a partner's rude and mean behaviors with efforts to either assertively discuss the problem or forgive the partner. These two bodies of literature are reviewed below.

## **Attachment and Conflict**

Though most of the research on attachment and conflict does not explicitly address anger, it is reasonable to assume that people should respond similarly to anger as they do to conflict. Understanding how a person responds during conflict can be helpful for making predictions about how that person responds to anger directed at him or her; that, in turn, can be helpful for understanding how others express anger towards that person. The findings from research on attachment and conflict suggest that more insecure individuals should respond less constructively than secure individuals do when anger is directed at them. For example, secure men displayed fewer negative behaviors and secure women displayed more positive behaviors than insecure participants during a couples conflict management interaction (Creasey, 2002). Pistole and Arricale (2003) found that undergraduates who endorsed a secure attachment orientation were less likely to feel that arguments were threatening to their relationship, expressed less concern with closeness during the arguments, and engaged in less fighting and in more effective arguing.

More anxious individuals appear to be highly distressed by conflict. Highly anxious partners displayed greater stress and anxiety and reported feeling greater anger and hostility toward their partners while attempting to resolve a relationship problem (Simpson et al., 1996). Afterwards, the anxious partners viewed their relationship as less loving, committed, respectful, open, and supportive (Simpson, Rholes & Phillips, 1996). Campbell, Simpson, Boldry and Kashy (2005) found that during a two-week period, anxiously attached individuals reported more conflict than their partners did, suggesting that anxious individuals perceived more events as conflictual. On days when these anxious individuals perceived more conflict, they reported feeling less closeness to their



partner, less satisfaction with the relationship, and less optimism about the future of the relationship. When the same couples were observed during a conflict discussion task, the more anxious individuals were rated higher on overreacting and escalating conflicts. Powers, Pietromonaco, Gunlicks and Sayer (2006) found that more anxiously attached men had rapidly increasing levels of salivary cortisol in anticipation of a heated discussion about an unresolved relationship conflict and higher cortisol levels during the conflict; in addition, they were slower to return to baseline levels than less anxious men after the conflict ended.

Though more avoidant individuals do not appear to be as threatened by conflict as anxious individuals, they do seem uncomfortable with conflictual discussions and make an effort to escape them, even at the cost of sacrificing their own interests (Shi, 2003). Dismissive wives were observed to engage in more withdrawal during conflict interactions (Paley, Cox, Burchinal, & Payne, 1999) and dismissive undergraduates reported more conflict avoidance on self-report measures (Pistole & Arricale, 2003). More avoidant women's salivary cortisol levels rose during a heated and unresolved relationship conflict but quickly decreased to baseline levels after completing the discussion, suggesting that they were eager to end the conversation (Powers et al., 2006). More avoidant men behaved in a less warm and supportive manner toward their partners while attempting to resolve a relationship problem (Simpson et al., 1996)

### **Attachment and Accommodation**

The construct of accommodation—which is defined in terms of a person's tendency to respond to a partner's negative and destructive behaviors in a pro-relationship and constructive manner—may also be helpful for understanding how people

respond to anger that is directed at them. In addition to the affection and admiration that romantic partners feel for and express toward one another, when in conflict, times of stress or misunderstanding, they also frequently feel and express negative sentiment towards each other. According to interdependence theory, when one partner behaves in a rude or unpleasant manner, the other partner's reflexive response is to reciprocate the negativity (Rusbult & Van Lange, 2003). However, people who are interdependent and wish to preserve a relationship frequently override the compulsion to reciprocate negative behaviors.

The process of overriding the impulse to reciprocate a partner's negative behavior and instead respond in a pro-relationship manner is referred to as *accommodation* (Rusbult, Verette, Slovik, & Lipkus, 1991). Rusbult et al. (1991) identified four possible responses to a partner's negative behavior. Two of these are not accommodative: Exit and Neglect; two are accommodative: Voice and Loyalty. Exit responses include threatening to leave or leaving a relationship. Neglect responses include ignoring the partner and the problem, spending less time with the partner, and distancing oneself from the partner. Voice responses include addressing the partner's feelings, asking the partner to change, or changing oneself. Loyalty responses involve looking past the partner's negative behaviors, forgiving them, and hoping that things will change. These responses can be placed at varying places on two dimensions: extent of destructiveness to the relationship and extent of activity in response to the problem. The Voice and Loyalty responses are considered least destructive because they either seek to fix the relationship or avoid causing more problems. The Neglect and Exit responses are considered destructive responses because they exacerbate the rift in the relationship. The Loyalty response is

passive-constructive while the Voice response is active-constructive. The Neglect response is passive-destructive while the Exit response is active-destructive.

Gaines et al. (1997) found that insecure attachment was negatively correlated with Voice reactions to accommodative dilemmas and positively correlated with the destructive reactions Exit and Neglect. Secure attachment was positively correlated with Voice (Gaines et al., 1997; Scharfe & Bartholomew, 1995) and negatively correlated with Exit (Gaines et al., 2000; Gaines et al., 1997; Scharfe & Bartholomew, 1995) and Neglect responses (Gaines et al., 1997). Preoccupied individuals were less likely to report Exit responses than were avoidant individuals, who were less likely to report Exit responses than fearful individuals (Gaines et al., 2000).

### **Limitations Related to the Assessment of Anger**

The method of anger assessment used in previous studies of attachment and anger is limited in two ways. First, most of the literature on attachment and anger uses measures that assess non-relational anger across contexts rather than relational anger that is specific to romantic relationships in general or to a current relationship. These measures typically average responses to items that inquire about how anger is generally experienced or expressed, without reference to any particular context. For example, the Multidimensional Anger Inventory (MAI; Siegel, 1986) asks respondents to rate items such as, “I get angry when I am delayed” and “I get angry when someone embarrasses me.” The State Trait-Anger Expression Inventory (STAXI; Spielberger et al., 1999), the most commonly used measure of anger, asks responders to rate items such as, “I get angry quickly” and “I get into arguments.” Such measures are based on the assumption that average scores on a set of items represent a propensity for anger experience that can

be useful for making predictions about how people respond in different contexts.

However, the validity of this assumption is questionable given that a number of studies have demonstrated that people express anger differently based on how they perceive their target. For example, Van Coillie, Van Mechelen, and Ceulemans (2006) found that while some people displayed a general propensity to express anger in the same way across contexts, others communicated anger calmly to people of higher status but aggressively to people of lower status. Using measures of non-relational anger as it occurs across contexts limits the conclusions that researchers can make about anger expression in specific relationships. Because a measure that has been designed specifically to assess relational anger could not be found for use in this study, an existing anger measure has been modified to inquire about participants' anger experience and expression in a current romantic relationship.

A second limitation related to the assessment of anger is that the literature on attachment and anger utilizes measures of anger that assess only a limited number of dimensions of anger coping. Anger coping is generally assessed in terms of the extent to which it is expressed (let out) or suppressed (held in) and the extent to which deliberate effort is made to control the intensity and expression of felt anger (Spielberger, Sydeman, Owen, & March, 1999). Such an approach is limited because it fails to capture the full spectrum of ways in which anger can be expressed or suppressed. For example, some may express anger in a verbally aggressive manner, some people may express anger calmly to the target of their anger, and some may express their anger calmly to a supportive person who is not the target of their anger.

