

ABSTRACT

Title of Document: COMMUNICATION BEHAVIORS,
PERCEPTION OF CRITICISM, CHANGES IN
EMOTIONAL STATE, AND RELATIONSHIP
SATISFACTION IN AFRICAN AMERICAN
AND CAUCASIAN HETEROSEXUAL
COUPLES

**Serena Christine Galloway,
Masters of Science, 2006**

Directed By: **Instructor Dr. Carol Werlinich,
Department of Family Studies**

The purpose of this study was to examine the relationships among partners' communication behaviors, perception of criticism, emotional state, and relationship satisfaction among African American and Caucasian couples. Partners' perception of criticism was examined as a mediator of the relationship between communication behaviors and emotional state, as well as relationship satisfaction. The influence of partners' perception of criticism was expected to vary by culture/race. Secondary analyses were conducted for 29 Caucasian and 20 African American heterosexual couples presenting for therapy at a university-based clinic as part of the ongoing Couples Abuse Prevention Program. Couples completed self-report measures of perceived criticism and dyadic adjustment, as well as completing a 10-minute communication sample and reporting their moods before and after the discussion. Results supported

perception of criticism as a mediator, and the association between negative communication behavior and partners' perception of criticism was stronger for Caucasian husbands than for African American husbands.

COMMUNICATION BEHAVIORS, PERCEPTION OF CRITICISM, CHANGES
IN EMOTIONAL STATE, AND RELATIONSHIP SATISFACTION IN AFRICAN
AMERICAN AND CAUCASIAN HETEROSEXUAL COUPLES

By

Serena Christine Galloway

Thesis submitted to the Faculty of the Graduate School of the
University of Maryland, College Park, in partial fulfillment
Of the requirements for the degree of
Master of Science
2006

Advisory Committee:
Instructor Dr. Carol Werlinich, Chair
Professor Dr. Norman B. Epstein
Assistant Professor Dr. Jaslean LaTaillade

© Copyright by
Serena Christine Galloway
2006

Dedication

I want to dedicate this to my mother, Miriam Brioso. Without your constant support, love, and sacrifice I would not be where I am today - the first person in my family to graduate from college and complete my Masters degree. You always believed in me and taught me to do my very best in every aspect of my life. You are my best friend, and it is only from you that I pull my strength, courage, and motivation to pursue my dreams. I am proud to have you as my mom, and I will always and forever love you.

I also want to dedicate this to my younger brother, Steven C. Galloway. We have been through so much together, and I have learned so much from you. Challenges that you and I have shared inspired me to pursue this field and help others. I thank you for always making life fun and interesting. My relationship with you has made me a stronger person, and I will always love you for that.

Acknowledgements

First and foremost, I thank God because without Him, nothing would have been accomplished.

I am extremely grateful to many people for their support, commitment, and contribution throughout this process:

I want to express my appreciation to Dr. Carol Werlinich, my chair advisor. Thank you for encouraging me to write the thesis from the beginning and for your guidance and support throughout the last two years. I am also grateful for your patience and your willingness to work with me throughout the summer so I could graduate. It has been a pleasure working with you and learning so much about life and helping others.

Thank you to Dr. Norman Epstein for sharing your time and energy in this project, and for your thought-provoking questions during our meetings. Your expertise has been instrumental in completing this thesis and I will always appreciate you sharing your vast knowledge of CBT and couples research, of which I will remain in awe.

Thank you to Dr. Jaslean LaTailade for your support and contribution throughout this project. I have learned much from you about African American and interracial couples and I thank you for your assistance in presenting my work at the 2006 APA Convention.

Thank you to my fellow MFT colleagues: Alexis Johnson, Rachel Alexander, Rebecca Frey, Sarah Bong, Elizabeth Davenport Pollock, and Mark Treimel. I have appreciated how close we have become and our support for one another. Our time together will always be precious to me.

Thank you to my family and friends for your encouragement and patience. Your support made this process bearable. Thank you to my parents: Will Galloway and Rizz Marie Alejandrino, and Miriam Brioso and Emilio Brioso for it was because of your relationships that led to my fascination in this topic.

Last, but certainly not least, thank you to Vijay Bakhru for your everlasting belief in me and my abilities and for your endless encouragement and inspiration, even with my frustration. Your love and support keeps me going.

Table of Contents

Dedication	ii
Acknowledgements	iii
Table of Contents	iv
List of Tables	vi
List of Figures	vii
CHAPTER I: INTRODUCTION.....	1
Statement of the Problem.....	1
Purpose of Study	7
Literature Review.....	9
<i>Communication Behaviors</i>	9
<i>Perception of Criticism</i>	12
<i>Changes in Emotional State</i>	14
<i>Relationship Satisfaction</i>	16
<i>Culture/Race</i>	17
Hypotheses.....	21
<i>Communication Behaviors and Changes in Emotional State</i>	21
<i>Communication Behaviors and Overall Relationship Satisfaction</i>	22
<i>Perception of Criticism as a Mediator between Communication Behaviors and Relationship Quality</i>	22
<i>Culture/Race as a Moderator of the Relationship between Communication Behaviors and Perception of Criticism</i>	23
CHAPTER II: METHODOLOGY	24
Sample.....	24
Procedures.....	27
Measures	29
<i>Independent Variables</i>	29
<i>Mediating Variable</i>	32
<i>Dependent Variables</i>	32
CHAPTER III: RESULTS.....	38
Analyses.....	38
<i>Communication Behaviors and Changes in Emotional States</i>	40
<i>Communication Behaviors and Overall Relationship Satisfaction</i>	42
<i>Perception of Criticism as a Mediator between Communication Behaviors and Relationship Quality</i>	44
<i>Culture/Race as a Moderator of the Relationship between Communication Behaviors and Perception of Criticism</i>	50
CHAPTER IV: DISCUSSION	55
Communication Behaviors and Changes in Emotional State.....	57
Communication Behaviors and Overall Relationship Satisfaction.....	58
Perception of Criticism as a Mediator between Communication Behaviors and Relationship Quality	59
<i>Perception of Criticism as a Mediator between Communication Behaviors and Changes in Emotional State</i>	59

<i>Perception of Criticism as a Mediator between Communication Behaviors and Overall Relationship Satisfaction</i>	60
Culture/Race as a Moderator of the Relationship between Communication Behaviors and Perception of Criticism	61
Limitations of the Study.....	64
Clinical Implications	66
Appendices.....	69
Appendix A: Client Information and Instructions Sheet	70
Appendix B: Marital Interaction Coding System – Global (MICS-G).....	72
Appendix C: Hooley and Teasdale (H&T) Scale	73
Appendix D: Relationship Issues Survey (RIS).....	74
Appendix E: Positive Affect and Negative Affect Scale (PANAS)	75
Appendix F: Dyadic Adjustment Scale (DAS).....	76
References.....	77

List of Tables

1. Demographic Characteristics of the Sample.....	26-27
2. Summary of Variables, Conceptual and Operational Definitions, and Tools of Measurement	36-37
3. Means and Standard Deviations of Variables for African Americans and Caucasians.....	39
4. Correlations of Changes in Emotional State with Positive and Negative Communication	42
5. Correlations of DAS with Positive and Negative Communication	44
6. Comparison of Pearson and Partial Correlations of Spouses' Communication Behaviors and Changes in Emotional States for Mediating Perception of Criticism.....	48
7. Comparison of Pearson and Partial Correlations of Spouses' Negative Communication Behaviors and DAS, Mediated by Perception of Criticism.....	50
8. Means of Husbands' Perceptions of Criticism as a Result of the Interaction between Culture/Race and their Wives' Negative Communication Behavior.....	53
9. Means of Wives' Perceptions of Criticism as a Result of the Interaction between Culture/Race and their Husbands' Negative Communication Behavior.....	54

List of Figures

1. The Effects of Culture/Race on the Communication Behaviors of African American and Caucasian heterosexual couples on their Changes in Emotional state and Relationship Satisfaction mediated by Perception of Conflict.....9

CHAPTER I: INTRODUCTION

Statement of the Problem

Communication is essential in the establishment and maintenance of healthy relationships. In intimate couple relationships, effective and open communication influences the quality of relationships. In fact, communication has emerged as a common predictor of marital quality (Rogge & Bradbury, 1999). In some literature, there is an assumption that the connection between communication and relationship satisfaction is simple and positive (Burlison & Denton, 1997); that is, the absence of conflict leads to a happy marriage. Gottman's (1979) research on concurrent versus longitudinal correlates of communication does not support this. In fact, he found that couples who do not communicate effectively when in conflict are more likely to become distressed over time. Interactions that involve expressing and listening to each partner's thoughts and emotions as well as seeking possible solutions to specific problems are called communication behaviors (Epstein & Baucom, 2002). Communication behaviors, positive or negative, can have a negative or a positive impact on relationship quality. The connection between communication behaviors and relationship quality was investigated in the present study and expanded to include the comparison of African American and Caucasian couples. How communication behaviors affect the changes in emotional state and overall relationship satisfaction when mediated by the partner's perception of criticism was explored.

The two aspects of relationship quality influenced by communication behaviors in the current study are the partner's changes in emotional state and the partner's overall relationship satisfaction. Flora and Segrin (2000) suggest that global relational well-being

is determined in part by spouses' rewarding or punishing behaviors and the affective exchanges. It is argued that destructive behaviors and negative emotion erode marital well-being (Flora & Segrin, 2000; Gottman, 1994a). The affect, or emotional state, in interaction has been found to differentiate between distressed and nondistressed couples (Flora & Segrin, 2000; Gottman, Markman, & Notarius, 1977). However, there is a lack of research regarding the level of emotional state responses that take place during the process of couple's interactions. In addition, there is little information regarding predisposing factors that increase the probability that negative emotional states will occur during couple interactions. The relationship between such resulting emotional states and the experience of positive and negative communication between partners has been neglected. As a result, this current study addressed how couples' communication behaviors affect the partner's emotional state as a consequence of discussing a conflictual issue.

The second main focus of the current study was the relationship between communication behaviors and relationship satisfaction. There is research (Gottman, 1994a, 1994b) on how an interaction with a partner can influence how he or she feels about the relationship. For example, Gottman believed that the occurrence of conflictual behavior in all types of situations involving partner interaction is a powerful discriminator between happily and unhappily married couples (Gottman, 1994a). As a result of his studies of types of interactions predicting the longitudinal course of relationships, Gottman and his colleagues found that what differentiated between distressed and nondistressed couples was the use of the 5:1 ratio of positive to negative interactional processes (Gottman, 1994a); i.e., with nondistressed couples having at least

five positive interactions to every one negative interaction and distressed couples having a lower ratio. With rising rates of divorce and separation in the United States, this area of study is still very important. This current study will add to the literature of marital research by observing the effect of communication behaviors on overall relationship satisfaction.

What was explored as a determining factor of the relationship between communication and the two aspects of relationship quality, changes in emotional state and overall relationship satisfaction, is the partner's perception of criticism. Kenny and Acitelli (1994) suggest that the study of interpersonal perception in relationships is one rich area for exploration. They propose that the construction of shared understandings of the couples' experiences or conflicting views impact the way they perceive adjustment in their relationship. Kenny and Acitelli (1994) investigated the relationship between partners' self-perceptions, or similarity, and how similarity may lead partners to become more similar in characteristics and perception over time. In fact, several studies have found that spouses who are similar are more satisfied with their relationships than spouses who are dissimilar (Allen & Thompson, 1984; Ferreira & Winter, 1974; Kenny & Acitelli, 1994). Partners who agree on reports of behavioral interactions in their marriages are happier than are partners who do not (Allen & Thompson, 1984; Kenny & Acitelli, 1994). Therefore, past research has confirmed that similarity, perceived similarity, and understanding have important consequences in close relationships. This current study examined partner's perceptions.

Recent literature has examined criticism, defined as hostile statements expressing dislike or disapproval (Weiss & Tolman, 1990), or as attacking someone's personality or

character rather than specific behavior (Gottman, 1994b). Gottman's (1994b) work with couples communication describes "The Four Horsemen of the Apocalypse": criticism, contempt, defensiveness, and withdrawal (also referred to as stonewalling) as ways of sabotaging communication in the relationship. Gottman studied acts of criticism whereas this study focused on the recipients' subjective perceptions of partners' criticism, specifically looking at the criticism one perceives from their partner during the course of discussing a topic on which the couple disagrees, and how the standards vary by culture/race.

For example, if the couple entered the conversation in a positive mood, whether or not negative or positive communication behaviors are present, and then one of them perceived criticism from their partner, this study observes how their perception of criticism can be a mediator between the communication behaviors and changes in emotional state and overall relationship satisfaction.

This study added to the observation of communication behaviors on partners' changes in emotional state and overall relationship satisfaction, when mediated by perception of criticism by using culture/race as a moderator effect. Culture/race has always been a major distinguishing characteristic in our society. Of all of the minorities in the United States, African Americans are the second largest group in the United States (U.S. Census Bureau, 2000). When observing the variance in marital outcomes in this country, ethnicity or culture/race accounts for a relatively large amount (Karney, Kreitz, & Sweeney, 2004). For example, analyses of census data collected in 1995 indicate that for African American women, expected rates of marital dissolution are 50% higher than for Caucasian women expected to end in separation or divorce within 10 years (Bramlett

& Mosher, 2001). Consequently, understanding how relationship processes may differ among couples that differ in culture/race may be an important step towards a more complete account of how partners maintain satisfaction in their relationships.

Even though marital research on communication behaviors and relationship quality has been of such importance, samples examined in most marital research have not been very diverse (Karney, et. al, 2004). Caucasians have been the primary research participants and many of the findings are then generalized as if they apply to society as a whole (Houston, 2002; Lannamann, 1991). Karney and Bradbury (1995), after reviewing 115 longitudinal studies of marital outcomes, calculated that only 17% of the samples examined by marital researchers have been nationally representative, whereas 75% of the samples have been composed primarily of middle-class non-Hispanic Caucasians.

In addition, cognitive or psychological processes in marriage have usually been studied within smaller and less diverse samples (Karney et. al., 2004). The most invasive marital research (i.e., studies using interviews, observational techniques, or physiological measures) has been conducted almost exclusively on samples of Caucasian middle-class couples (Karney, et. al., 2004). Houston (2002) reviewed studies of African Americans in interpersonal communication research in mainstream literature during the 25-year period from 1975 to 2000. She found only 34 articles focusing on African Americans published in this area compared to a total of 288 articles total were published in a single journal, *Human Communication Research*, between the years of 1974 to 1999. In the 34 articles on African Americans, data was obtained from self report measures when studying couples' communication.

Literature on the relationship of culture/race and communication suggests that African Americans and Caucasians comprise different speech communities (Collier, 1997; Hughes & Baldwin, 2002), with different types of speech (Hughes & Baldwin, 2002; Kochman, 1981), rules for interaction (Collier, 1988, 1996; Hughes & Baldwin, 2002), core cultural views (Hecht, Larkey, & Johnson, 1992; Hecht, Ribeau, & Alberts, 1989), and different world views (Hecht, Collier, & Ribeau, 1993). Shade (1982) proposes that African Americans and Caucasians process and interpret messages differently. African American and Caucasians have been described as having different cultures, sharing different meanings of words or actions and having different rules for effective or appropriate behavior (Collier, 1997; Collier & Thomas, 1988).

For example, research suggests differences in nonverbal communication when comparing African American and Caucasians. Members of African American dyads tend to use lower levels of eye contact than Caucasians (Smith, 1983). Asante and Davis (1985) found that the perpendicular head nodding of African Americans is often simply used as a conversation starter or an indication of turn-taking; however, nods done by Caucasians are more likely used to convey a direct message of understanding or agreement. To demonstrate listening, in Erickson's (1979) study, African Americans tended to use verbal behavior as a listening device, and that the verbal response was used for the function of listening more than twice as frequently as the nonverbal nod. For many Caucasians, Erickson (1979) found that direct eye contact is utilized more to demonstrate listening.

With the lack of representative research on African American couples and the varying differences in communication behaviors between African American and

Caucasian couples, this present study examined communication behaviors and the changes in emotional state and overall relationship satisfaction when mediated by the partner's perception of criticism in African American and Caucasian couples.

Purpose of Study

A central purpose of this study was to add to the research on African American couples. The specific aim was to investigate a) the direct effect of communication behaviors, when moderated by culture/race, on an individual's changes in emotional state; b) the direct effect of communication behaviors, when moderated by culture/race, on overall relationship satisfaction; c) the main effect of the communication behaviors of African American and Caucasian couples, when mediated by perception of criticism, on changes in emotional state; and d) the main effect of the communication behaviors of African American and Caucasian couples, when mediated by perception of criticism, on overall relationship satisfaction.

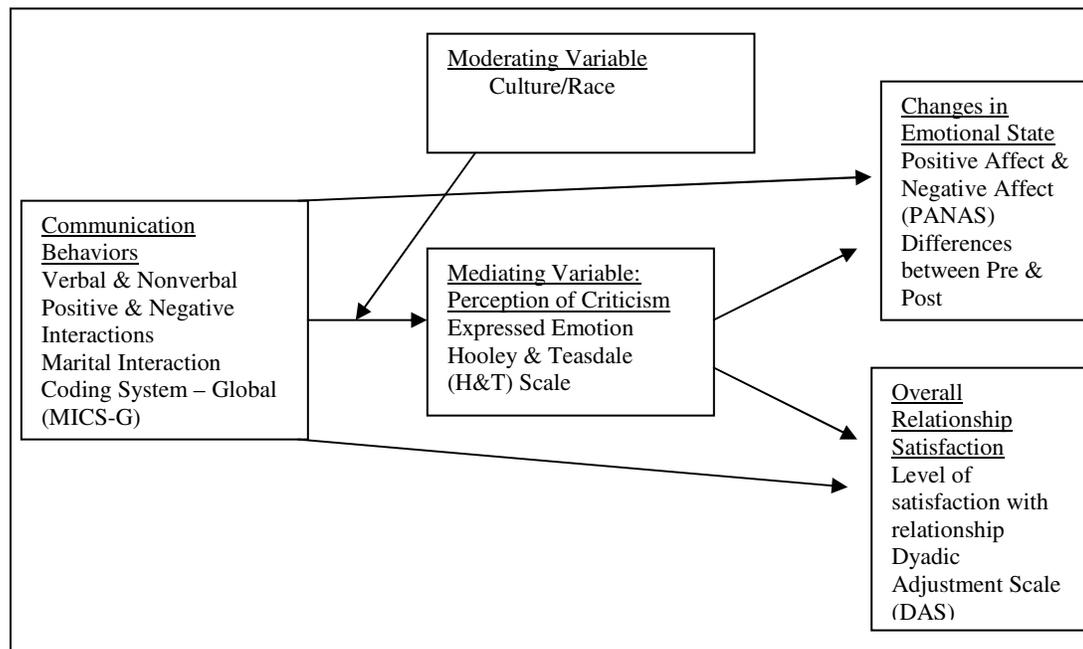
The theoretical framework used was cognitive behavioral theory. In general, this theory focuses on the relationship between perceptions, emotions, and behaviors. According to Epstein and Baucom (1989), in a cognitive behavioral model of close relationships, marital distress, which includes a cognitive component of dissatisfaction with the relationship, is related to how spouses act toward each other (behavioral interaction) and how they interpret each other's actions (cognitions and perceptions). Specifically, in this study cognitive behavioral theory was used to focus on how communication behaviors, when mediated by perception of criticism, affect a partner's changes in emotional state and overall relationship satisfaction.

The concepts that were used are: communication behaviors, perception of criticism, changes in emotional state, overall relationship satisfaction, and the moderating variable of culture/race (refer to Figure 1). The independent variable was the partners' communication behaviors. The mediating variable was the perception of criticism. The dependent variables were the current changes in emotional state and the overall relationship satisfaction. Relationship satisfaction was operationalized as marital adjustment reported by each partner.

For this study, heterosexual Caucasian couples and African American couples were compared. Culture/race was obtained from demographic data supplied by the participants on the Client Information and Instructions Sheet (Appendix A). The data for this study was a subset of the data collected at the Family Service Center (FSC) as part of the ongoing Couples Abuse Prevention Program (CAPP) study. The FSC is an in-house clinic at the University of Maryland, College Park, serving individuals, couples, and families from the Washington, DC Metropolitan area. The CAPP study provides couple interventions for psychological and mild to moderate physical abuse. The subset was derived utilizing African American and Caucasian heterosexual couples who met the criteria for the CAPP study. This sample will be further explained in the methodology chapter. Lastly, this is a quantitative study, observing the individual partner as the unit of analysis.

Figure 1

The Effects of Culture/Race on the Communication Behaviors of African American and Caucasian Heterosexual Couples on Their Changes in Emotional State and Overall Relationship Satisfaction Mediated by Partners' Perception of Criticism



Literature Review

The review of literature includes background research and explanation of the variables: communication behaviors, perception of criticism, changes in emotional state, relationship satisfaction, and culture/race. At the conclusion of the literature review, hypotheses of this study are presented.

Communication Behaviors

Interactions that involve expressing and listening to each partner's thoughts and emotions as well as seeking possible solutions to specific problems are called communication behaviors (Epstein & Baucom, 2002). Whether communication

behaviors are positive or negative, verbal or nonverbal, they affect couples' relationships. In fact, problems in communication are the most frequent complaint of couples entering therapy and are the relationship difficulty most frequently cited by clinical couples (Burlison & Denton, 1997). A possible explanation could be that romantic partners look to their interactions with each other as evidence that their partner understands and accepts them (Weger, 2005).

Studies have demonstrated that happier couples display a higher rate of positive communication than do distressed couples when the partners are having a conversation with one another (Birchler, Weiss, & Vincent, 1975; Gottman & Krokoff, 1989; Schaap, 1984). Although findings are not constant across all studies, research suggests that happier couples tend to use more constructive ways of handling conflict (Oggins, Veroff, & Leber, 1993); use more assent, approval, and caring (Schaap, 1984); are more likely to suggest compromises (Cousins & Vincent, 1983); display humor, smiling, and laughing (Margolin & Wampold, 1981; Schaap, 1984); along with showing positive physical touch (Margolin & Wampold, 1981). Some have found that negative communication behaviors have an even greater impact on partners' satisfaction with their relationships than do positive behaviors (Weiss & Heyman, 1997). This study explained how positive and negative communication behaviors influence relationship satisfaction.

In investigating how communication behaviors may also have an impact on the emotional states of partners, it is important to distinguish between verbal and nonverbal forms of communication. When studying interactions between partners, communication skills have been reflected primarily in the content of partners' verbal content, whereas affect has been expressed through nonverbal cues, such as facial expressions,

paralinguistic cues, and posture (Johnson, Cohan, Davila, Lawrence, Rogge, Karney, Sullivan, & Bradbury, 2005). Gottman (1979) did a cross-sectional study investigating differences in content and affect. He determined that what could differentiate between distressed and nondistressed couples in the verbal content of their interaction is when that content was escorted with a negative, but not neutral, affect; the presence of negativity makes the difference. The study found that on average, distressed couples were 10 times more likely to express disagreement with negative affect. Thus, there is some evidence that observing partners' communication behaviors, both verbal and nonverbal, are important in determining how the partner's emotional state is affected when interacting with his or her partner.

Gottman and Krokoff (1989) conducted two longitudinal studies of marital interaction using observational coding of couples attempting to resolve a high conflict issue. The coding systems for this were the Marital Interaction Coding System (MICS; Weiss & Summers, 1983), the Couples Interaction Scoring System (CISS), and the Specific Affect Coding System (SPAFF; Gottman & Krokoff, 1989), which separates negative affect into anger, contempt, fear, sadness, and whining categories. The study found three interaction patterns, verbal and nonverbal, as dysfunctional in terms of long term deterioration in marital satisfaction: defensiveness (i.e., whining), stubbornness, and withdrawal (Gottman & Krokoff, 1989). One result of the study was that husbands' negative engagement was negatively associated with concurrent satisfaction, but positively associated with change in satisfaction over the following three years. This study is relevant in that it further supports that interactions influence relationship

satisfaction. Therefore, one of the aims of the present study was to investigate the relationship between communication behavior and relationship satisfaction.

Perception of Criticism

Some research has investigated the relationship between differing aspects of communication behavior and relationship satisfaction (Christensen & Heavey, 1990; Gottman, 1994a; Gottman 1994b). Christensen and Heavey contend that a common negative process that causes conflict in relationships to escalate is when one partner pressures the other through emotional demands, criticism, and complaints, while the other partner retreats through withdrawal, defensiveness, and passive inaction; this was called the demand/withdraw pattern of marital conflict (1990). Gottman (1994a) concluded that the presence of negativity is more predictive of future relational problems than is the absence of "positivity," and that contempt and criticism expressed toward the partner have long-term, negative consequences for the relationship. As a result, Gottman (1994b) identified four negative behavioral processes harmful to a relationship, which he called "The Four Horsemen of the Apocalypse": criticism, contempt, defensiveness, and withdrawal (also referred to as stonewalling). Gottman's Cascade Model describes a sequence beginning with criticism and ending with stonewalling that parallels a demand-withdraw pattern and is predictive of marital deterioration (Ridley, Wilhelm, & Surra, 2001). Partners do these actions in response to a conflict that they perceive exists between what the two of them want. Thus, criticism involves a negative, destructive response to specific behaviors or attributes of the individual. The present study used the definition of criticism proposed by Gottman: hostile statements expressing dislike or disapproval that attack someone's person or character rather than a specific behavior

(1994b). The partners' perception of criticism was the mediating variable between communication behaviors and the dependent variables of emotional state and relationship satisfaction. Perception of criticism was operationalized as the individual's own assessment of criticism from their partner (Hooley & Teasdale, 1989).

Criticism is the most significant factor of the expressed emotion index (Hooley & Teasdale, 1989). Previous literature regarding expressed emotion (EE) reveals that individuals with a variety of psychopathology are likely to relapse if they reside in a family atmosphere that includes a high level of hostility/contempt and criticism (Butzlaff & Hooley, 1998). In this context, expressed emotion indicated the extent to which relatives of psychiatric patients communicated critical, hostile, or emotionally over-involved attitudes toward their distressed family member (Hooley & Teasdale, 1989). Hooley and Hahlweg (1986) discovered a negative association between high levels of perceived criticism and marital satisfaction. In addition, EE and marital satisfaction have been connected to the quality of communication between partners. Baucom and Sher (1987) stated that distinctions in the perceptions of the intent and the effect of conversations between spouses were associated with marital dissatisfaction and high EE levels.

Hooley and Teasdale's (1989) study added to their previous work, linking EE in spouses and relapse in depressed patients by refocusing their attention on marital distress and perceived criticism. Using the patient's own assessments of the levels of criticism to which they are exposed, their study found that patients living with high EE spouses were significantly more likely to relapse than were patients who lived with low-EE spouses. Hooley and Teasdale (1989) further noted that the strongest predictor of results in their

sample was the patients' perception of the criticalness of the spouse. In this case, the patients who perceived lower criticism from their spouse had higher marital satisfaction and as a result were less likely to suffer a clinically significant relapse of symptoms.

In summary, an individual's perception of criticism occurs when a partner is perceived to behave in a negative way; i.e., critical of the partner. An individual's own assessment of the criticism to which they are exposed (perceived criticism) is the extent to which the significant other is perceived to express criticism towards them, which has been found in studies to influence the perception of relationship satisfaction. This study looked at how perception of criticism affects relationship satisfaction in a sample of African American and Caucasian heterosexual couples.

Changes in Emotional State

Emotions are central to intimate relationships (Epstein & Baucom, 2002). Lazarus (1991) stated that:

Emotions are complex, patterned, organismic reactions to how we think we are doing in our lifelong efforts to survive and flourish and to achieve what we wish for ourselves. Emotions are like no other psychosociobiological construct in that they express the intimate personal meaning of what is happening in our social lives. (p. 6)

The importance of affect in interaction is its ability to discriminate between distressed and nondistressed couples (Flora & Segrin, 2000; Gottman, Markman, & Notarius, 1977). Gottman (1994a) highlighted the importance of emotion in relationships. In exploring what predicts divorce, he found that it is how partners feel toward each other, the ways in which they express those feelings, and the couple's ability

to emotionally engage in their relationship that predicts the future of their relationship. In fact, Gottman concluded that it is the extent of emotional engagement, rather than the number or nature of conflicts, that defines the happiness and stability of relationships. As a result, Gottman proposed that it is essential to differentiate between feelings of anger and those of criticism and contempt, going on to say that it is actually the expression of criticism and contempt, not anger, that predicts divorce. It has been suggested that critical and contemptuous feelings are destructive because they suggest a global, negative sentiment and attitude toward the partner (Epstein & Baucom, 2002).