In addition, findings frequently describe individuals as high on both anger-in and anger-out (e.g., LaFontaine & Lussier, 2005); this contradiction highlights the limitations of an anger-in/anger-out dichotomy and suggests that a broader and more differentiated assessment of anger experience is necessary. Linden et al. (2003) developed the Behavioral Anger Expression Inventory (BARQ) to address these problems. The BARQ is being used in this study because it measures a broader spectrum of anger expression styles than are captured by existing measures of anger expression. Because the BARQ has received little attention since its appearance, this study will also contribute to the literature by testing the usefulness of a promising measure of anger expression. The BARQ assesses six dimensions of anger coping. Three dimensions capture ways of expressing anger: aggressively, assertively, or through a calm discussion with a supportive person. Two dimensions capture ways of hiding anger: avoiding the feeling and the event that caused it or channeling the feeling into other activities. A sixth dimension assesses a person's cognitive experience of angry thoughts: the extent to which one ruminates on angering events.

### **Summary**

Previous research suggests that there is a connection between anger coping and adult attachment orientation. However, this research is limited in that it does not examine how one relationship partner might influence the other's expression of anger. In addition, previous research is limited by the methods of anger assessment that have been utilized. The purpose of the current study is to extend previous research by including an examination of how one partner in a relationship influences the other's anger-related

behavior. A key assumption examined is that the quality of one partner's responses to anger will shape the other's anger-related behavior.

### **Hypotheses**

The literature reviewed above provides the basis for three sets of hypotheses about the interrelationships between attachment, anger, and accommodation. The hypotheses are either actor effect hypotheses or partner effect hypotheses. Actor effects are defined as the effects of a person's characteristics on his or her own outcomes. Partner effects are defined as the effects of a person's characteristics on a partner's outcomes.

#### Set 1. Actor and partner effects of attachment orientation on anger expression/coping

##### *Avoidance and anger expression*

Hyp 1: Actor effects: Attachment avoidance will be positively related to BARQ subscales *Avoidance* and *Diffusion*.

Hyp 2: Actor effects: Attachment avoidance will be negatively related to BARQ subscale *Assertion*, *Social Support Seeking*, and *Rumination*.

##### *Anxiety and anger expression*

Hyp 3: Actor effects: Anxious attachment will be positively related to BARQ subscale *Direct Anger-Out* and *Rumination*.

Hyp 4: Actor effects: Anxious attachment will be negatively related to BARQ subscale of *Assertion* and *Avoidance*.

Hyp 5: Partner effects: One partner's more anxious and avoidant attachment orientation will predict the other partner's more maladaptive forms of anger expression/coping (more *Direct Anger-out*, *Rumination*, and *Avoidance*; less *Assertion*, *Support Seeking*, and *Diffusion*).

#### Set 2. Actor effects of Attachment orientation on accommodative tendency

Hyp 6: Both anxious and avoidant attachment orientations will be positively related to *Exit* and *Neglect* responses.

Hyp 7: Both anxious and avoidant attachment orientations will be negatively related to *Voice* and *Loyalty*.

Set 3. Partner effects of accommodative tendency on anger expression/coping.

Hyp 8: A person's accommodative tendency (tendency to respond constructively to a partner's anger episodes) will be negatively related to his or her partner's scores on maladaptive styles of anger expression/coping (*Direct Anger-out* and *Avoidance*).

Hyp 9: An actor's accommodative tendency will be positively related to partner's scores on *Assertion*.

## **Method**

### **Procedures**

All participant recruitment and data collection were completed using SurveyGizmo, a web-based on-line survey system. Recruitment occurred in two stages. In the first stage, one of the partners, from here on referred to as the "primary participant," was recruited. This individual was informed that the criteria for study participation required that he or she be involved in a romantic relationship with a partner (from here referred to as the "secondary participant") of at least 3 months duration, that both partners be 18 years of age or older, and that the primary participant provide the secondary participant's email address.

Primary participants were recruited through the SONA system, the University of Houston collaborative research participant pool shared by the Departments of Psychology and Educational Psychology. Primary participants entered their partner's email address following their responses to instruments measuring the constructs of interest in the study.

The second stage of recruitment began upon the primary participant's completion of his or her survey. Once the primary participant submitted the survey, the web survey application automatically sent a recruitment email to the secondary participant. The

recruitment email included a link to a web-based survey that contained a consent form and the same questionnaires that the primary participant had completed. The link address contained a unique identification code that was associated with the primary participant's data. This code permitted responses from both partners to be matched so that the *dyad* rather than *individual* could be used as the unit of analysis in the study.

Extra credit points were assigned to SONA students in exchange for their and their partners' participation. In addition, both relationship partners were entered into a raffle for a chance to win a twenty-dollar gift card.

### **Participants**

A total of 841 surveys were submitted (541 by primary participants and 300 by secondary participants). Of these, 647 were removed from the analysis, leaving a total of 97 dyads (194 participants) for testing this study's hypotheses. The criteria by which dyads were either kept in the analysis or removed are described below.

In the first stage of recruitment, 541 surveys were submitted by primary participants. For 300 of these primary participants, a survey was submitted via the link included in the invitation email sent in stage two of recruitment. Of the 300 dyads, 152 had to be removed because the primary, secondary, or both participants had responded to at least one of the validity items incorrectly (validity items are described below). Of the remaining 148 dyads, 16 were removed after being identified as multiple submissions. Of the remaining 132 dyads, 19 were removed because both the primary and secondary survey submissions were identified as having a high likelihood of having been provided by the same person. Of the remaining 113 dyads, 3 were removed because the primary participant's report of his or her sex was discrepant from the secondary participant's



report (for example, a primary participant self-identified as male but the secondary participant identified the primary participant as female). Of the remaining 110 dyads, 9 were removed because one or both participants had initially been disqualified by the screening questionnaire but returned to complete the survey and gained access to it by entering demographic information that passed the screening questions (i.e. relationship length of at least 3 months, age 18 or older). Finally, of the remaining 101 dyads, 4 were removed because they were same-sex relationships. These couples were removed because the statistical method used in the current study to test the Actor-Partner Interdependence Model requires that dyads be distinguishable by sex (Kenny, Kashy, & Cook, 2006). Thus, a total of 97 heterosexual couples remained for use in subsequent analyses.

Nineteen of the 97 couples (19.6%) that were kept in the analysis reported being married, 20 couples (20.6%) reported being in a long distance relationship, and 37 couples (38.1 %) reported that they live together. The average age of female partners was 22.8 (median 21; ranging from 18 to 59) and the average age for male partners was 24.7 (median 23; ranging from 18 to 66). Average relationship length was 3.8 years (median 2.5; ranging from 3 months to 25 years). 30 of the 97 women (31%) and 26 of the 97 men (27%) identified as Hispanic. More detailed racial and ethnic background information of participants is presented in Table 1 and Table 2.