How an individual feels may be the result of an interpretation or perception of behaviors or thoughts. As previously discussed, verbal aggression is defined as an act carried out with the intention of, or perceived as having the intention of, hurting another person emotionally (Gavazzi, et. al., 2000; Straus, 1979). The receiver who perceives the act as hostile or attacking the self can experience emotional pain. Criticism is defined in this study as hostile statements expressing dislike or disapproval that attack someone's person or character. This study examined how an individual's perception of criticism when interacting with their partner may affect the emotional state.

“The most direct assessments of affect are found in studies of spouses' immediate affective reactions as they engage in communication tasks” (Flora & Segrin, 2000, p.641). A person's overall affectivity will affect his or her day-to-day mood and therefore the people in that person's environment (Epstein & Baucom, 2002). Watson, Clark, and Tellegen (1988) present scales addressing two dominant dimensions of affect: Positive Affect (PA) and Negative Affect (NA). Positive Affect (PA) mirrors the degree to which a person feels enthusiastic, alert, and active. High PA is a state of high vigor,

attentiveness, and pleasurable engagement, whereas low PA is characterized by misery and weariness (Watson, Clark, & Tellegen, 1988). However, NA is a dimension of subjective distress and unsatisfying engagement that includes a variety of aversive mood states, including anger and contempt, with low NA being a state of peace and tranquility (Watson, Clark & Tellegen, 1988). Negative affect happens in all marriages, and it develops into a problem when it consistently worsens and spouses are inadequately skilled at lessening the intensity of the negativity (Gottman, Coan, Carere, & Swanson, 1998). This study assessed the emotional state of the couple before and after communicating about a conflictual issue, and the pre-post difference was a measure of emotional state.

Relationship Satisfaction

The extent to which the individual in the couple perceives satisfaction or happiness in the relationship was the second dependent variable of this study. At the most basic level, marital satisfaction has been shown to relate more to perceived similarity in the relationship between partners' self perceptions than to actual similarity (Acitelli, Douvan, & Veroff, 1997). Similarity in the relationship between partners could be referred to as their perceived compatibility of personality traits, interests, etc. Behaviors or acts that contradict, or are perceived to contradict, this similarity can impact relationship satisfaction. This study investigated how communication behaviors, mediated by perception of criticism or hostile statements expressing dislike or disapproval to attack someone's person or character (Gottman, 1994b), were related to relationship satisfaction.

Spanier (1979) described marital quality as “a concept...most directly concerned with how the marriage functions during its existence and how the partners feel about and are influenced by such functioning” (p. 289). Couples seen at the Family Service Center who were utilized for this study were not all married couples, and therefore the focus was on relationship satisfaction, rather than “marital” satisfaction even though the measures and past research utilized for the study include marital terms as part of their description. However, partners were referred to in this study as husbands and wives for convenience in labeling.

Culture/Race

A component of this study that differentiates it from previous research on the influence of communication behaviors and relationship satisfaction was a focus on comparing African American heterosexual couples to Caucasian heterosexual couples. This was included in this study because literature exploring communication behaviors, perception of criticism, emotional state, and relationship satisfaction is lacking on African American couples. Caucasians are primarily the population that has been used when studying these variables. This study aimed to add more to the literature on the African American population.

African American and Caucasian Couples

Positive and negative communication behaviors have been studied primarily among Caucasian couples (Johnson, 1971), but it is unclear if positive and negative communication behaviors function similarly for African American couples in predicting changes in emotional state or relationship satisfaction. Some research has investigated gender differences in communication styles and mannerisms along with differences in

verbal communication patterns of African Americans compared to Caucasians (Johnson, K. 1971; Oggins, Leber, & Veroff, 1993; Oggins, Veroff, & Leber, 1993; Weisfeld & Stack, 2002). However, little research has been directed toward differences in nonverbal communication patterns in African Americans (Johnson, K, 1971; Jackson, R., 2004). Some prior research presented evidence that the manner in which conflict is handled or managed is influenced by an individual's cultural background (Kirchmeyer & Cohen, 1992), but that African American and Caucasian couples have similar conflict resolution strategies and outcomes. However, Cohen (1992) argued that many of the fundamental processes involved in marital conflicts and their relationship to marital happiness are not similar for African Americans and Caucasians in America. This inconsistency adds more reason for studying relationship satisfaction of African American and Caucasian couples.

One's racial background influences how one perceives and reacts to others (Triandis, 1989). Davidson (2001) studied the impact of race on styles of dealing with conflict. Davidson states that emotional expression is highly valued among African Americans, and with the support of literature from Kochman (1981), says that for African Americans:

The maximal credibility in an interaction is afforded when one has the ability to express oneself in a harmonious blend of logic and emotion....Under conflict, this cultural value is likely to manifest as loud, forceful speech and animated nonverbal behaviors. The recurring stereotype of Blacks responding to conflict with confrontational behaviors, such as open expressions of negative emotion, suggests one pattern of how Blacks may cope with interpersonal conflict (Davidson, 2001, p. 261).

When studying couples' perception, Acitelli, Douvan, and Veroff (2004) asked two research questions when studying African American and Caucasian couples: "1) Do interpersonal perceptions of married couples change over the first three years of their marriages, and 2) Do these perceptions have different effects on marital well-being over the same time period" (p. 138). They analyzed couples by sex and race, and found that African American wives increased in perceived similarity, and Caucasian husbands increased in understanding their wives.

In regard to literature on emotional states, a key issue in expressed emotion research is that the majority of the studies have been of White, middle-class subjects, despite the number of countries in which the research on EE has been conducted (Jenkins & Karno, 1992). Studies that specifically focused on African American couples and the relationship between couple satisfaction, expressed emotion, and communication behaviors are absent. Wuerker, Hass, and Bellack (1999) studied gender and racial differences between African Americans and Caucasians in parental expressed emotion level and communication patterns between a patient with schizophrenia and the parent, using data from the NIMH Treatment Strategies in Schizophrenia study. As part of their rationale for comparing these two racial groups, the authors noted Kochman's (1981) description of African Americans as being more comfortable with expressing emotion compared to Caucasians, saying that emotionally intense expressions are favored in the African American culture as long as they reflect genuine feelings, while restraining the expression of feelings is considered "cold," or "not for real." Kochman (1981) is known for his work on communication strategies that result in conflict encounters between the African American and Caucasian races in his book, *Black and White Styles in Conflict*.

Results of the Wuerker et. al. (1999) study demonstrated that the relationship between interpersonal control and EE level was stronger in African American families compared to Caucasians. Therefore, in this study it was hypothesized that due to African Americans being more comfortable with emotionally intense emotions than Caucasians, Caucasian individuals will be more sensitive to partners' negative communication and report higher perception of criticism than African American partners.

Consistent literature is lacking about the simultaneous effects of culture/race when exploring communication behaviors, perception of criticism, changes in emotional state, and relationship satisfaction. One study was found exploring race, gender, and communication style stereotypes (Popp, Donovan, Crawford, Marsh, & Peele, 2003). Previous research found that African Americans' style of speech has been perceived as argumentative, emotional, aggressive, critical, sensitive, defiant, hostile, open, responsive, and intelligent (Ogawa, 1971). When observing the overlap of culture/race and gender, Weitz and Gordon (1993) studied images of "American" women and African American women and discovered that the primary three traits used to illustrate "American" women were intelligent, materialistic, and sensitive; whereas African American women were often characterized as loud, talkative, and aggressive. The Popp et. al. (2003) study found evidence that stereotypes about African Americans and Caucasians were "alive and well." A complicated picture was drawn for African American women as a result of this study, noting that by their positioning within both race and gender hierarchies they are uniquely disadvantaged. Furthermore, depending on which category was more salient to an observer, gender or race, African American women's speech may be seen as more or less direct (Popp, et. al., 2003).

Overall, the present study was intended to fill in gaps in the literature on communication behaviors and perception of criticism by exploring the effects of these variables in heterosexual African American and Caucasian couples' on their changes in emotional state and relationship satisfaction.

Hypotheses

This study investigated the moderating effect of culture/race on the relationship between communication behaviors of Caucasian and African American heterosexual couples and changes in their emotional states and overall relationship satisfaction, mediated by their perception of criticism from their partner. The following hypotheses were tested:

Communication Behaviors and Changes in Emotional State

1. One's greater positive communication behaviors will be associated with an increase in their partner's positive affect during the couple's discussion of a conflictual topic.
2. One's greater positive communication behaviors will be associated with a decrease in their partner's negative affect during the couple's discussion of a conflictual topic.
3. One's greater negative communication behaviors will be associated with an increase in their partner's negative affect during the couple's discussion of a conflictual topic.

4. One's greater negative communication behaviors will be associated with a decrease in their partner's positive affect during the couple's discussion of a conflictual topic.

Communication Behaviors and Overall Relationship Satisfaction

5. One's greater positive communication behaviors will be associated with their partner's higher overall relationship satisfaction.
6. One's greater negative communication behaviors will be associated with their partner's lower overall relationship satisfaction.

Perception of Criticism as a Mediator between Communication Behaviors and Relationship Quality

7. One's perception of criticism will mediate the relationship between their partner's communication behaviors and one's changes in emotional state.
 - a. One's perception of criticism will mediate the relationship between their partner's greater positive communication behaviors and an increase in one's positive affect.
 - b. One's perception of criticism will mediate the relationship between their partner's greater positive communication behaviors and a decrease in one's negative affect.
 - c. One's perception of criticism will mediate the relationship between their partner's greater negative communication behaviors and an increase in one's negative affect.

- d. One's perception of criticism will mediate the relationship between their partner's greater negative communication behaviors and a decrease in the one's positive affect.
8. One's perception of criticism will mediate the relationship between their partner's communication behaviors and one's overall relationship satisfaction.
- a. One's perception of criticism will mediate the relationship between their partner's greater positive communication behaviors and one's higher relationship satisfaction.
 - b. One's perception of criticism will mediate the relationship between their partner's greater negative communication behaviors and one's lower relationship satisfaction.

Culture/Race as a Moderator of the Relationship between Communication Behaviors and Perception of Criticism

9. Culture/Race will moderate the relationship between one's negative communication behaviors and their partner's perception of criticism such that the association between one's more negative communication behavior and their partner's higher perception of criticism will be stronger for Caucasian couples than for African American couples.

CHAPTER II: METHODOLOGY

Sample

The data for this study was a subset of the data collected at the Family Service Center (FSC) as part of the ongoing Couples Abuse Prevention Program (CAPP) research study. The FSC is an in-house clinic at the University of Maryland, College Park, serving individuals, couples, and families from the Washington, DC Metropolitan area. The CAPP research from which this current study derived its data, evaluates the effectiveness of treatment programs for couples who have experienced problems with anger control and violence in their relationship. The CAPP treatment focuses on communication and problem solving skills, anger management skills, relationship recovery from prior domestic abuse, and enhancement of relationship strengths and satisfaction. Participants for the CAPP project are self referred; they contacted the FSC for couple therapy. Couples who are part of the CAPP study were invited to be a part of the research after becoming eligible as a result of their responses on standard, initial couple assessments. Agreement to participate in the research is documented by a consent form.

Twenty-nine Caucasian heterosexual couples and 20 African American heterosexual couples were compared. The number of couples selected in this study was the total number in the CAPP study who was African American and Caucasian and completed all of the assessments before beginning treatment since the CAPP study began in November of 2001. Interracial couples, though accepted into the CAPP study if eligible, were not used for this study because they were not sufficient in number. Data gathered from the couples' demographics besides their culture/race background included the highest level of education achieved by each of the partners and their combined

income. Of African American partners who have beyond a high school diploma, 65% ($n = 13$) were male and 90% ($n = 18$) were females, whereas of Caucasian partners, 79.4% ($n = 23$) were males and 89.7% ($n = 26$) were females who had beyond a high school diploma. African Americans' mean of combined income was \$78,381.28 and Caucasians' mean of combined income was \$67,303.70. It was noted if there were children and if so, how many, age of the individuals, whether the couple was married or not, and how long the couple has been together. For the mean of number of children, African American male partners had 1.80 and female partners had 1.35; Caucasian male partners had a mean of 1.17 children and female partners had a mean of .86 children. Of the couples' reported ages, the mean of African American males was 31.80, mean age of African American females was 29.85, mean age of Caucasian males was 33.55, and mean age of Caucasian females were 32.21. Of the African American couples, 30.6% ($n = 6$) were married and of the Caucasian couples, 32.7% ($n = 9$) were married. Lastly, the average length of years together reported by the African American wives was 6.42, and the average length of years together reported by the Caucasian wives was 6.40. This information was used to assess the socioeconomic status comparability of the two racial/ethnic groups of the study and to describe the sample populations. A summary of the sample's demographics is presented in Table 1.

Table 1

Demographic Characteristics of the Sample

<u>Variable</u>	<u>Couple's Race</u>				<u>Sig.</u>
	<u>African American</u>		<u>Caucasian</u>		
	<i>(n = 20)</i>		<i>(n = 29)</i>		
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	
Years together (women's report)	6.42	6.45	6.40	7.74	<i>p = .91</i>
<u>Age</u>					
Males	31.80	5.49	33.55	9.73	<i>p = .18</i>
Females	29.85	6.11	32.21	10.36	<i>p = .24</i>
Combined Income ¹	78,381	57,907	67,304	32,533	<i>p = .22</i>
<u>Number of Children</u>					
Males	1.80	1.24	1.17	1.71	<i>p = .23</i>
Females	1.35	1.27	.86	1.03	<i>p = .36</i>

Note: ¹Combined income of the couple

Table 1 (Continued)

Demographic Characteristics of the Sample

<u>Variable</u>	<u>Couple's Race</u>					<u>χ^2 (1, N=29)</u>
	<u>African American</u>		<u>Caucasian</u>			
	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>		
Married	30.6%	6	32.7%	9		2.002
<u>Education²</u>						
Males	65%	13	79.4%	23		<u>χ^2 (8, N=49)</u> 8.31
Females	90%	18	89.7%	26		<u>χ^2 (6, N=49)</u> 5.79

Note: ²Percent of individuals within race who have more than a high school diploma.

Values for *n* were rounded to whole numbers.

Procedures

Participants first contacted the FSC when they were interested in couple therapy. They completed a phone intake, and two therapists were then randomly assigned to their case based on therapist availability. When the couples came in for their first visit to the FSC, they completed extensive initial standard assessments. From the initial (or Day 1) assessments, therapists determined eligibility for participation in the Couples Abuse Prevention Program (CAPP) study by reviewing each partner's responses on the Client

Information & Instructions Sheet, the Conflict Tactics Scale-Revised (CTS-2; Straus, Hamby, Boney-McCoy, Sugarman, 1996), Multidimensional Emotional Abuse Scale (MDEAS; Murphy & Hoover, 2001), and the Substance Abuse Interview. The inclusion criteria for the CAPP study are: both partners are a minimum of 18 years old, have experienced domestic abuse during the past four months as indicated by the CTS-2 or MDEAS, both members of the couple say that they want to improve their relationship, partners spend time with each other at least once a week in direct interaction, they agree not to be in concurrent couple treatment, and both members of the couple feel safe with each other and agree to be seen together. The exclusion criteria for the CAPP study include abuse taking place during the past four months that resulted in physical injury requiring medical treatment or involving the use of weapons to threaten, coerce, or harm a partner (from their responses on the CTS-2 and MDEAS), and either member of the couple having an untreated alcohol or drug abuse problem, as determined in the Substance Abuse Interview.

Couples who were eligible for the CAPP study were then asked for their consent to be part of the study. Some of the benefits of participation include 90-minute instead of 45 minute sessions, and a reduced fee of \$10 per session (half of the FSC minimal fee) if all 10 double sessions are completed. When couples agreed to join the study, they completed a Day 2 assessment at their next scheduled visit. This included additional assessments; this study utilized the 10-minute communication sample, the Positive Affect and Negative Affect Scales (PANAS; Watson, Clark, & Tellegen, 1998) before and after the communication sample (Pre-PANAS and Post-PANAS), and the Hooley & Teasdale (H&T; Hooley & Teasdale, 1989) Scale. To complete the CAPP study, the couples must

complete 10 couple therapy sessions followed by a post-therapy assessment and a four-month follow-up assessment. However, data from the sessions, the post assessments, and the four-month follow-up assessment were not used for this study.

Measures

This section will explain the instruments utilized for measuring the variables. A summary of variables, conceptual and operational definitions, and tools of measurement had been provided for clarity (see Table 2).

Independent Variables

Positive and Negative Communication Behaviors

Communication behaviors were operationalized by observing and recording the individuals' behaviors of interaction using the Marital Interaction Coding System – Global (MICS-G; Weiss & Tolman, 1990) (Appendix B). At the Day 2 assessment, the couples completed a 10-minute communication behavior sample. During this communication sample, the couple was alone in a room discussing a conflictual issue in their relationship. This interaction of discussing a conflictual issue was seen as a representative sample of how the couple normally interacts and communicates together when in conflict outside the FSC. Items 3 and 4 of the Hooley and Teasdale (H&T; Hooley & Teasdale, 1989) Scale (Appendix C) asks how typical the communication interaction was during the sample. Specifically, item 3 asks, “How similar was your partner’s behavior to the way he or she typically behaves when the two of you discuss an issue at home?” Item 4 asks, “How similar was your behavior to the way you typically behave when the two of you discuss an issue at home?” The scale ranges from 1=Not at

all Similar to 10=Very Similar Indeed (Hooley & Teasdale, 1989). The scores of these two items were used to verify whether the communication sample was typical of couples' behavior as part of the measurement of relationship satisfaction. If the score was one or more for both partners, it was judged as typical. Scores that were less than that would eliminate the couple from the sample. As a result of this analysis, none of the couples were eliminated from the study due to their scores on the H&T scale being less than one. All 98 individuals, both African American and Caucasian, provided an answer of at least one on items 3 and 4 finding the behaviors of the discussion typical to when they were in discussion at home. The topic for the couple's discussion was taken from the Relationship Issues Survey (RIS) (Appendix D), an instrument that is completed at the Day 1 assessment. The RIS scale range responses from 0 to 3. Two to three topics that each partner rated as a moderately conflictual issue, scores from 1 to 2, were presented to the couple at the start of the communication process; they choose from this group and discussed the topic for 10 minutes. The communication behavior samples were videotaped, after which the couple completed the rest of the Day 2 assessment instruments.

When the communication samples were completed by the couples, they were coded using the MICS-G by undergraduate students trained to use the MICS-G. This coding system classified verbal and nonverbal communication styles on six global areas of relationship interaction: conflict, problem solving, validation, invalidation, facilitation, and withdrawal (Weiss & Tolman, 1990). The positive communication styles were the specific content and behavioral affect cues that make up the concepts of problem solving, validation, and facilitation; the negative communication styles are the content and

behavioral affect cues that represent conflict, invalidation, and withdrawal (Weiss & Summers, 1983).

The content cues for the MICS-G that represented conflict were the following: complaining (e.g., expressions of feeling deprived, wronged, or inconvenienced as a result of the partner's actions), criticizing (e.g., expressions of dislike or disapproval of a partner's behavior), negative mind-reading (e.g., statements inferring or assuming a negative attitude or emotion on the part of one's partner), put-downs and insults (e.g., statements intended to hurt, demean, or embarrass one's partner), and negative commands (e.g., angry or hostile demands made toward other partner). The affect cues that represented conflict were the following: hostility (e.g., obscene or threatening gestures; shouting), voice intonation that is sarcastic, whining, angry, and/or bitter.

Examples of these content and behavioral affect cues within the global areas of relationship interaction included the frequency and intensity of the individual interrupting their partner as part of displaying invalidation, the extent to which the individual attempted to verbally compromise as part of displaying problem solving, the duration of eye contact as part of validation, and the frequency of erecting bodily barriers (i.e., covering their face or turning away) as part of displaying withdrawal. Coding of their communication behaviors was used to explore the negative and positive actions that influenced their marital satisfaction. Each of the behavioral and affect codes was rated on a scale from 0-5 (0=No behavior to 5=Very High); next the codes from each of the marital interaction categories were averaged, then inter-rater reliability was determined by comparing averages between coders and working until scores achieved no more than

one point differences between pairs of coders, and finally, the data was entered in the CAPP database.

Coders of the communication samples were trained undergraduate students at the University of Maryland. The trained students transcribed the communication samples and coded the couples' affect and behavioral cues. Inter-rater reliability among coding teams was established.

Mediating Variable

Perception of Criticism

The instrument used to obtain perception of criticism was the Hooley and Teasdale Scale (H&T; Hooley & Teasdale, 1989) (Appendix C). Perception of criticism was the operationalization of expressed emotion. The H&T Scale is a self report measure asking the participant to rate the degree to which each member of the couple was critical during the discussion, using a 10-point Likert Scale, ranging from 1 to 10. Item 1 will be used for this study in assessing expressed emotion asking, "In general, how critical do you think your partner was of you during the discussion you just had?" The scale ranges from 1=Not at all Critical to 10=Very Critical Indeed (Hooley & Teasdale, 1989).

Dependent Variables

Emotional State

The Positive and Negative Affect Scale (PANAS; Watson, Clark, & Tellegen, 1998) (Appendix E) was utilized to study partners' individual reports of the emotions that they experienced immediately before and after engaging with their partner in the ten-minute taped discussion of a conflictual relationship issue (the communication sample).

The PANAS is an internally consistent and empirically validated 22-item self-report questionnaire designed to assess positive and negative affect (Watson et al., 1998). As previously stated, Positive affect (PA) reflects the degree to which an individual feels enthusiastic, active, and alert (Watson et al., 1998). Alternatively, Negative affect (NA) is characterized by subjective distress and unpleasurable engagement that includes anger, contempt, disgust, guilt, fear, and nervousness (Watson et al., 1998). Similar to subscales, the PANAS uses word triads that assess dimensions of positive and negative affect; participants rate each word that describes a particular feeling or emotion in terms of how they are feeling at the particular moment using a 5-point Likert scale ranging from 1=very slightly or not at all to 5=extremely (Watson et al., 1998). Separately, the scores for the PA subscales and the scores for the NA subscales were added. The possible range of the scores was 22 to 110. The differences in PA and NA scores before and after the communication sample were scored, with a possible range in differences from -88 to 88.

Relationship Satisfaction

Relationship satisfaction was operationalized as marital adjustment perceived by each partner and was reported using the self-report measure, the Dyadic Adjustment Scale (DAS; Spanier, 1976) (Appendix F). Spanier (1979) described the DAS as a tool to measure marital adjustment, an aspect of marital quality, and is a widely used self-report measure of marital satisfaction due to its many dimensions. The scale consists of four subscales: dyadic satisfaction, dyadic cohesion, dyadic consensus, and affectional expression (Spanier, 1976). This measure is applicable for any couple relationship, including married and cohabitating couples. Spanier and Thompson (1982) found internal

consistency reliability for the DAS using Cronbach's coefficient alpha to be .91, and another study determined the total scale reliability to be .96 (Spanier, 1976). Construct validity for the DAS was established by assessing whether the scale measures the same general construct as a well-accepted marital adjustment scale, the Locke-Wallace Marital Adjustment Scale (Spanier, 1976). The correlation between the two scales among married and divorced participants was found to be .86 for the DAS and .88 for the Locke-Wallace Marital Adjustment Scale, and the correlation for the total sample was .93 (Spanier, 1976). Following the evaluation, the overall DAS scale and subscales have been concluded to be a suitable evaluation of dyadic adjustment (Spanier & Thompson, 1982).

The DAS was given during the Day 1 assessment. It is a 32-item self-report measure divided into six sections ranging from asking the partner to assess levels of agreement and disagreement on various topics (e.g., finances, affection, and sexuality) to how they feel about the future of their relationship. Examples of these items include, "How often do you discuss or have you considered divorce, separation, or terminating your relationship," How often does the couple "laugh together" or "calmly discuss something," and asking the individual to choose the best statement about how he or she feels about the future of their relationship, from "my relationship can never succeed, and there is no more that I can do to keep the relationship going" to "I want to desperately for my relationship to succeed, and would go to almost any length to see that it does." Rating is from zero to a maximum of six, depending on the section. The total score, which was used for this study, was calculated by summing the sub-scores for each of these domains, which may range from 0 to 151. Generally, a score of 100 or greater is considered high marital satisfaction and commitment to its continuance. The DAS was used to measure

how relationship satisfaction was associated with communication behaviors, because the communication sample was seen as a representative sample of the couples' manner of interacting when discussing a conflictual issue, as described as earlier.

Table 2

Summary of Variables, Conceptual and Operational Definitions, and Tools of Measurement

Variable	Conceptual	Operational Definition	Measure of
	Definitions		Variable
Independent Variable			
Communication Behaviors	Verbal (content) and nonverbal (affect) communication behaviors displaying positive and negative interactions with partner	Averaged scores of the ratings given to partners for their verbal and nonverbal communication behaviors on six global areas of positive and negative relationship interaction	Marital Interaction Coding System – Global (MICS-G)
Mediating Variable			
Perception of Criticism	The partner is perceived to behave in a negative interaction and when couple engages in negative processes escalating conflict	Total score on first item addressing Gottman’s identified negative interaction, criticism, perceived by partner (Perceived Criticism/Expressed Emotion)	Hooley and Teasdale Scale (H & T), Item # 1

Table 2 (Continued)

Summary of Variables, Conceptual and Operational Definitions, and Tools of Measurement

Variable	Conceptual Definitions	Operational Definition	Measure of Variable
Dependent Variables			
Partner's Emotional State	Self reported positive and negative affect in the moment	The difference in positive affect and negative affect before and after the communication interaction between partners	Positive Affect and Negative Affect Schedules (PANAS) Pre and Post
Relationship Satisfaction	Individual perception of level of satisfaction with relationship	Total sum of responses of all items that demonstrate level of dyadic adjustment; Higher scores indicate higher levels of relationship satisfaction	Dyadic Adjustment Scale (DAS)
		Responses on Items #3 & #4 on H&T will be averaged, describing how typical the communication interaction was during sample	Hooley and Teasdale Scale (H&T), Item # 3 & #4

CHAPTER III: RESULTS

Analyses

Prior to the hypotheses being tested, exploratory analyses were performed to determine if there were any significant differences in income levels and length of years together between the African American and Caucasian couples in this study. This process was conducted using an independent t-test analysis. In order to determine income, the incomes of spouses in each couple of each race were combined. The combined income for the African American couples (mean = \$78,381.29) and the Caucasian couples (mean = \$67,303.70) were found to be not significantly different ($p = .22$). When determining the length of years together for the couple, the wives' responses were utilized because women are known to be the family record keepers and to be consistent. The African American wives' responses for years together (mean = 6.42) and Caucasian wives' (mean = 6.40) were not found to be significant ($p = .91$). With no significant group differences found in income level or length of years together, the variables were not statistically controlled in the current study. Table 3 shows the mean and standard deviation scores for all variables of African American and Caucasian partners.

Table 3

Means and Standard Deviations of Variables for African Americans and Caucasians

Variable:	African American Couples (<i>n</i> = 20)	Caucasian Couples (<i>n</i> = 29)
Positive Communication		
Males	3.06 (.81)	3.35 (1.01)
Females	2.75 (.86)	3.31 (1.10)
Negative Communication		
Males	1.35 (.76)	1.18 (.92)
Females	1.44 (.80)	1.38 (.98)
Changes in Positive Affect		
Males	-.95 (6.76)	-1.72 (4.63)
Females	-1.55 (6.92)	-2.14 (7.67)
Changes in Neg. Affect		
Males	-1.45 (4.22)	-2.38 (5.71)
Females	-.15 (5.19)	-2.00 (8.32)
Relationship Satisfaction		
Males	90.35 (17.36)	88.83 (22.18)
Females	85.75 (24.01)	85.10 (23.41)
Perception of Criticism		
Males	5.35 (2.60)	4.83 (2.80)
Females	5.60 (3.15)	4.00 (2.74)

Note: Standard deviations are in parentheses.