Table 1

*Hispanic origin breakdown*

	Men		Women	
	no.	%	no.	%
Mexican	19	19.6	17	17.5
Cuban	0	0	3	3.1
Other Hispanic	7	7.2	10	10.3
Total	26	26.8	30	30.9

Table 2

*Race*

Race	Men		Women	
	no.	%	no.	%
Caucasian	50	51.5	48	49.5
Black or African American	10	10.3	8	8.2
Chinese	7	7.2	5	5.2
Filipino	2	2.1	0	0
Korean	0	0	1	1.0
Vietnamese	3	3.1	2	2.1
Guamanian or Chamorro	1	1.0	1	1.0
Other Asian	1	1.0	4	4.1
Other Pacific Islander	0	0	1	1.0
Asian Indian	2	2.1	3	3.1
Pakistani	6	6.2	4	4.1
Multi-racial	6	6.2	8	8.2
Other	9	9.3	12	12.4
Total	97	100	97	100

**Instruments**

Participants completed questionnaires that assessed adult attachment orientation, style of anger expression, and tendency to accommodate partner's anger-related behaviors.

**Experiences in Close Relationships Scale.** Participants reported their adult attachment orientation on the 12-item Experiences in Close Relationships Short Form (ECR-S; Wei, Russell, Mallinckrodt, & Vogel, 2007). The ECR-S was factor-analytically derived from the original 36-item Experiences in Close Relationships Scale (ECR; Brennan et al., 1998), which itself had been factor-analytically derived from 323 items across 60 attachment scales. Six of the 12 ECR-S items represent attachment avoidance (e.g. "I want to get close to my partner, but I keep pulling back") and six items represent attachment anxiety (e.g. "My desire to be very close sometimes scares people away").

Participants respond to items on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). The scale is scored such that higher scores indicate more attachment avoidance and anxiety. Wei et al. reported evidence of construct validity indicated by significant correlations between attachment insecurity and negative emotional states; in addition, attachment anxiety was significantly associated with emotional reactivity but not emotional deactivation while attachment avoidance demonstrated the opposite pattern of associations. The developers of the short form demonstrated adequate internal consistency for both subscales, with ranges of .77 to .86 for Anxiety and .78 to .88 for Avoidance. Time interval test-retest scores suggest that the scale is relatively stable over time ( $r = .82$  for Anxiety and  $.89$  for Avoidance).

Table 3

*Cronbach alphas for all measures.*

Subscale	Sample	Men	Women
ECR Anxiety	.70	.74	.65
ECR Avoidance	.79	.81	.80
BARQ Assertion	.78	.81	.76
BARQ Avoidance	.75	.71	.77
BARQ Diffusion	.57	.48	.67
BARQ Anger-out	.78	.77	.79
BARQ Support Seeking	.88	.89	.87
Acc Exit	.73	.80	.64
Acc Neglect	.57	.61	.54
Acc Voice	.81	.81	.82
Acc Loyalty	.80	.79	.79
MCSD	.69	.72	.65

*Note.* ECR = Experiences in Close Relationships scale; BARQ= Behavioral Anger Response Questionnaire; Acc = Accommodation scale; MCSD= Marlowe-Crowne Social Desirability scale.

In the current sample, the Anxiety subscale demonstrated a Cronbach alpha of .70 for the entire sample, .74 for men, and .65 for women. The Avoidance subscale demonstrated a Cronbach alpha of .79 for the entire sample, .81 for men, and .80 for women (Table 3).

**Behavioral Anger Response Questionnaire.** Anger expression styles were measured using a revised version of the 37-item Behavioral Anger Response Questionnaire (BARQ; Linden et al. 2003). The items of the original BARQ were modified to refer to the participant's current romantic partner rather than to a general target of anger. All six BARQ subscales were used in this study: Assertion (6 items; e.g. "In a calm voice, I tell the angering person how I honestly feel."), Direct Anger-Out (7 items; e.g. "I raise my voice."), Social Support-Seeking (6 items; e.g. "I leave the situation, find a supportive person to listen to my story, and get his/her advice."), Avoidance (6 items; e.g. "I avoid making a scene and keep my feelings to myself"), Diffusion (6 items; e.g. "I just keep busy hoping to work off my anger."), and Rumination (6 items; "In my mind, I try to figure out why I really got upset."). Each item is scored on a 5-point scale with higher scores indicating greater endorsement of each behavior pattern. The structure of the BARQ has been supported through factor analysis, and the subscales have demonstrated adequate internal consistency, with alpha coefficients ranging from .65 for Diffusion to .85 for Support-Seeking. Linden and colleagues (2003) demonstrated evidence of convergent and discriminant validity through comparisons of the BARQ subscales with a measure of state and trait anger and the NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1992). Finally, Linden et al. (2003) report that in a different set of studies, the BARQ was found to predict blood pressure

among healthy and hypertensive patients. Cronbach alphas for the current sample are displayed in Table 3.

**Accommodation Scale.** Participants reported on how they typically respond to accommodative dilemmas on the 16-item Accommodation Scale (Rusbult et al., 1991). The instructions of the scale were revised to direct participants to consider their typical responses to their current partners' expression of anger toward them. The Accommodation scale consists of four subscales to measure each of the responses to accommodative dilemmas described above: Exit, Voice, Neglect, and Loyalty. Example items include, "When my partner says something really mean, I threaten to leave him/her" (Exit); "When my partner is rude to me, I try to resolve the situation and improve conditions" (Voice); "When my partner does something thoughtless, I avoid dealing with the situation" (Neglect); "When my partner behaves in an unpleasant manner, I forgive my partner and forget about it" (Loyalty). Each item is scored on a 9-point scale: 0 (Never do this) to 8 (Constantly do this). Across six studies, Rusbult (1991) obtained an average internal consistency coefficient of .88 for destructive responses (Neglect + Exit) and .71 for constructive responses (Loyalty + Voice). In addition, Rusbult obtained acceptable convergent and discriminant validity by calculating correlations between open-ended items and the structured self-report measures of each construct. Subsequent studies have also demonstrated acceptable internal consistency for scores on each the subscales: .88 for Exit, .73 for Voice, .87 for Loyalty, and .88 for Neglect (Gaines et al., 2000). Cronbach alphas for the current sample are displayed in Table 3.

**Marlowe-Crowne Social Desirability Scale, Short Form.** Due to the possibility that responses about anger might be influenced by one's tendency to present oneself favorably, a social desirability measure was included in the study. Participants' tendency to respond to items in a culturally acceptable manner will be assessed using a short form (Ballard, 1992) of the Marlowe-Crowne Social Desirability Scale (M-C SDS; Crowne & Marlowe, 1960). The scale is composed of statements that describe culturally appropriate behaviors (e.g. "I'm always willing to admit it when I make a mistake") that participants are asked to endorse as either true or false. Loo and Loewen (2004) evaluated several short form versions of the M-C SDS using confirmatory factor analysis and item and scale analysis. These authors identified Ballard's (1992) version as the most psychometrically valid compared to other available short versions of the M-C SDS. The current study will, based on the recommendation of these authors, use Ballard's (1992) 13-item short form ( $\alpha = .71$ ) of the M-C SDS. In the current sample, the scale demonstrated a Cronbach alpha of .69 for the entire sample, .72 for men, and .65 for women (Table 3).

**Demographic items.** All participants completed a demographic questionnaire that included items inquiring about race, marital status, number of previous relationships, whether current relationship is long distance, whether partners cohabit, and length of current relationship.

**Data validation items.** Four validity items were included among the items of the instruments described above. The four validity items were designed to serve as indicators of potential random responding or inattention to item content. For example, one of the validity items asked participants to "Select the highest number rating as your response

here.” In this case, the selection of a Likert score lower than the highest available rating would suggest that the participant may not have been attending adequately to item content.

## **Results**

Data gathered from both members of a couple are likely to violate the statistical assumption of independence of observations for three reasons (Kenny et al., 2006). First, members of couples are typically similar to one another even prior to meeting. Second, members of couples may influence one another during their relationship. Third, they are likely to share common experiences that may affect them in similar ways. These interdependencies pose a problem because inferences in data analysis are based on inductions from observations of repeatedly occurring phenomena; for example, we assume that two or more phenomena are related in some way when they *repeatedly* co-occur. When couples data are nonindependent and the individual is treated as the unit of analysis, the inferences are based on twice as many data points as they should be. This increases the likelihood of Type I and Type II errors.

In order to deal with the problem of nonindependent data in the current study, hypotheses were tested using the Actor-Partner Interdependence Model (APIM), a data analytic strategy that takes into account the nonindependence of dyadic data by treating each couple, rather than each individual, as the unit of analysis (Kenny et al., 2006). There are several analytic methods that can be used to test an APIM; in this study, multilevel linear modeling (MLM) was used. MLM is a statistical technique based on a conception of the data structure as having multiple levels, with lower levels nested within higher levels. In the case of a couples study there are two levels: level one is the person

and level two is the dyad within which the person is nested. The statistical software program SPSS 18.0 was used to conduct the primary data analyses.

The APIM tests for actor and partner effects. Actor effects are the effects of a person's own characteristics on his or her own outcomes. In this study, the actor effects tested are the extent to which each person's adult attachment orientation predicted his or her own accommodative tendency and anger coping style. Partner effects are the effects of one person's characteristics on another person's outcomes. The partner effects tested are the extent to which one partner's attachment orientation and accommodative tendency predicted the other's anger coping style. The APIM allows for tests of actor effects while controlling for partner effects, and vice versa.

Kenny et al.'s (2006) recommendations for working with dyadic data guided the decisions made about dataset organization, selection of statistical methodology, and procedures for running analyses in SPSS. The data set was organized in a pairwise structure, such that there were two rows per couple and each row contained both the primary and secondary participant's scores. In addition, all predictor variables were grand mean centered (i.e., the grand mean of a subscale for both partners was subtracted from each partner's individual scores on that subscale).

### **Preliminary Analyses**

Preliminary analyses indicated that two relationship variables, marital status and long distance, were significantly related to several of the outcome measures. For men, being married was negatively related to the Avoidance ( $r = -.266, p < .05$ ) and Support Seeking ( $r = -.229, p < .05$ ) subscales of the BARQ; and the Loyalty ( $r = -.213, p < .05$ ) and Voice ( $r = -.322, p < .01$ ) subscales of the Accommodation scale. For women, being in a



long distance relationship was positively related to the Loyalty subscale of the Accommodation scale ( $r = .232, p < .05$ ). In addition to these relationship variables, women's age was negatively related to both their own ( $r = -.231, p < .05$ ) and their partner's ( $r = -.200, p < .05$ ) Anger-out scores. Because these correlations were relatively low they were not included as controls in order to avoid increasing the complexity of the statistical models. Relationship length was not significantly related to any predictor variables.

Bivariate correlations indicated many significant relationships between partner scores, suggesting that the data is non-independent (Table 4). In addition, individual Marlowe-Crowne Social Desirability scores were found to be significantly correlated with many of the outcome measures (Table 5), indicating that it would be necessary to control for the effects of social desirability on outcome variables.

### **Primary Analyses**

Study hypotheses were tested via the SPSS 18.0 mixed model procedure using the syntax provided by Kenny et al. (2006). A total of 16 mixed models were tested. Each model contained the following components: (a) both partners' scores for each predictor variable being tested in the model (for example, both the male partners' and the female partners' scores on attachment avoidance were entered as predictors of an anger subscale); (b) a social desirability score to control for the effect of socially desirable responding; (c) the sex variable entered as a fixed and repeated effect because the dyads in this study are distinguishable by gender. Because running 16 statistical models may increase the likelihood of Type I errors, applying a more conservative  $p$ -value than the traditional .05 may be necessary. If a Bonferroni correction is applied to the analyses

Table 4

*Partner correlations: correlations of one partner's scores with the other partner's scores.*

	M_Anx	M_Avoid	M_Assert	M_BQAv	M_Diff	M_AngO	M_Sup	M_Exit	M_Loy	M_Neg	M_Voi	M_MC
F_AnX	.245*	.264**	.007	-.018	-.072	.060	-.026	.144	-.096	.065	-.026	-.016
F_Avoid	.297**	.118	-.134	-.158	-.148	-.101	.025	.165	-.122	.007	-.087	-.067
F_Assert	-.129	-.116	.364**	.130	.058	-.202*	.080	-.276**	.069	-.141	.289**	.110
F_BQAv	.011	-.003	.019	.025	.050	-.195	.076	-.094	-.022	-.013	.058	.025
F_Diff	.032	-.261**	.037	-.058	-.007	-.051	.035	-.173	-.168	-.230*	.190	-.037
F_AngO	.105	-.088	-.159	-.127	-.163	.212*	.005	.036	-.127	-.083	.058	-.050
F_Sup	.025	-.086	.077	-.118	.105	-.256*	.186	-.131	-.136	-.099	.129	.062
F_Exit	.251*	.061	-.198	.014	-.114	.220*	.021	.329**	.014	.083	-.025	-.015
F_Loy	.036	-.056	-.016	.023	.017	-.065	.128	.009	.107	.093	-.034	-.077
F_Neg	.303**	.120	-.049	-.204*	-.120	.024	.089	.227*	-.076	.112	-.116	-.213*
F_Voi	-.297**	-.103	.169	.087	.080	-.169	.039	-.151	-.105	-.145	.144	.086
F_MC	-.210*	-.044	.013	.158	.049	-.091	.170	-.129	.141	-.036	.025	.187

*Note.* F = female; M = male. Anx = Attachment Anxiety, Avoid= Attachment Avoidance, BQAv = BARQ (Behavioral Anger Response Questionnaire) Avoidance, BQAssert = BARQ Assertion, Diff = BARQ Diffusion, AngO = BARQ Anger-Out, Sup = BARQ Support-seeking, Exit= Accommodation (Acc) Exit, Loy= Acc Loyalty, Neg = Acc Neglect, Voi = Acc Voice, MC = Marlowe-Crowne Social Desirability.

\* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed)

Table 5

*Actor correlations: correlations of a person's scores with his/her own scores.*

	Anx	Avoid	Assert	BQAv	Diff	AngO	Sup	Exit	Loy	Neg	Voi	MC
Anx	-	.348**	.079	-.160	.198	.231*	.435**	.389**	-.050	.198	.117	-.255*
Avoid	.291**	-	-.076	.111	.059	.093	.192	.502**	-.082	.505**	-.372**	-.221*
Assert	.008	.002	-	.138	.241*	-.356**	.225*	-.296**	.286**	-.070	.600**	.174
BQAv	.034	.283**	.431**	-	.254*	-.101	.068	.085	.450**	.410**	-.022	.252*
Diff	.043	.182	.212*	.393**	-	-.048	.311**	.091	.258*	.296**	.184	.078
AngO	.214*	-.012	-.365**	-.264**	.129	-	.060	.571**	-.116	.110	-.262**	-.456**
Sup	.008	.124	.261**	.410**	.414**	-.009	-	.312**	.041	.199	.170	-.228*
Exit	.237*	.156	-.420**	-.167	.013	.510**	-.086	-	-.174	.458**	-.450**	-.408**
Loy	.149	.103	.316**	.473**	.149	-.212*	.156	-.146	-	.264**	.342**	.276**
Neg	.287**	.430**	.081	.386**	.238*	-.031	.224*	.219*	.527**	-	-.288**	-.126
Voi	.094	-.188	.561**	.164	.112	-.254*	.192	-.379**	.363**	-.114	-	.261**
MC	-.227*	-.145	.222*	.167	.085	-.285**	.108	-.283**	.067	-.205*	.148	-

*Note.* In the matrix, correlations for women appear below the diagonal. Correlations for men appear above the diagonal.