The first six hypotheses were analyzed using a Pearson correlation coefficient. The next two hypotheses, hypotheses seven and eight, were analyzed using partial correlation coefficients, and the final hypothesis was analyzed using a multiple regression and ANOVA. Correlations with a significance level of $p < .05$ were considered significant, and a significant relationship that was $p > .10$ was considered a trend. The analyses used to test each hypothesis are described as follows:

Communication Behaviors and Changes in Emotional States

1. *One's greater positive communication behaviors will be associated with an increase in their partner's positive affect.* The Pearson correlation for the wives' positive communication behaviors with their husbands' PA was not significant; $r = .07$; $p = .32$. However, the correlation for husbands' positive communication behaviors with their wives' PA was significant; $r = .26$; $p = .04$. Therefore, hypothesis one was supported for the husbands' communication behaviors, but not for the wives' communication behaviors (see Table 3).
2. *One's greater positive communication behaviors will be associated with a decrease in their partner's negative affect.* For both partners, the Pearson correlations were not significant. The correlation for wives' positive communication behaviors with their husbands' NA was $r = -.21$; $p = .08$ and revealed a trend. The correlation for the husbands' positive communication behaviors with the wives' NA was $r = -.12$; $p = .21$; therefore, the results do not support the second hypothesis. The trend for the correlation for wives' positive communication with their husbands' NA will be addressed in the discussion (see Table 4).

3. *One's greater negative communication behaviors will be associated with an increase in their partner's negative affect.* The Pearson correlation for the wives' negative communication behaviors with their husbands' NA was significant; $r = .29$; $p = .02$. The Pearson correlation for husbands' negative communication behaviors with their wives' NA was not significant; $r = -.13$; $p = .19$. Therefore, this hypothesis only supported wives' negative communication behaviors with their husband's NA and not for the husbands' behavior with their wives' NA (see Table 4).
4. *One's greater negative communication behaviors will be associated with a decrease in their partner's positive affect.* The Pearson correlation for wives' negative communication behavior with their husbands' PA was not significant, but a trend was revealed; $r = -.19$; $p = .10$. However, the change in emotional state for the wives as a result of their husbands' negative communication behaviors was significant; $r = -.24$, $p = .05$. Therefore, hypothesis four was supported only for the husband's negative communication behaviors while the wives' negative communication was a trend (see Table 4).

Table 4

Correlations of Changes in Emotional State with Positive and Negative Communication

Communication				
Behaviors	Husbands' PA	Wives' PA	Husbands' NA	Wives' NA
Wives' Positive	.07	--	-.21	--
Husbands'				
Positive	--	.26*	--	-.12
Wives'				
Negative	-.19	--	.29*	--
Husbands'				
Negative	--	-.24*	--	-.13

Note: * $p < .05$. ** $p = .001$.

Communication Behaviors and Overall Relationship Satisfaction

Hypotheses five and six, which addressed the relationship between communication behaviors and overall relationship satisfaction, were tested utilizing the Pearson correlation analysis. Each hypothesis addressed the wives' behaviors and the husbands' behaviors separately and measured how the behaviors were associated with their partner's overall relationship satisfaction (see Table 5).

5. *One's greater positive communication behaviors will be associated with their partner's higher relationship satisfaction.* The Pearson correlation for the wives' positive communication behaviors with their husbands' DAS was not significant; $r = .16$; $p = .12$. The Pearson correlation for the husbands' positive communication behaviors with their wives' DAS was not significant, but a trend

was revealed; $r = .23$; $p = .06$. These results did not support the hypothesis that greater positive communication behaviors will be associated with greater overall relationship satisfaction for either partner, but there was a trend for the husbands' positive communication behaviors on the wives' DAS.

6. *One's greater negative communication behaviors will be associated with their partner's lower relationship satisfaction.* The Pearson correlation for the wives' negative communication behaviors with their husbands' DAS was not significant; $r = -.05$, $p = .36$. However, the Pearson correlation for husbands' negative communication behaviors with their wives' DAS was found to be significant; $r = -.43$, $p = .001$. Therefore, this hypothesis was only supported for husbands' negative communication behaviors with wives' DAS, but not for wives' negative communication behaviors with the husbands' DAS.

Table 5

Correlations of DAS with Positive and Negative Communication

DAS		Communication			
		Wives' Positive	Wives' Negative	Husbands' Positive	Husbands' Negative
Wives'	Pearson Correlation	--	--	.23	-.43**
	Sig. (1-tailed)	--	--	.06	.001
	N	--	--	49	49
Husbands'	Pearson Correlation	.16	-.05	--	--
	Sig. (1-tailed)	.14	.36	--	--
	N	49	49	--	--

Note: **Correlation is significant at the .01 level (1-tailed)

*Perception of Criticism as a Mediator between Communication Behaviors and
Relationship Quality*

The statistical test utilized for hypotheses seven and eight was partial correlation analysis to determine whether perception of criticism mediates the relationship between the two main effects: communication behaviors and changes in emotional state, and communication behaviors and overall relationship satisfaction. Each hypothesis addressed the wives' behaviors and the husbands' behaviors separately and measured how the behaviors were associated with their partner's changes in emotional state and overall relationship satisfaction. The partial correlations for each aspect of hypothesis seven were compared to the Pearson correlations obtained for the first four hypotheses

(see Table 6). The partial correlations for each aspect of hypothesis eight were compared to the Pearson correlations obtained for hypotheses five and six (see Table 6).

Perception of Criticism as a Mediator between Communication Behaviors and Changes in Emotional State

7. *One's perception of criticism will mediate the relationship between their partner's communication behaviors and the individuals' changes in emotional states.* This hypothesis was supported on three accounts and the explanations for each aspect of this is explained as follows:

- a. *One's perception of criticism will mediate the relationship between their partner's greater positive communication behaviors and an increase in one's positive affect.* It was expected that the partial correlation between positive communication behaviors and an increase in positive emotion during the couple discussion, controlling for the perception of criticism by the partner, would be smaller than the Pearson correlation between positive communication and increase in positive emotion. The Pearson correlation coefficient was $r = .26, p = .04$ for the husband's positive communication behaviors with the wives' PA, which was significant. When mediated by their wives' perception of criticism, the partial correlation was $.22, p = .07$; the relationship was not significant, but revealed a trend. The partial correlation was smaller and, although not significant, therefore supported the hypothesis that the wives' perception of criticism mediates the relationship between their husbands' greater positive communication behaviors and an increase in their wives' PA.

- b. *One's perception of criticism will mediate the relationship between their partner's greater positive communication behaviors and a decrease in the one's negative affect.* Due to the hypothesis that greater positive communication behaviors are associated with a decrease in negative affect were not significant for either spouse, partial correlation analyses were not conducted.
- c. *One's perception of criticism will mediate the relationship between their partner's greater negative communication behaviors and an increase in one's negative affect.* It was expected that the partial correlation between negative communication behaviors and increase in negative emotion during the couple discussion, controlling for the perception of criticism by the partner, would be smaller than the Pearson correlation between negative communication and increase in negative emotion. The Pearson correlation coefficient was $r = .29, p = .03$ for the wives' negative communication behaviors with their husbands' NA, which was significant. When mediated by the husbands' perception of criticism, the partial correlation was $.22, p = .07$; the relationship was not significant, but revealed a trend. The partial correlation was smaller and, although not significant, therefore supported the hypothesis that the husbands' perception of criticism mediates the relationship between their wives' negative communication behaviors and the husbands' NA.
- d. *One's perception of criticism will mediate the relationship between their partner's greater negative communication behaviors and a decrease one's*

positive affect. It was expected that the partial correlation between negative communication behaviors and decrease in positive emotion during the couple discussion, controlling for the perception of criticism by the partner, would be smaller than the Pearson correlation between positive communication and decrease in positive emotion. The Pearson correlation coefficient for the husbands' negative communication behaviors with their wives' PA was $r = -.24, p = .05$, which was significant. When mediated by the wives' perception of criticism, the partial correlation was $-.19, p = .09$; the relationship was not significant, but revealed a trend. Compared to the Pearson correlation coefficient, the partial correlation was smaller and, although not significant, therefore supported the hypothesis that the wives' perception of criticism mediates the relationship between their husbands' greater negative communication behaviors and a decrease in the wives' PA.

Table 6

Comparison of Pearson and Partial Correlations of Spouses' Communication Behaviors and Changes in Emotional State, Mediated by Perception of Criticism

Control		Communication			
Variable	Behaviors	Changes in Emotional State			
Perception of Criticism		Husbands'	Wives'	Husbands'	Wives'
		PA	PA	NA	NA
Husbands'	Wives'	.08		-.21	
	Positive	--	--	--	--
Wives'	Husbands'		.26*		-.12
	Positive	--	(.22, 46)	--	--
Husbands'	Wives'	-.19		.29*	
	Negative	--	--	(.22, 46)	--
Wives'	Husbands'		-.24*		-.116
	Negative	--	(-.19, 46)	--	--

*Note: *p < .05. **p = .001. n = 98. Partial Correlations, degrees of freedom (df) are in parentheses. The results show that hypothesis seven was not supported for either spouse's perception of criticism mediating the relationship between communication behaviors and changes in emotional state.*

Perception of Criticism as a Mediator between Communication Behaviors and Overall Relationship Satisfaction

8. *Individuals' perception of criticism will mediate the relationship between their partners' communication behaviors and the individuals' overall relationship*

satisfaction. This hypothesis was supported only for wives' perception of criticism as a mediating factor between their husbands' negative communication behaviors and the wives' lower DAS. Each aspect of this hypothesis is explained as follows:

- a. *Individuals' perception of criticism will mediate the relationship between their partners' greater positive communication behaviors and the individuals' higher relationship satisfaction.* The hypothesis that greater positive communication behaviors are associated with higher relationship satisfaction was not significant for either spouse; therefore, partial correlation analyses were not conducted.
- b. *Individuals' perception of criticism will mediate the relationship between their partners' greater negative communication behaviors and the individuals' lower relationship satisfaction.* It was expected that the partial correlation between negative communication behaviors and decrease in overall relationship satisfaction during the couple discussion, controlling for the perception of criticism by the partner, would be smaller than the Pearson correlation between negative communication and decrease in overall relationship satisfaction. The Pearson correlation coefficient for the husbands' negative communication behaviors with their wives' DAS was $r = -.43, p = .001$, which was significant. The partial correlation was $-.37, p = .005$ and therefore was significant. When determining the significance between these two correlations, the z score was $-.24$. With the z value being less than 1.96, the difference between the correlations is not

significant. Compared to the Pearson correlation, the partial correlation was smaller and therefore, the hypothesis that the wives' perception of criticism mediates the relationship between their husbands' greater negative communication behaviors and the wives' lower DAS was supported (see Table 7).

Table 7

Comparison of Pearson and Partial Correlations of Spouses' Negative Communication Behaviors and DAS, Mediated by Perception of Criticism

Perception			Husbands'	Wives'
of	Communication		DAS	DAS
Criticism	Behaviors			
Husbands'	Wives'	Pearson Correlation (n)	-.054 (49)	--
	Negative	Partial Correlation (df)	.131 (46)	--
Wives'	Husbands'	Pearson Correlation (n)	--	-.432 (49)**
	Negative	Partial Correlation (df)	--	-.369 (46) *

Note: * $p < .05$. ** $p = .001$

Culture/Race as a Moderator of the Relationship between Communication Behaviors and Perception of Criticism

- Culture/Race will moderate the relationship between individuals' negative communication behaviors and their partners' perception of criticism such that the association between more negative communication behavior and higher the*

partners' perception of criticism will be stronger for Caucasian couples than for African American couples. This hypothesis was tested using a multiple regression with race, negative communication behaviors, and the interaction effect of culture/race (Caucasian and African American) and communication behaviors predicting the level of perception of criticism that individuals perceived receiving from their partners during their communication sample. The analyses were run separately for husbands and wives. The significance of the results of the regressions was tested with an analysis of variance (ANOVA). A second ANOVA was then utilized to generate a 2 X 2 table of means to observe the pattern that occurred. The groups for this ANOVA were the "high" and "low" for the negative communication behaviors created by using a median split to obtain the two levels of negative communication behaviors.

In the regression analysis predicting the husbands' perception of criticism from their partners, the interaction of race and their wives' negative communication behaviors was a significant predictor; $R = .39$, $R^2 = .15$; $F(1, 47) = 8.28$, $p = .006$. In predicting the wives' perception of criticism from their partners, the interaction of the race and their husbands' negative communication behaviors was also significant; $R = .42$, $R^2 = .18$; $F(1, 47) = 10.03$, $p = .003$.

In order to examine the pattern of subjects' perceived criticism ratings for the significant race-by-negative communication interactions, separate 2 X 2 ANOVAs were computed for wives and husbands, with race and negative communication as the independent variables, and the perception of criticism as the dependent variable. In order to define "higher" and "lower" levels of negative

communication behavior from the continuous variable, median splits were conducted on the distributions of the husbands and wives' composite negative communication scores. The husbands' composite score were split at 1.00 at the cumulative percent of 49.0. The lowest scores through the median of 1.00 were recoded as lower negative communication (value = 1), whereas the median of 1.10 through the highest scores were recoded as higher negative communication (value = 2). The wives' composite score was split at 1.40 at the cumulative percent of 51.0. The lowest scores through the median of 1.40 were recoded as lower negative communication (value = 1), whereas the median of 1.50 through the highest scores were recoded as higher negative communication (value = 2).

The 2 X 2 set of cell means of each gender's ratings of perceived criticism from the partner were examined to understand the significant interactions between race and negative communication. The cell means for husbands' and wives' ratings of perceived criticism are presented in Tables 8 and 9, respectively.

Caucasian husbands' mean ratings of perceived criticism from their wives were 3.20 with lower negative communication from wives and 6.57 with higher negative communication from wives; whereas African American husbands' mean ratings of perceived criticism from their wives were 4.40 with lower negative communication from wives and 6.30 with higher negative communication from wives. The wider variation among Caucasian than among African American husbands in perceived criticism as a function of level of negative partner communication was consistent with this study's hypothesis.