Anx = Attachment Anxiety, Avoid= Attachment Avoidance, BQAv = BARQ (Behavioral Anger Response Questionnaire) Avoidance, Assert = BARQ Assertion, Diff = BARQ Diffusion, AngO = BARQ Anger-Out, Sup = BARQ Support-seeking, Exit= Accommodation (Acc) Exit, Loy= Acc Loyalty, Neg = Acc Neglect, Voi = Acc Voice, MC = Marlowe-Crowne Social Desirability.

\* $p < .05$  (2-tailed), \*\* $p < .01$  (2-tailed)

described below, the  $p$ -value would be .003 ( $.05 / 16 = .003$ ). However, such a stringent  $p$ -value is not necessary because the Actor-Partner Interdependence model itself reduces the likelihood of Type I error. For this reason, tests with a  $p$ -value of .01 are considered to meet significance and tests below .05 are viewed as approaching significance but should be interpreted with caution.

It was hypothesized that there would be actor and partner effects of attachment orientation on anger coping style. For each of the six anger outcome variables, each partner's anxious and avoidant attachment scores were entered as fixed effects (4 parameters total). Thus, there were a total of six models testing hypotheses about the relationship between attachment orientation and anger coping style (Table 6). There were significant actor and partner effects for ECR subscales predicting anger coping behavior. Actor effects were significant in predicting the Avoidance, Diffusion, Anger-out, Rumination, and Support subscales of the BARQ. Individuals who were more avoidantly attached reported more avoidance of anger expression,  $b = .24$ ,  $t(185.86) = 3.66$ ,  $p < .001$ . Those who were more anxiously attached scored higher on the Diffusion subscale,  $b = .13$ ,  $t(176.53) = 2.60$ ,  $p = .01$ ; the Anger-out subscale,  $b = .14$ ,  $t(179.83) = 2.73$ ,  $p = .007$ ; the Rumination subscales,  $b = .20$ ,  $t(172.04) = 4.30$ ,  $p < .001$ ; and the Support subscale,  $b = .23$ ,  $t(178.73) = 3.25$ ,  $p = .001$ . There also were significant partner effects in predicting the Diffusion and Anger-out subscales of the BARQ, but only for attachment Avoidance. Having a more avoidantly attached partner predicted lower scores on the Diffusion subscale,  $b = -.22$ ,  $t(184.60) = -3.549$ ,  $p < .001$ ; and the Anger-out subscale,  $b = -.16$ ,  $t(178.53) = -2.61$ ,  $p = .01$ .

Table 6

Attachment orientation predicting BARQ subscales

Predictor	$\beta$	$SE$	$t$
Assertion as outcome variable			
Sex	-.01	.05	-0.14
MCSD	.06	.02	3.10**
Actor Anxiety	.10	.05	1.88
Partner Anxiety	-.02	.05	-0.39
Actor Avoidance	-.015	.07	-0.22
Partner Avoidance	-.12	.07	-1.80
Avoidance as outcome variable			
Sex	-.10	.06	-1.78
MCSD	.06	.02	3.31***
Actor Anxiety	-.06	.05	-1.03
Partner Anxiety	-.01	.05	-0.12
Actor Avoidance	.24	.07	3.66***
Partner Avoidance	-.06	.06	-0.97
Diffusion as outcome variable			
Sex	.04	.05	0.67
MCSD	.04	.02	1.92
Actor Anxiety	.13	.05	2.61*
Partner Anxiety	.00	.05	0.04
Actor Avoidance	.09	.06	1.41
Partner Avoidance	-.22	.06	-3.55***
Anger-out as outcome variable			
Sex	-.03	.05	-0.58
MCSD	-.10	.02	-5.14***
Actor Anxiety	.14	.05	2.73**
Partner Anxiety	.06	.05	1.12
Actor Avoidance	-.07	.06	-1.19
Partner Avoidance	-.16	.06	-2.61*
Rumination as outcome variable			
Sex	.01	.05	0.20
MCSD	-.06	.02	-3.41**
Actor Anxiety	.20	.05	4.30***
Partner Anxiety	-.00	.05	-0.10
Actor Avoidance	-.03	.06	-0.48
Partner Avoidance	-.08	.06	-1.48
Support-seeking as outcome variable			
Sex	.20	.07	3.06**
MCSD	-.02	.03	-0.63
Actor Anxiety	.23	.07	3.25**
Partner Anxiety	-.06	.07	-0.84
Actor Avoidance	.11	.09	1.32
Partner Avoidance	-.10	.09	-1.21

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

It was hypothesized that there would be an actor effect of attachment orientation on accommodative style. That is, that one's attachment orientation would predict one's tendency to either be accommodative or not accommodative in response to a romantic partner's expression of anger. Accommodative responses were measured by the Voice and Loyalty subscales; non-accommodative responses were measured by the Exit and Neglect subscales. This hypothesis was tested by entering each partners' anxious and avoidant attachment scores as fixed effects (4 parameters total) along with social desirability and sex into a model predicting each accommodation subscale; thus there were a total of four models with six parameters testing this hypothesis (Table 7). Actor effects of attachment orientation on accommodative style were significant for the Exit, Neglect, and Voice subscales of the Accommodation scale. As expected, being more avoidantly attached significantly predicted greater endorsement of Exit,  $b = .35$ ,  $t(169.63) = 3.14$ ,  $p = .002$  and Neglect responses,  $b = .61$ ,  $t(183.13) = 5.94$ ,  $p < .001$ ; and less endorsement of Voice responses,  $b = -.48$ ,  $t(176.97) = -4.37$ ,  $p < .001$ . Also as expected, being more anxiously attached significantly predicted greater endorsement of Exit responses during angry interactions,  $b = .22$ ,  $t(178.96) = 2.45$ ,  $p = .015$ . However, contrary to expectations, those who were more anxiously attached were also more likely to report using the constructive voice response,  $b = .39$ ,  $t(177.41) = 4.32$ ,  $p < .001$ .

It was hypothesized that there would be partner effects of accommodation style on anger coping style; that is, that one person's accommodation style would predict his or her partner's anger coping style. This hypothesis was tested by conducting a mixed model analysis (one for each of the six anger subscales, thus six models) with each partners' accommodation subscale (four subscales; thus 8 parameters) entered as fixed effects,

Table 7

Attachment orientation predicting Accommodation subscales

Predictor	$\beta$	$SE$	$t$
Exit as outcome variable			
Sex	-.04	.08	-0.54
MCSD	-.14	.03	-4.14***
Actor Anxiety	.22	.09	2.45*
Partner Anxiety	.07	.09	0.84
Actor Avoidance	.35	.11	3.14**
Partner Avoidance	.00	.11	0.03
Neglect as outcome variable			
Sex	-.14	.09	-1.62
MCSD	-.03	.03	-.85
Actor Anxiety	.11	.08	1.27
Partner Anxiety	.07	.08	0.90
Actor Avoidance	.61	.10	5.94***
Partner Avoidance	-.04	.10	-0.43
Loyalty as outcome variable			
Sex	.45	.11	-4.01***
MCSD	.12	.04	2.78**
Actor Anxiety	.16	.11	1.44
Partner Anxiety	.00	.11	0.00
Actor Avoidance	.04	.14	0.27
Partner Avoidance	-.19	.13	-1.43
Voice as outcome variable			
Sex	-.09	.09	-1.01
MCSD	.11	.03	3.15**
Actor Anxiety	.39	.09	4.32***
Partner Anxiety	-.12	.09	-1.30
Actor Avoidance	-.49	.11	-4.37***
Partner Avoidance	-.16	.11	-1.48

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ 

along with social desirability and gender (a total of 10 parameters). Assertion was the only outcome variable for which there were significant partner effects, thus only the results of the model predicting Assertion is presented here (Table 8). In the model predicting the Assertion subscale of the BARQ, there were significant partner effects for the Exit and Voice subscales in the expected direction. A partner's use of Exit responses during anger episodes was significantly related to the other partner reporting less

Table 8

Accommodation style predicting BARQ Assertion scores

Predictor	$\beta$	<i>SE</i>	<i>t</i>
Sex	.03	.05	0.62
MCSD	.02	.02	1.23
Actor Exit	-.07	.04	-1.92
Partner Exit	-.08	.04	-2.16*
Actor Neglect	.11	.04	2.59*
Partner Neglect	.04	.04	0.98
Actor Loyalty	.01	.04	0.38
Partner Loyalty	-.02	.04	0.65
Actor Voice	.28	.04	7.44***
Partner Voice	.08	.04	1.98*

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

assertive anger expression,  $b = -.08$ ,  $t(169.78) = -2.16$ ,  $p = .03$ . On the other hand, a partner's use of Voice responses during anger episodes was significantly related to the other partner's use of more assertive anger expression,  $b = .07$ ,  $t(177.44) = 1.98$ ,  $p = .05$ .

### Discussion

The current study sought to extend previous research by examining how the personality characteristics of one partner in a relationship influence the other's anger-related behavior. A key assumption was that one partner's attachment orientation and the quality of his or her responses to anger would shape the other's anger-related behavior. Results of mixed model analyses lend partial support to attachment theory based predictions about the influence of personality and relationship variables on anger-related behavior. The first set of mixed models (Table 6) tested the relationship of attachment orientation to a person's own as well as his or her partner's anger-related coping style. According to attachment theory, avoidant individuals use deactivating strategies and anxious individuals use hyperactivating strategies when dealing with distress (Mikulincer



& Shaver, 2007). As would be expected based on attachment theory and previous research, results suggest that when angered by their partners, more avoidantly attached individuals prefer to hide anger from their romantic partners. On the other hand, more anxiously attached individuals endorse more expressive coping behaviors. While previous research has linked anxious attachment primarily to maladaptive forms of anger expression, the results of this study indicate that in addition to reporting more aggressive forms of anger expression, more anxiously attached individuals also endorse forms of coping with anger that can be considered adaptive in certain contexts. Specifically, more anxious individuals reported greater support seeking when angry and greater indirect expression of anger by channeling it into either work, physical exercise, or art (as measured by the Diffusion subscale). This is consistent with findings from Feeney's (1999) study, in which anxiously attached individuals reported more suppression and control of anger.

It is noteworthy that there were no actor effects of avoidant attachment on any form of anger coping assessed by the BARQ other than avoidance of anger-related interactions. Thus, the results of this study do not provide any indication of what more avoidant individuals might do with their anger other than make attempts to ignore it (as indicated by endorsement of items such as "I put the angering event out of my mind."). These findings are consistent with previous studies linking attachment avoidance to anger suppression (e.g., Mikulincer, 1998) and research suggesting that avoidant individuals may deactivate the attachment system in response to attachment-related threats (Fraley & Shaver, 1997). Perhaps more avoidantly attached individuals use anger coping strategies that are not examined by the subscales of the BARQ; future research should examine this

possibility. Given that direct anger expression toward the source of anger may serve important functions in the maintenance of relationship satisfaction, future researchers should examine the relational implications of an avoidant style of anger coping.

While there were actor effects of attachment orientation on four of the six anger subscales, partner effects were scarcer. Partner effects of attachment orientation on anger emerged only for attachment avoidance. Having a more avoidantly attached partner predicted less use of the adaptive strategy of channeling anger into other activities, as indicated by the negative relationship between one partner's avoidance and the other's Diffusion scores. Contrary to expectations, having an avoidantly attached partner predicted less endorsement of aggressive expression of anger. These findings support a systemic perspective on anger coping but are not consistent with attachment theory, which predicts that hyperactivating strategies arise in reaction to attachment figure non-responsiveness. Given that more avoidantly attached individuals work to avoid the experience and expression of anger (as indicated by previous research and current findings discussed above), it may be the case that their partners adapt by reducing or eliminating the more heated forms of anger expression (such as, "I raise my voice") from their communication style. While the reduction of these more aggressive methods of communicating anger can be thought of as salutary, they might also be an indicator of one partner's dampening of the expression, and maybe even experience, of valid frustrations in response to the other's intolerance for conflict; this dampening may be the reason that having an avoidant partner predicted lower Diffusion scores. Such a dynamic could be harmful for the long-term health of the relationship and should be explored in future research. If conceived in this way, these findings are consistent with previous

research that has demonstrated the destructive impact on relationship communication styles of having one or more insecurely attached partners in a relationship (e.g. Creasey, 2002). While the analyses of the current study did not test interaction effects of one partner's avoidance and the other's anxiety, it may be the case that actor effects of attachment anxiety on aggressive expression of anger are more likely to occur when partnered with an avoidant individual; future studies should test this possibility.

Based on the reasoning that each romantic partner's style of anger coping may in part be related to how his or her partner responds to anger when it is expressed, the second and third set of mixed models examined the relationship of accommodation to attachment and anger expression. According to attachment theory, securely attached individuals' positive appraisals of and expectations about relationship events lead to more constructive responses to romantic partners' negative behaviors (Mikulincer & Shaver, 2007). The second set of mixed models (Table 7) examined the relationship of each person's attachment orientation to his or her own accommodative tendencies (actor effects). It was hypothesized that more insecurely attached individuals would report responding less adaptively to the anger expression of their romantic partners (i.e., endorse more exit and neglect and less voice and loyalty). This was largely the case, with more avoidantly attached individuals reporting that, in response to a partner's expression of anger, they either ignore their partner or threaten to leave their partner. In addition, more avoidantly attached individuals reported that they typically do not attempt to discuss their partner's anger in a constructive manner (as assessed with the Voice scale of the Accommodation measure). The relationship between anxious attachment orientation and accommodation was partially consistent with expectations. As with avoidant attachment,

greater anxiety was related to greater endorsement of exit behaviors in response to anger episodes. However, greater anxiety was also related to endorsement of attempts at constructive discussion of the causes of a partner's anger. Though not predicted in the current study, this contradiction is consistent with attachment theory, and may reflect the more anxious individual's limitations in controlling aggressive expression of anger along with his or her fears of abandonment and intolerance for relational distance. On the other hand, it may reflect the influence of personality or contextual factors not examined in this study.