Table 8

Means of Husbands' Perceptions of Criticism as a Result of the Interaction between Culture/Race and their Wives' Negative Communication Behavior

Wives' Negative Communication	Caucasian Husbands' ($n = 29$)	African American Husbands' ($n = 20$)
Low	3.20 (2.46)	4.40 (2.91)
High	6.57 (2.03)	6.30 (1.95)

Note: In the interaction effect, $F(1, 47) = 8.28, p = .006$. Standard Deviations are in parentheses.

The result did support the final hypothesis that culture/race would moderate the relationship between husbands' negative communication behaviors and their wives' perception of criticism (see Table 9). The relationship was significant, however, the pattern of means were not in the direction predicted for Caucasian couples; instead it was in the predicted direction for African American couples. The mean of the wives' perception of criticism for their Caucasian husbands and African American husbands with lower negative communication was 3.75 and 4.38 respectively. The mean of the wives' perception of criticism for their Caucasian husbands and African American husbands with higher negative communication was 4.31 and 6.42 respectively. There was a wider variation among African American than among Caucasian wives in perceived criticism as a function of level of negative partner communication was not consistent with this study's hypothesis.

Table 9

Means of Wives' Perceptions of Criticism as a Result of the Interaction between Culture/Race and their Husbands' Negative Communication Behavior

Husbands' Negative Communication	Caucasian Wives' (n = 29)	African American Wives' (n = 20)
Low	3.75 (2.60)	4.38 (2.88)
High	4.31 (2.98)	6.42 (3.18)

Note: $F(1, 47) = 10.03, p = .003$. Standard Deviations are in parentheses.

CHAPTER IV: DISCUSSION

The current study was intended to expand on the literature of African American couples by exploring the relationship between communication behaviors and relationship quality as mediated by perception of criticism. More specifically, the current study attempted to understand the ways in which communication behaviors of African American couples and Caucasian couples affect their changes in emotional state and overall relationship satisfaction when mediated by the partner's perception of criticism after discussing a conflictual issue.

It was expected that greater positive communication behaviors would be associated with an increase in the change in positive emotion and a decrease in the change in negative emotion in both spouses. Furthermore, it was expected that greater negative communication behaviors would be associated with an increase in the change in negative emotion and a decrease in the change in positive emotion in both spouses. In addition, it was expected that greater positive communication behaviors would be associated with higher overall relationship satisfaction for both husbands and wives and that greater negative communication would be associated with lower overall relationship satisfaction for both spouses. It was further hypothesized that the spouses' perception of criticism would mediate the relationship between communication behaviors and changes in emotional states. Specifically, the perception of criticism would mediate the relationship between greater positive communication behaviors and an increase in the change in positive emotion and a decrease in the change in negative emotion in both spouses, along with mediating the relationship between greater negative communication behaviors and an increase in the change of negative emotion and a decrease in the change

in positive emotion in both spouses. In addition, it was expected that the spouses' perception of criticism would mediate the relationship between communication behaviors and overall relationship satisfaction. Specifically, the perception of criticism would mediate the relationship between greater positive communication behaviors and higher overall relationship satisfaction for both spouses, along with mediating the relationship between greater negative communication behaviors and lower overall relationship satisfaction for husbands and wives. Finally, it was hypothesized that culture/race would moderate the relationship between negative communication behaviors and perception of criticism such that the association between more negative communication behavior and higher perceptions of criticism would be stronger for Caucasian couples than for African American couples.

As a result, the type of communication behavior displayed (negative vs. positive) clearly affects partners' perception of criticism and subsequent changes in how they feel and how satisfied they are with their relationship. When husbands' presented positive communication to their wives, there was an association with their wives' increase in positive change in emotion. When husbands' presented negativity in their communication to their wives, there was an association with their wives' decrease in positive change in emotion, the wives' had less satisfaction with their relationship, and when the wives' perception of criticism was the mediator, there was an association with their husbands' negativity and their wives lower relationship satisfaction. When wives' presented negativity in their communication, there was an association with their husbands' increase in negative change in emotion, with and without their husbands' perception of criticism. Between the races, there was a wider variation among Caucasian husbands in perceiving

criticism when their wives had higher negative communication behaviors than African American husbands. However, the inverse took place among African American wives than Caucasian wives when African American wives perceived criticism when their husbands had higher negative communication. Interestingly, Caucasian wives perceived the least criticism when their partners displayed greater negative communication behaviors, compared to all other groups.

Communication Behaviors and Changes in Emotional State

A significant correlation between positive communication behavior and changes in emotional state was found such that an increase in wives' PA was associated with their husbands' greater positive communication behaviors after discussing a conflictual issue. The hypothesis was supported for the husband's positive communication behaviors. One possible explanation that emerged was that when partners receive positive attention through communication behaviors, they may begin to feel positive towards the situation, themselves, or their partner. Indeed, cognitive behavioral theory acknowledges that actions can affect cognitions and emotions such that the action of the husbands' positive communication behaviors may be associated with the change in positive emotion for wives'. Therefore, this result was consistent with the cognitive behavioral theoretical framework and supports the current literature regarding the association between positive communication behaviors and nondistressed couples (Birchler, Weiss, & Vincent, 1975; Gottman & Krokoff, 1989; Schaap, 1984) by demonstrating a significant relationship between positive communication and Positive Affect.

In addition, the hypotheses that proposed an association between greater negative communication behaviors and an increase in NA and a decrease in PA were partially supported. There was a significant association between the wives' negative communication behaviors and their husbands' increase in NA and between the husband's negative communication behaviors and their wives' decrease in PA. A significant association was not found between wives' negative communication behaviors and their husbands' decrease in PA or the husbands' negative communication behaviors and their wives' increase in NA. However, a trend was revealed with the association between the wives' negative communication behaviors and a decrease in their husbands' PA, which suggests that there was a pattern between these two variables, but the correlation was not strong enough to be significant. These results agree with the current literature that suggests the presence of negativity can either influence further negativity or a decrease in the level of positivity (Gottman, 1979).

Communication Behaviors and Overall Relationship Satisfaction

There were no significant findings between positive communication behaviors and greater overall relationship satisfaction. However, a significant association between the husbands' negative communication behaviors and their wives' lower overall relationship satisfaction resulted. This finding supported some previous research which suggests that negative communication behaviors have a greater impact on partners' relationship satisfaction than positive behaviors (Weiss & Heyman, 1997). Cognitive behavioral theory presents a possible explanation to describe this finding in that these negative communication behaviors could influence the cognitions and emotions which constitute relationship satisfaction. Similar to negativity influencing how an individual

feels about a situation; i.e., change in their emotional state after discussing a conflictual issue with their spouse, partners may not be inclined to feel satisfied with their relationship if their spouse's actions are negative towards them.

Perception of Criticism as a Mediator between Communication Behaviors and
Relationship Quality

*Perception of Criticism as a Mediator between Communication Behaviors and Changes
in Emotional State*

There were significant findings to support the hypothesis that perception of criticism would mediate the relationship between communication behaviors and changes in emotional state. To begin, this hypothesis was supported for the husbands' positive communication behaviors with their wives' increase in positive emotion, when mediated by the wives' perception of criticism. The partial correlation for this association was not significant, but revealed a trend demonstrating a pattern between these variables. Using cognitive behavioral theory, a possible explanation for this result could be that with the greater presence of positive communication behavior by the husbands, the wives did not observe critical behaviors and not feeling criticized as a result may have assisted in the increase in their positive emotion.

Secondly, the hypothesis was supported for wives' negative communication behaviors with their husbands' increase in negative emotion, when mediated by the husbands' perception of criticism and for the husbands' negative communication behaviors with their wives' decrease in positive emotion, when mediated by the wives' perception of criticism. The partial correlations for both were not significant, but revealed trends. An explanation of this could be that the more salient critical behaviors were made

by one partner, the more the other partner observed, which may have led to their increase in negative emotion for the husbands and the decrease in positive emotion for the wives. In addition, couples in this study were seeking therapy for assistance in repairing their relationship and themselves. With communication problems as the most frequent complaint of couples entering therapy (Burlison & Denton, 1997; Geiss & O'Leary, 1981; Hahlweg, Revenstorf, & Schindler, 1984), it was expected that communication problems such as negative communication, would have negative effects on an individual. Therefore, it was the observed negativity made by the partners' that assisted in the increase in their negative emotion for the husbands and the decrease in positive emotion for the wives.

An observation of these results was made regarding the changes in positive and negative affect by the spouses, changes in the wives' positive affect by their husbands' communication behaviors, whether negative or positive, seemed to occur more than changes in the wives' negative affect, whereas the changes in the husbands' negative affect by their wives' communication behaviors, whether negative or positive, seemed to occur more often than changes in the husbands' positive affect. Responses on the PANAS (Pre and Post) are self-reported by the individuals and it may be worth studying in future research on the gender differences in self-concepts or in the social desirability bias of self report measures.

Perception of Criticism as a Mediator between Communication Behaviors and Overall Relationship Satisfaction

A significant relationship was found between husbands' negative communication and wives' lower satisfaction in the relationship when mediated by the wives' perception

of criticism. Consistent with cognitive-behavioral theory, how wives perceive their partner's behavior is more central to their own levels of satisfaction than the behaviors themselves. Husbands' mean for positive communication behaviors were much higher than their wives and the husbands' mean for negative communication behaviors were lower than their partners, however, wives' perception of criticism were higher than the means of their husbands. So perception has a strong impact on how satisfied with their relationship and in this case, wives had lower satisfaction.

Lastly, the women's level of education may play a role in how perceptive with criticism wives' are with their husbands. Previous research reports that individuals who have higher levels of education tend to have higher levels of relationship satisfaction and lower rates of divorce (Blumel, 1992). The mean percent of women in this study who have beyond a high school diploma were 90%, whereas the mean percent of men in this study who have education beyond a high school diploma was 72.2%. It was possible that the women, being more educated, may have had more of a motivation to study and analyze the relationship with their partners.

Culture/Race as a Moderator of the Relationship between Communication Behaviors and Perception of Criticism

The results did support that culture/race would moderate the relationship between husbands' negative communication behaviors and their wives' perception of criticism (see Table 8).

For the husbands' perception of criticism, the wide variation of the means for Caucasian husbands' with their wives' higher negative communication behaviors did favor the hypothesis in that was stronger than African American husbands' perception of

criticism. This finding supported the previous literature that there are aspects of communication that may change with the influence of culture/race (Johnson, K. 1971; Oggins, Leber, & Veroff, 1993; Oggins, Veroff, & Leber, 1993; Weisfeld & Stack, 2002) and that one's racial background influences how one perceives and reacts to others (Triandis, 1989).

In regard to the wives' perception of criticism, the hypothesis that culture/race would moderate the relationship between their husbands' negative communication was not supported. A significant relationship was present, but the means did not reflect the direction of the hypothesis. Unlike the mean of Caucasian husbands' perception of criticism favoring the hypothesis, the mean for African American wives' perception of criticism with their husbands' higher negative communication was stronger (mean = 6.42) than the Caucasian wives' perception of criticism with their husbands' higher negative communication behavior (mean = 4.31). This unexpected result was not consistent with the previous literature which describes African Americans as being more comfortable with expressing emotion than Caucasians, stating that emotionally intense expressions are favored in African American culture as long as they reflect genuine feelings, while restraining the expression of feelings is considered "cold," or "not for real" (Kochman, 1981). If expressing intense emotions are favored in the African American culture, then the results would not suggest that African American wives perceive criticism more strongly than Caucasian wives when experiencing their husbands' higher negative communication behaviors, but rather Caucasian wives perceiving criticism more strongly because they would not be accustomed to

experiencing such intense emotions since it is not as favored in the Caucasian culture than it is in the African American culture.

One possible explanation for African American wives' perceiving their husbands' criticism more strongly than Caucasian wives could be that culture/race and gender may interact to moderate partners' perceptions of criticism. For Caucasian husbands and African American wives, perceptions of criticism were independent of their partners' actual displays of negative behavior, demonstrating consistency with cognitive behavioral theory that individual perception makes the difference. Interestingly, Caucasian wives perceived the least criticism when their partners displayed greater negative communication behaviors, compared to all other groups. With Caucasian wives not being observed as directly expressive individuals, Caucasian husbands may not be displaying as high of a level of negative communication behaviors in response and therefore the Caucasian wives' perception of criticism was much lower and not as strong. As a result, the hypothesis that culture/race moderates the relationship between negative communication behaviors and perception of criticism was supported but not in the direction of Caucasian wives.

Lastly, another explanation for the wider variation in the means for African American wives' perception of criticism than for Caucasian wives' could be that because African Americans are more comfortable with intense emotions (Kochman, 1981), African American wives sought therapy when their husbands' negative behavior was perceived higher or too intense than what is considered acceptable in their culture. Again, since it is more common for wives or female partners than males to contact counseling services for assistance in their relationships, it may have been that the typical relationship

of a husband perceived to have greater negative communication behaviors by their wife was prevalent for African American wives, and therefore their variation of means was stronger than Caucasian wives.

Limitations of the Study

The limitations of the current study may assist in further explaining how some of the hypotheses of the study were not supported. To begin, the study was conducted using only couples who were eligible for the CAPP study and provided their consent to participate. This study can be only generalizable to couples seeking therapy and who have not experienced serious physical/psychological abuse in the past four months as part of the criteria for being a part of the CAPP study. As a result, couples without physical/psychological abuse and couples with severe, recent physical/psychological abuse were not included in the study. This narrowed the range of low and high negative communication behaviors and thus the interaction these variables may have on race and perception of criticism. In addition, other criteria that excluded couples from participating in the CAPP study included untreated use of substances, active threats of suicide or homicide, and a diagnosed, severe mental disorder of either partner. Therefore, the exclusion criteria restrict the sample from being representative of the general population which makes it difficult to generalize the findings to the diverse public.

The size of the sample could be seen as a limitation of the study in that more African American couples and a larger number of both types of couples would have provided a more representative sample and more power in the analyses. The sample was representative of the Washington, DC Metropolitan area in which the FSC is located. However, this was not representative of couples in society as a whole. The population

could be described as an urban, suburban area in which couples had higher levels of income, education, and were younger (see Table 1) than couples in other areas of society. Furthermore, the demographics of couples were homogeneous in their age, income, and level of education. Having a more diverse population in future studies may be more beneficial in providing a more in-depth representation of couples, allowing further research in the differences of culture/race, religion, gender, etc. Therefore, another limitation of the sample was the lack of diversity in sexual orientation and mixed couples. The sample of couples were only heterosexual couples and not same sex couples along with the sample comparing only African American couples and Caucasian couples and not interracial couples. The number of interracial couples was not large enough to be studied. These differences in future studies could provide more in-depth information about communication behaviors and perception of criticism of the differing cultures and races. Furthermore, the use of interracial couples with African American and Caucasian partners may further explain how differences of communication behaviors may impact perception of criticism, changes in emotional state, and overall relationship satisfaction of mixed couples and to what extent.

Next, a limitation of the study was that gender was not used as a moderator. With the complexity of the study as it was, the results of the study, i.e., the husbands' positive communication behaviors with the wives' increase in Positive Affect was significant and not the wives' positive communication behaviors with the husbands' Positive Affect, support the need to observe gender differences within and between the couples.

Lastly, a limitation was the majority of the assessments utilized for this study were self-report measures, which can be a limitation due to social desirability bias for the

participants. However, this study is one of the few studies to obtain observational data for African American couples.

Clinical Implications

Despite the limitations, the current study provided a better understanding of the differences in African American couples in their communication behaviors and how that impacts their perceptions of criticism, changes in emotional state, and overall relationship satisfaction when compared to the dominant Caucasian culture. Caucasians have been the primary research participants and many of the findings are then generalized as if they apply to society as a whole (Houston, 2002; Lannamann, 1991). In addition, even though marital research on communication behaviors and relationship quality has been of such importance, samples examined in most marital research have not been small and not as diverse (Karney, et. al, 2004). This study aimed not only to add to the literature on African American couples, but for the results to acknowledge that there is a difference between cultures/races and emphasize the importance of diversity in their samples. Furthermore, understanding how relationship characteristics differ among couples that differ in culture/race may be an important step towards a more complete account of how partners maintain satisfaction in their relationships. Future studies need larger samples to examine cultural/racial influences – both within and between groups - on partners' perceptions, communication behaviors, and changes in relationship satisfaction and emotional state

Next, this current study aimed to add to the literature on the perceptions of partners in relationships, specifically the perception of criticism. Recent literature has

examined criticism, such as Gottman's (1994b) work with couples communication which describes "The Four Horsemen of the Apocalypse": criticism, contempt, defensiveness, and withdrawal as predicative ways of sabotaging communication in the relationship. This study focused on one of these indications, criticism, specifically looking at the criticism partners' perceive that they are receiving from their partners during the course of discussing a topic on which they disagree. With perception of criticism having a significant association as a mediator of the relationship between husbands' negative communication behaviors and a decrease in wives' DAS, this may encourage clinicians to further investigate this association in therapy, specifically to determine whether such perceptions are informed by partners' racial and cultural perspectives.

Furthermore, this study addressed how couples' communication behaviors affect the partner's emotional state as a consequence of discussing a conflictual issue. There has been a lack of research regarding the level of emotional state responses that take place during the process of couple's interactions along with little information regarding predisposing factors that increase the likelihood that negative emotional states will occur during couple interactions. The relationship between such resulting emotional states and the experience of positive and negative communication between partners is neglected. This study added to this research by providing support that changes in emotional state can happen for both spouses and that clinicians can be alert to factors that effect this, such as husbands' positive communication behaviors with wives' Positive Affect, wives' negative communication behaviors with husbands' Negative Affect, and husbands' negative communication behaviors with wives' Positive Affect.

Lastly, this study investigated communication behaviors and how positive and negative communication behaviors can effect the changes in emotional state and overall relationship satisfaction, as well as how these communication behaviors can be mediated by perception of criticism in African American and Caucasian couples. Problems with communication are one of the main reasons why couples seek therapy, and this study added to previous research. Discovering what communication behaviors can impact changes in emotional state for individuals after discussing a conflictual issue may encourage clinicians to look at ways to provide psychoeducation to clients regarding their emotions following a conflictual conversation. The results of this study may encourage clinicians to employ cognitive-behavioral techniques to clarify the attributions and assumptions that husbands and wives make for their partner's positive and negative communication behaviors.

Appendices

A. Client Information and Instructions Sheet.....	70-71
B. Marital Interaction Coding System – Global (MICS-G).....	72
C. Hooley and Teasdale (H&T) Scale	73
D. Relationship Issues Survey (RIS)	74
E. Positive Affect and Negative Affect Scale (PANAS)	75
F. Dyadic Adjustment Scale (DAS)	76



Appendix A

COUPLE INFORMATION & INSTRUCTIONS

This is a first in a series of questionnaires you are being asked to complete that will contribute to the knowledge about couple therapy. In order for our research to measure progress over time we will periodically re-administer questionnaires. Please answer the questions at a relatively fast pace, usually the first that comes to mind is the best one. There are no right or wrong answers.

1. Case #: _____ 2. Therapist's(s') Code: _____ 3. Co-therapist's Code: _____ 4. Date: _____

The following information is gathered from each partner separately.

Name: (Print) _____ Address: _____
 E-mail address: _____ zip _____
 Phone Numbers: (h) _____ (w) _____
 (cell) _____ (fax) _____

5. Gender: M F 6. SS# _____ 7. Age (in years) _____

8. You are coming for: a.) Family _____ b.) Couple _____ c.) Individual Therapy _____

9. Relationship status to person in couple's therapy with you: 10. Total Number of Years Together: _____
 1. Currently married, living together married: _____ a. If married, number of years
 2. Currently married, separated, but not legally divorced
 3. Divorced, legal action completed
 4. Engaged, living together
 5. Engaged, not living together
 6. Dating, living together
 7. Dating, not living together
 8. Domestic partnership

11. What is your occupation? _____ 12. What is your current employment status _____
 1. Clerical sales, bookkeeper, secretary 1. Employed full time
 2. Executive, large business owner 2. Employed part time
 3. Homemaker 3. Homemaker, not employed outside
 4. None – child not able to be employed 4. Student
 5. Owner, manager of small business 5. Disabled, not employed
 6. Professional – Associates or Bachelors degree 6. Unemployed
 7. Professional – master or doctoral degree 7. Retired
 8. Skilled worker/craftsman
 9. Service worker – barber, cook, beautician
 10. Semi-skilled worker – machine operator
 11. Unskilled Worker
 12. Student

13. Personal yearly gross income: \$ _____ 14. Race: _____
 (i.e., before taxes or any deductions) 1. Native American
 2. African American
 3. Asian/Pacific Islander
 4. Hispanic
 5. White
 6. Other (specify) _____

15. What is your country of origin? _____
 What was your parent's country of origin? 16. _____ (father's) 17. _____ (mother's)

18. Highest Level of Education Completed: _____
 1. Some high school (less than 12 years) 5. Associate degree
 2. High school diploma (12 years) 6. Bachelors degree (BA, BS)
 3. Some college 7. Some graduate education
 4. Trade School (mechanic, carpentry, beauty school, etc.) 8. Masters degree (MA, MS, etc.)
 9. Doctoral degree (PhD, MD, EDD, etc.)

19. Number of people in household: _____ 20. Number of **children** who **live in home** with you: _____
 21. Number of children who **do not live** with you: _____

Names and phone number of **contact people** (minimum 2):

22. What is your **religious** preference? _____
1. Mainline Protestant (e.g., Episcopal, Lutheran, Methodist, Presbyterian, Unitarian)
 2. Conservative Protestant (e.g., Adventist, Baptist, Pentecostal)
 3. Roman Catholic
 4. Jewish
 5. Other (e.g., Buddhist, Mormon, Hindu)
 6. No affiliation with any formal religion

23. How often do you **participate in organized activities of a church or religious group**? _____
1. several times per week
 2. once a week
 3. several times a month
 4. once a month
 5. several times a year
 6. once or twice a year
 7. rarely or never

24. How **important is religion or spirituality** to you in your daily life? _____
1. Very important
 2. Important
 3. Somewhat important
 4. Not very important
 5. Not important at all

25. **Medications:** _____ Yes _____ No If yes, please list the names, purpose, and quality of **medication(s)** you are currently taking. Also list the name and phone number of the medicating physician(s) and primary care physician:

Medications: _____
Primary Care Physician: _____ **Phone:** _____
Psychiatrist? Yes/No Name & Phone, if yes. _____ **Phone:** _____

Legal Involvement:

26. A. Have you ever been involved with the police? Yes/No (circle)
 If yes, what happened? Explain: _____

27. B. Have formal, legal procedures (i.e., ex-parte orders, protection orders, criminal charges, juvenile offenses) been brought against you? Yes/No (circle)
 If yes, what happened? Explain: _____

28. If formal procedures were brought, what were the results (e.g., eviction, restraining orders?) _____

Many of the questions refer to your "family". It will be important for us to know what individuals you consider to be your family. Please list below the names and relationships of the people you will include in your responses about your family. Circle yourself in this list.

29. (Number listed in family) _____
- | | |
|-------------|---------------------|
| <u>Name</u> | <u>Relationship</u> |
|-------------|---------------------|

List the concerns and problems for which you are seeking help. Indicate which is the most important by circling it. For each problem listed, note the degree of severity by checking (✓) the appropriate column.

		4-Severe	3-Somewhat Severe	2 – Moderate	1 - Mild
30.	31.				
32.	33.				
34.	35.				
36.	37.				

38. The most important concern (circled item) is # _____

Appendix C

H & T SCALE (RESEARCH)

Gender: _____ Date of Birth: _____ Therapist Code: _____ Family Code: _____

Please answer the following questions by circling the most appropriate number on each corresponding scale.

1. In general, how critical do you think **YOUR PARTNER** was of you during the discussion you just had?

I	I	I	I	I	I	I	I	I	I
1	2	3	4	5	6	7	8	9	10
Not at all Critical									Very Critical Indeed

2. In general, how critical do you think **YOU** think you were of your partner during the discussion you just had?

I	I	I	I	I	I	I	I	I	I
1	2	3	4	5	6	7	8	9	10
Not at all Critical									Very Critical Indeed

3. How similar was **YOUR PARTNER'S** behavior to the way he or she typically behaves when the two of you discuss an issue at home?

I	I	I	I	I	I	I	I	I	I
1	2	3	4	5	6	7	8	9	10
Not at all Critical									Very Critical Indeed

4. How similar was **YOUR** behavior to the way he or she typically behaves when the two of you discuss an issue at home?

I	I	I	I	I	I	I	I	I	I
1	2	3	4	5	6	7	8	9	10
Not at all Critical									Very Critical Indeed

Appendix D

Relationship Issues Survey (RIS)

There are a variety of areas in a couple's relationship that can become sources of disagreement and conflict. Please indicate how much each of the areas is **presently** a source of disagreement and conflict in your relationship with your partner. Select the number on the scale which indicates how much the area is an issue in your relationship.

- 0 = Not at all a source of disagreement or conflict
- 1 = Slightly a source of disagreement or conflict
- 2 = Moderately a source of disagreement or conflict
- 3 = Very much a source of disagreement or conflict

- | | |
|---|--|
| _____ 1. Relationships with friends | _____ 16. Leisure activities and interests |
| _____ 2. Career and job issues | _____ 17. Household tasks |
| _____ 3. Religion or personal philosophy of life | _____ 18. Amount of time spent together |
| _____ 4. Finances (income, how money is spent, etc.) | _____ 19. Affairs |
| _____ 5. Goals and things believed important in life | _____ 20. Privacy |
| _____ 6. Relationship with family of origin (parents, siblings) | _____ 21. Honesty |
| _____ 7. Sexual relationship | _____ 22. Expressions of affection |
| _____ 8. Child rearing/parenting approaches | _____ 23. Trustworthiness |
| _____ 9. Personal habits | _____ 24. Alcohol and drugs |
| _____ 10. Amount of commitment to the relationship | _____ 25. Taking care of possessions |
| _____ 11. Understanding of each other's stresses or problems | _____ 26. Personal standard for neatness |
| _____ 12. Daily life schedules and routines | _____ 27. How decisions are made |
| _____ 13. Personal manners | _____ 28. Personal grooming |
| _____ 14. How negative thoughts and emotions are communicated | |
| _____ 15. How positive thoughts and emotions are communicated | |

Appendix E

Positive and Negative Affect Scales (PANAS)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Select the number from the scale that shows your feelings towards/about your partner **at this very moment**.

1
very slightly
or not at all

2
a little

3
moderately

4
quite a bit

5
extremely

_____ 1. interested (positive)

_____ 2. distressed (negative)

_____ 3. excited (positive)

_____ 4. upset (negative)

_____ 5. strong (positive)

_____ 6. guilty (negative)

_____ 7. scared (negative)

_____ 8. hostile (negative)

_____ 9. enthusiastic (positive)

_____ 10. proud (positive)

_____ 11. comfortable (positive)

_____ 12. irritable (negative)

_____ 13. alert (positive)

_____ 14. ashamed (negative)

_____ 15. inspired (positive)

_____ 16. nervous (negative)

_____ 17. determined (positive)

_____ 18. attentive (positive)

_____ 19. jittery (negative)

_____ 20. active (positive)

_____ 21. afraid (negative)

_____ 22. want revenge (negative)

Appendix F

Dyadic Adjustment Scale – Assessment (DAS)



DAS (ASSESSMENT)

Gender: _____ Date of Birth: _____ Therapist Code: _____ Family Code: _____

Most persons have disagreements in their relationship. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list. Place a checkmark (✓) to indicate your answer.

	<i>Always Agree</i>	<i>Almost Always Agree</i>	<i>Occasionally Disagree</i>	<i>Frequently Disagree</i>	<i>Almost Always Disagree</i>	<i>Always Disagree</i>
1. Handling family finances						
2. Matters of recreation						
3. Religious matters						
4. Demonstrations of affection						
5. Friends						
6. Sex relations						
7. Conventionality (correct or proper behavior)						
8. Philosophy of life						
9. Ways of dealing with parents and in-laws						
10. Aims, goals, and things believed important						
11. Amount of time spent together						
12. Making major decisions						
13. Household tasks						
14. Leisure time interests and activities						
15. Career decisions						

	<i>All the time</i>	<i>Most of the time</i>	<i>More often than not</i>	<i>Occasionally</i>	<i>Rarely</i>	<i>Never</i>
16. How often do you discuss or have you considered divorce, separation or terminating your relationship?						
17. How often do you or your partner leave the house after a fight?						
18. In general, how often do you think that things between you and your partner are going well?						
19. Do you confide in your partner?						