When it comes to expressing anger and responding to a partner's anger, more anxious individuals demonstrate a propensity for both maladaptive (Anger-out, Rumination, Exit) and adaptive responding (Diffusion, Support-seeking, Voice). This variety in the anger coping repertoire of more anxious individuals does not seem to be present for those individuals who are more avoidantly attached. Perhaps this is because the manner in which anxiously attached individuals deal with anger episodes is influenced by their partners' characteristics whereas the anger-coping methods of more avoidantly attached individuals may not be as bound to relational factors. This supposition is supported by findings highlighted earlier, that while there were no partner effects of anxiety on either the BARQ or Accommodation subscales, there were two significant partner effects for attachment avoidance.

Based on the assumption that a person's style of responding to a romantic partner's anger may influence how the partner expresses anger, the third set of mixed models (Table 8) tested the relationship between one partner's accommodative style and the other partner's anger coping style (partner effects). The only anger subscale for which

there was a partner effect of accommodation style was the Assertion subscale. The romantic partners of individuals who endorsed higher Exit responses reported less use of assertive anger expression; on the other hand, the romantic partners of individuals who endorsed more Voice responses reported more use of assertive anger expression. This pattern suggests that the constructive accommodative responses of one partner may contribute to the constructive expression of anger by the other partner. As with the findings of partner effects of attachment on anger coping, these partner effects support a systemic perspective of attachment-related functioning in romantic relationships and are consistent with attachment theory. However, the models predicting these relationships were significant at the .05 level and thus should be interpreted with caution.

While confirming some expectations about attachment organization and anger coping, current findings also add to the literature by providing a more nuanced depiction of anger-related behaviors of intimate relationship partners. The anger scale used in this study permits an examination of the *ways* in which individuals express or contain anger, rather than only informing us of whether anger is expressed or not. In addition, while previous research on attachment and anger has overwhelmingly focused on anger scales that by their nature assess anger expression across contexts, the current study examined anger expression as it occurs in a current romantic relationship. Finally, including both partners' data in mixed model analyses allows for the control of the impact of one partner's scores while examining the relationships between the other partner's scores on particular variables. This type of control reduces Type I and Type II error, permits an examination of how one partner influences the other, and provides greater certainty that

observed relationships between one partner's criterion and outcome variables are independent of the other partner's variables.

### **Limitations**

While addressing several important limitations of existing research, the present study is itself limited in at least six ways. First, the study uses a convenience sample and the generalizability of conclusions is limited. Second, the study employs a single time-point design to assess interpersonal influence that is hypothesized to occur over an extended period of time. A better approach to study the phenomenon of interest in this study would be to use longitudinal designs, particularly ones that rely on researcher observation in addition to participant self-report of behavior. Third, while the BARQ is an improvement on anger coping measures typically used in research, it does not capture the multitude of anger-related behaviors that have been identified in the literature. Fourth, the Accommodation Scale does not capture the multitude of ways in which a person can respond to anger. For example, it assesses for general modes of responding such as threatening to leave or ignoring a partner, but it does not ask about specific behaviors such as crying, becoming defensive, or reciprocating anger. In addition, it assesses how people respond to anger that is expressed in a maladaptive way but it does not assess how people respond to anger that is expressed in an assertive and constructive manner. Fifth, the Accommodation Scale and the BARQ have been modified for the purposes of this study. Though the modifications are minimal and the measures have been used to assess constructs that are nearly identical to those for which they were originally designed, the fact remains that the revised scales have not been validated by previous research. Finally,

the BARQ Diffusion subscale and the Accommodation Neglect subscale demonstrated weak reliabilities for both men and women and should be interpreted with caution.

### **Implications for clinical practice**

The findings of the current study reinforce the importance of attending to both intrapsychic and systemic dynamics of attachment styles in counseling with individuals and couples. In addition to working with individual clients to repair attachment schemas that lead to maladaptive anger coping, counselors should give consideration to the possibility that anger expression problems may be related to unique dynamics arising from the interaction between two partners rather than solely or mainly to personality problems inherent to their clients. Individual counseling interventions should include not just those targeted at personality and behavior change but also to those that educate clients about how their partners influence their personality and behavior. When possible, couples counseling rather than individual counseling may be the best mode of therapy for clients who express anger maladaptively in relationships. When working with couples, clinicians should be mindful of the impact of having one or both partners deal with anger in an avoidant manner. Because having an avoidant partner may influence how one deals with anger, clinicians should take into account the potential impact of one partner's avoidance on the other's anger coping style.

## References

- Averill, J. (1983). Studies on anger and aggression: Implications for theories of emotion. *American Psychologist*, 38, 1145-1160.
- Ballard, R. (1992). Short forms of the Marlowe-Crowne social desirability scale. *Psychological Reports*, 71, 1155-1160.
- Bowlby, J. (1973). *Attachment and loss: Separation, anxiety and anger*. London: Pimlico.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46-76). New York: Guilford Press.
- Buss, D. M. (1989). Conflict between the sexes: Strategic interference and the evocation of anger and upset. *Journal of Personality and Social Psychology*, 56, 735-747.
- Calamari, E., & Pini, M. (2003). Dissociative experiences and anger proneness in late adolescent females with different attachment styles. *Adolescence*, 38, 287-303.
- Campbell, A., & Muncer, S. (2008). Intent to harm or injure? Gender and the expression of anger. *Aggressive Behavior*, 34, 282-293.
- Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, 88, 510-531.
- Crowne, D. P., & Marlowe, D. (1960) A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24, 349-354.
- Creasey, G. (2002). Associations between working models of attachment and conflict



- management behavior in romantic couples. *Journal of Counseling Psychology*, 49, 365-375.
- Davis, D., Shaver, P.R., & Vernon, M.L. (2003). Physical, emotional, and behavioral reactions to breaking up: The roles of gender, age, emotional involvement, and attachment style. *Personality and Social Psychology Bulletin*, 29, 871-884.
- Deffenbacher, J. L., Oetting, E. R., Thwaites, G. A., Lynch, R. S., Baker, D. A., Stark, R. S. et al. (1996). State-trait anger theory and the utility of the trait anger scale. *Journal of Counseling Psychology*, 43, 131–148.
- Diamond, L. M., & Hicks, A. M. (2005). Attachment style, current relationship security, and negative emotions: The mediating role of physiological regulation. *Journal of Social and Personal Relationships*, 22, 499-518.
- DiGiuseppe, R., & Tafrate, R. C. (2007). *Understanding anger disorders*. New York: Oxford University Press.
- Dutton, D. G., Saunders, K., Starzomski, A., & Bartholomew, K. (1994). Intimacy-anger and insecure attachment as precursors of abuse in intimate relationships. *Journal of Applied Social Psychology*, 24, 1367-1386.
- Feeney, J.A. (1999). Adult attachment, emotional control and marital satisfaction. *Personal Relationships*, 6, 169–185.
- Feeney, J. A. (2003). The systemic nature of couple relationships: An attachment perspective. In P. Erdman & T. Caffery (Eds.), *Attachment and family systems: Conceptual, empirical, and therapeutic relatedness* (pp. 139-163). New York: Brunner-Routledge.
- Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted

- thoughts. *Journal of Personality and Social Psychology*, 73, 1080–1091.
- Gaines, S. O., Jr., Reis, H. T., Summers, S., Rusbult, C. E., Cox, C. L., Wexler, M. D., et al. (1997). Impact of attachment style on reactions to accommodative dilemmas in close relationships. *Personal Relationships*, 4, 93-113.
- Gaines, S. O., Jr., Work, C., Johnson, H., Page Youn, M. S., & Lai, K. (2000). Impact of attachment style and self-monitoring on individuals' responses to accommodative dilemmas across relationship types. *Journal of Social & Personal Relationships*, 17, 767-789.
- Kenny, D.A., Kashy, D.A., & Cook, W.L. (2006). *Dyadic data analysis*. New York: Guilford Press.
- Kobak, R. R., Cole, H. E., Ferenz-Gilles, R., Fleming, W. S., & Gamble, W. (1993). Attachment and emotion regulation during mother-teen problem solving: A control theory analysis. *Child Development*, 64, 231-245.
- Kopper, B. A., & Epperson, D. L. (1996). The experience and expression of anger: Relationships with gender, gender role socialization, depression, and mental health functioning. *Journal of Counseling Psychology*, 43, 158–165.
- Kubiak, T., Wiedig-Allison, M., Zgoriecki, S., Weber, H. (2011). Habitual goals and strategies in anger regulation: Psychometric evaluation of the Anger-Related Reactions and Goals Inventory (ARGI). *Journal of Individual Differences*, 32, 1-13.
- LaFontaine, M.F., & Lussier, Y. (2005). Does anger towards the partner mediate or moderate the link between romantic attachment and intimate violence? *Journal of Family Violence*, 20, 349-361.

Linden, W., Hogan, B. E., Rutledge, T., Chawla, A., Lenz, J. W., & Leung, D. (2003).

There is more to anger coping than 'in' or 'out'. *Emotion*, 3, 12-29.

Loo, R., & Loewen, P. (2004). Confirmatory factor analyses of scores from full and short versions of the Marlowe-Crowne social desirability scale. *Journal of Applied Social Psychology*, 34, 2343-2352.

Maas, C., & Hox, J. (2005). Sufficient sample sizes for multilevel modeling.

*Methodology: European Journal of Research Methods for the Behavioral and Social Sciences*, 1, 86-92.

Mikulincer, M. (1998). Adult attachment style and individual differences in functional versus dysfunctional experiences of anger. *Journal of Personality and Social Psychology*, 74, 513-524.

Mikulincer, M., & Shaver, P.R., (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guildford Press.

Novaco, R.W. (2007). Anger dysregulation. In T. Cavell & K. Malcom (Eds.), *Anger, aggression, and interventions for interpersonal violence* (pp. 3- 54). Mahwah, NJ: Lawrence Erlbaum.

Paley, B., Cox, M. J., Burchinal, M. R., & Payne, C. C. (1999). Attachment and marital functioning: Comparison of spouses with continuous-secure, earned-secure, dismissing, and preoccupied attachment stances. *Journal of Family Psychology*, 13, 580-597.

Picardi, A., Caroppo, E., Toni, A., Bitetti, D., & Di Maria, G. (2005). Stability of

- attachment-related anxiety and avoidance and their relationships with the five-factor model and the psychobiological model of personality. *Psychology and Psychotherapy: Theory, Research and Practice*, 78, 327-345.
- Pistole, M. C., & Arricale, F. (2003). Understanding attachment: Beliefs about conflict. *Journal of Counseling & Development*, 81, 318-328.
- Powers, S. I., Pietromonaco, P. R., Gunlicks, M., & Sayer, A. (2006). Dating couples' attachment styles and patterns of cortisol reactivity and recovery in response to a relationship conflict. *Journal of Personality and Social Psychology*, 90, 613-628.
- Rholes, W. S., Simpson, J. A., & Oriña, M. M. (1999). Attachment and anger in an anxiety-provoking situation. *Journal of Personality and Social Psychology*, 76, 940-957.
- Robins, S., & Novaco, R. W. (2000). Anger control as a health promotion mechanism. In D. I. Mostofsky & D. H. Barlow (Eds.), *The management of stress and anxiety in medical disorders* (pp. 361-377). Needham Heights, MA: Allyn & Bacon.
- Rusbult, C. E., & Van Lange, P. A. M. (2003). Interdependence, interaction, and relationships. *Annual Review of Psychology*, 54, 351-375.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. E., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary empirical evidence. *Journal of Personality and Social Psychology*, 60, 53-78.
- Scharfe, E., & Bartholomew, K. (1995). Accommodation and attachment representations in young couples. *Journal of Social and Personal Relationships*, 12, 389-401.
- Shaver, P.R., & Mikulincer, M. (2007). Attachment theory and research: Core concepts, basic principles, conceptual bridges. In A.W. Kruglanski & E.T. Higgins (Eds.),

- Social psychology: Handbook of basic principles* (pp. 650-677). New York, NY: Guilford Press.
- Shi, L. (2003). The association between adult attachment styles and conflict resolution in romantic relationships. *The American Journal of Family Therapy*, 31, 143-157.
- Siegel, J. M. (1986). The multidimensional anger inventory. *Journal of Personality and Social Psychology*, 51, 191-200.
- Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 71, 899-914.
- Spielberger, C.D., Sydeman, S.J., Owen, A.E., & March, B.J. (1999). Measuring anxiety and anger with the state-trait anxiety inventory (STAI) and the state-trait anger expression inventory (STAXI). In M.E. Maruish (Ed.), *The use of psychological testing for treatment planning and outcome assessment* (pp. 993-1022). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Tangney, J. P., Barlow, D.H., Wagner, P. E., Marschall, D. E., Borenstein, J. K., Sanftner, J. Gramzow, R. (1996). Assessing individual differences in constructive versus destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology*, 70, 780-796.
- Tangney, J. P., Wagner, P. E., Barlow, D. H., Marschall, D. E., & Gramzow, R. (1996). The relation of shame and guilt to constructive vs. destructive responses to anger across the lifespan. *Journal of Personality and Social Psychology*, 70, 797-809.
- Tran, S., & Simpson, J. A. (2009). Pro-relationship maintenance behaviors: The joint

- roles of attachment and commitment. *Journal of Personality and Social Psychology*, 97, 685-698.
- Troisi, A., & D'Argenio, A. (2004). The relationship between anger and depression in a clinical sample of young men: The role of insecure attachment. *Journal of Affective Disorders*, 79, 269-272.
- Van Coillie, H., & Van Mechelen, I. (2006). A taxonomy of anger-related behaviors in young adults. *Motivation and Emotion*, 30, 57-74.
- Van Coillie, H., Van Mechelen, I., & Ceulemans, E. (2006). Multidimensional individual differences in anger-related behaviors. *Personality and Individual Differences*, 41, 27-38.
- Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The Experiences in Close Relationship Scale (ECR)-Short Form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, 88, 187-204.
- Zimmermann, P., Maier, M. A., Winter, M., & Grossmann, K. E. (2001). Attachment and adolescents' emotion regulation during a joint problem-solving task with a friend. *International Journal of Behavioral Development*, 25, 331-343.