References

- Acitelli, L. K., Douvan, E., & Veroff, J. (1997). The changing influence of interpersonal perceptions on marital well-being among Black and White couples. *Journal of Social and Personal Relationships, 14*, 291-304.
- Acitelli, L. K., Douvan, E., & Veroff, J. (2004). The changing influence of interpersonal perceptions of marital well-being among Black and White couples. In R. L. Jackson (Ed.), *African American communications and identities: Essential readings* (pp. 137-146). CA: Sage.
- Allen, A., & Thompson, T. (1984). Agreement, understanding, realization, and feelings understood as predictors of communicative satisfaction in marital dyads. *Journal of Marriage and Family, 52*, 915-921.
- Asante, M., & Davis, A. (1985). Black and White communication: Analyzing work place encounters. *Journal of Black Studies, 16*, 77-93.
- Baucom, D. H., & Sher, T. G. (1987). Application of marital research and methodology to the study of the family. In K. Hahlweg & M. J. Goldstein (Eds). *Understanding major mental disorder: The contribution of family interaction research*. New York: Family Process Press.
- Birchler, G. R., Weiss, R. L., & Vincent, J. P. (1975). Multimethod analysis of social reinforcement exchange between martially distressed and nondistressed spouse and stranger dyads. *Journal of Personality and Social Psychology, 311*, 349-360.
- Blumel, S. R. (1992). Explaining marital success and failure. In S. J. Bahr (Ed.), *Family research: A 60-year review, 1930-1990: Vol. 2* (pp. 1-114). New York: Lexington.

- Bramlett, M. D., & Mosher, W. D. (2001). *First marriage dissolution, divorce, and remarriage: United States* (Advance data from vital and health statistics no. 323). Hyattsville, MD: National Center for Health Statistics.
- Burleson, B. R., & Denton, W.H. (1997). The relationship between communication skill and marital satisfaction: Some moderating effects. *Journal of Marriage and the Family*, 59, 89-902.
- Butzlaff, R. L., & Hooley, J. M. (1998). Expressed emotion and psychiatric relapse: A meta-analysis. *Archives of General Psychiatry*, 55, 547-552.
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern in marital conflict. *Journal of Personality and Social Psychology*, 59, 73-81.
- Cohen, S. E. (1992). Marital happiness and spousal consensus on beliefs about marital conflict: A longitudinal investigation. *Journal of Social and Personal Relationships*, 9, 89-102.
- Collier, M. J. (1988). A comparison of intracultural and intercultural communication among and between domestic culture groups: How intra- and intercultural competencies vary. *Communication Quarterly*, 36, 122-144.
- Collier, M. J. (1996). Communication competence problematics in ethnic friendships. *Communication Monographs*, 63, 314-336.
- Collier, M. J. (1997). Cultural identity and intercultural communication. In L. A. Samovar and R.E. Porter (Eds.), *Intercultural communication: A reader* (p. 337-347). Belmont, CA: Wadsworth.

- Collier, M. J., & Thomas, M. (1988). Cultural identity: An interpretative perspective. In Y.Y. Kim & W. B. Gudykunst (Eds.), *Theories in intercultural communication* (p. 99-120). Newbury Park: CA: Sage.
- Cousins, P. C., & Vincent, J. P. (1983). Supportive and aversive behavior following spousal complaints. *Journal of Marriage and the Family*, *45*, 678-681.
- Davidson, M. N. (2001). Know thine adversary: The impact of race on styles dealing with conflict. *Sex Roles*, *45*, 259-276.
- Epstein, N. B., & Baucom, D. H. (1989). Cognitive-behavioral marital therapy. In A. Freeman, K. M. Simon, L. E. Beutler, H. Arkowitz (Eds.), *Comprehensive handbook of cognitive therapy* (pp. 491-513). New York: Plenum.
- Epstein, N. B., & Baucom, D. H. (2002). *Enhanced Cognitive-behavioral therapy for couples*. Washington, D.C.: American Psychological Association.
- Erickson, F. (1979). Talking down: Some cultural courses of miscommunication in interracial interviews. In A. Wolfgang (Ed.), *Nonverbal behavior: Applications and cultural implications* (p. 99-126). New York: Academic Press.
- Ferreira, A. J., & Winter, W. D. (1974). On the nature of marital relationships: Measurable differences in spontaneous agreement. *Family Process*, *13*, 355-370.
- Flora, J., & Segrin, C. (2000). Affect and behavioral involvement in spousal complaints and compliments. *Journal of Family Psychology*, *14*, 641-657.
- Gavazzi, S. M., McKenry, P. C., Jacobson, J. A., Julian, T. W., & Lohman, B. (2000). Modeling the effects of expressed emotion, psychiatric symptomology, and marital quality levels on male and female verbal aggression. *Journal of Marriage and the Family*, *62*, 669-682.

- Gottman, J. M. (1979). *Marital Interactions: Experimental investigations*. New York: Academic Press.
- Gottman, J. M. (1994a). *What predicts divorce?* Hillsdale, New Jersey: Erlbaum.
- Gottman, J. M. (1994b). *Why marriages succeed or fail*. New York: Simon & Schuster.
- Gottman, J. M. (1995). A theory of marital dissolution and stability. *Journal of Family Psychology, 7*, 57-75.
- Gottman, J. M. (1999). *The marriage clinic: A scientifically-based marital therapy*. New York: Norton.
- Gottman, J. M., Coan, J., Carrere, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family, 60*, 5-22.
- Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: A longitudinal view. *Journal of Consulting and Clinical Psychology, 57*, 47-52.
- Gottman, J. M., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A study of verbal and nonverbal behavior. *Journal of Marriage and the Family, 39*, 461-477.
- Gottman, J. M., & Porterfield, A. L. (1981). Communicative competence in the nonverbal behavior of married couples. *Journal of Marriage and Family, 817-824*.
- Geiss, S. K., & O'Leary, K. D. (1981). Therapist ratings of frequency and severity of marital problems: Implications for research. *Journal of Marriage and Family Therapy, 7*, 515-520.
- Hahlweg, K., Revenstorf, D., & Shindler, L. (1984). Effects of behavioral marital therapy on couples' communication and problem-solving skills. *Journal of Consulting and Clinical Psychology, 52*, 553-566.

- Hecht, M. L., Collier, M. J., & Ribeau, S (1993). *African American communication: Ethnic identity and cultural interpretation*. Newbury Park, CA: Sage.
- Hecht, M. L., Larkey, L. K., & Johnson, L. N. (1992). African American and European American perceptions of problematic issues in interethnic communication effectiveness. *Human Communication Research, 19*, 219-236.
- Hecht, M. L., Ribeau, S., & Alberts, J.K. (1989). An Afro-American perspective on interethnic communication. *Communication Monographs, 56*, 385-410.
- Hooley, J. M., & Teasdale, J. D. (1989). Predictors of relapse in unipolar depressives: Expressed emotion, marital distress, and perceived criticism. *Journal of Abnormal Psychology, 98*, 229-235.
- Hooley, J. M., & Hahlweg, K. (1986). Interaction patterns of depressed patients and their spouses: Comparing high and low EE dyads. In M. J. Goldstein, I. Hand, & K. Hahlweg (Eds.), *Treatment of schizophrenia: Family assessment and intervention*. Berlin: Springer-Verlag.
- Houston, M. (2002). Seeking difference: African Americans in interpersonal communication research, 1975-2000. *The Howard Journal of Communications, 13*, 25-41.
- Hughes, P. C., & Baldwin, J. R. (2002). Communication and stereotypical impressions. *The Howard Journal of Communications, 13*, 113-118.
- Infante, D. A., & Wigley, C. J. (1986). Verbal aggressiveness: An interpersonal model and measure. *Communication Monographs, 53*, 61-69.
- Jackson, R. L. (Ed.) (2004). *African American communications and identities: Essential readings*. CA: Sage.

- Jenkins, J. and Karno, M., (1992). The meaning of expressed emotion: Theoretical issues raised by expressed emotion research. *American Journal of Psychiatry*, 149, 9-21.
- Johnson, K. (1971). Black kinesics: Some non-verbal communication patterns in Black culture. In R. L. Jackson (Ed.), *African American communications and identities: Essential readings* (pp. 39-46). CA: Sage.
- Johnson, M. D., Cohan, C. L., Davila, J., Lawrence, E., Rogge, R. D., Karney, B. R., Sullivan, K. T., & Bradbury, T. N. (2005). Problem-solving skills and affective expressions as predictors of change in marital satisfaction. *Journal of Consulting and Clinical Psychology*, 73, 15-27.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin*, 118, 3-34.
- Karney, B. R., Kreitz, M. A., & Sweeney, K. E. (2004). Obstacles to ethnic diversity in marital research: On the failure of good intentions. *Journal of Social and Personal Relationships*, 21, 509-526.
- Kenny, D. A., & Acitelli, L. K. (1994). Measuring similarity in couples. *Journal of Family Psychology*, 8, 417-431.
- Kirchmeyer, C., & Cohen, A. (1992). Multicultural groups – their performance and reactions with constructive conflict. *Group and Organization Management*, 17(2), 153-170.
- Kochman, T. (1981). *Black and White styles in conflict*. Chicago: University of Chicago Press.
- Lannamann, J. (1991). Interpersonal communication as ideological practice. *Communication Theory*, 1, 179-203.

- Lazarus, R. S. (1991). *Emotion and adaption*. New York: Oxford University Press.
- Lazarus, R. S., & Lazarus, B. N. (1994). *Passion and reason*. New York: Oxford University Press.
- Margolin, G., & Wampold, B. E. (1981). Sequential analysis of conflict and accord in distressed and nondistressed marital partners. *Journal of Consulting and Clinical Psychology, 49*, 554-567.
- Metz, M. E. (1993). *Manual for the Styles of Conflict Inventory (SCI)*. Palo Alto, CA: Consulting Psychologists Press, Inc.
- Murphy, C. M., & Hoover, S. A. (2001). Measuring emotional abuse in dating relationships as a multifactorial construct. In D.K. O'Leary, & R. D. Maiuro (Eds.), *Psychological abuse in violent domestic relations* (p. 29-46). New York: Spring Publishing Company, Inc.
- Ogawa, D. M. (1971). Small-group communication stereotypes of Black Americans. *Journal of Black Studies, 1*, 273-281.
- Oggins, J., Leber, D., & Veroff, J. (May 1993). Race and gender differences in Black and White newlyweds' perceptions of sexual and marital relations. *Journal of Sex Research, 30*, 152-161.
- Oggins, J., Veroff, J., & Leber, D. (1993). Perceptions and marital interactions among Black and White newlyweds. *Journal of Personality and Social Psychology, 65*, 494-511.
- Popp, D., Donovan, R. A., Crawford, M., Marsh, K. L., & Peele, M. (2003). Gender, race, and speech style stereotypes. *Sex Roles, 48*, 317-325.

- Ridley, C. A., Wilhelm, M. S., & Surra, C. A. (2001). Married couples' conflict responses and marital quality. *Journal of Social and Personal Relationships, 18*, 517-534.
- Rogge, R. D., & Bradbury, T. N. (1999). Till violence do us part: The differing roles of communication and aggression in predicting adverse marital outcomes. *Journal of Consulting and Clinical Psychology, 67*, 340-351.
- Schaap, C. P. D. R. (1984). Conflict resolution and marital satisfaction. *Nederlands Tijdschrift voor de Psychologie en Haar Grensgebieden, 39*, 396-403.
- Shade, B. J. (1982). Afro-American cognitive style: A variable in school success. *Review of Educational Research, 52*, 219-244.
- Smith, A. (1983). Nonverbal communication among black female dyads: An assessment of intimacy, gender, and race. *Journal of Social Issues, 39*, 55-67.
- Spanier, G. (1976). Measuring dyadic adjustment: New scales of assessing the quality of marriage and similar dyads. *Journal of Marriage and Family, 38*, 15-28.
- Spanier, G. (1979). The measurement of marital quality. *Journal of Sex and Marital Therapy, 5*, 288-300.
- Spanier, G., & Thompson, L. (1982). A confirmatory analysis of the Dyadic Adjustment Scale. *Journal of Marriage and the Family, 43*, 731-739.
- Straus, M. A. (1979). Measuring intrafamily conflict and violence: The conflict tactics (CT) scale. *Journal of Marriage and the Family, 41*, 75-88.
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scale (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283-316.

- Straus, M. Q., & Sweet, S. (1992). Verbal/symbolic aggression in couples: Incidence rates and relationships to personal characteristics. *Journal of Marriage and the Family, 54*, 346-357.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review, 96*, 506–520.
- U.S. Census Bureau. (2000). *Statistical abstract of the United States*. Washington, DC: U.S. Government Printing Office.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. *Journal of Personality and Social Psychology, 56*, 1063-1070.
- Weger, H. (2005). Disconfirming communication and self-verification in marriage: Associations among the demand/withdraw interaction pattern, feeling understood, and marital satisfaction. *Journal of Social & Personal relationships, 22*, 19-31.
- Weisfeld, C. C., & Stack, M. A. (2002). When I look into your eyes: An ethological analysis of gender differences in married couples' nonverbal behaviors. *Psychology, Evolution, & Gender, 4*, 125-147.
- Weiss, R. L., & Heyman, R. E. (1997). A clinical-research overview of couples interactions. In W. K. Halford & H. J. Markman (Eds.), *Clinical handbook of marriage and couples interventions* (pp. 39-41). Chichester, England: Wiley.
- Weiss, R. L., & Summers, K. J. (1983). Marital interaction coding system – III. In E. Filsinger (Ed.), *Marriage and family assessment* (pp. 85-116). Newbury Park: Sage.

- Weiss, R. L. & Tolman, A. O. (1990). The Marital Interaction Coding System – Global (MICS-G): A global companion to the MICS. *Behavioral Assessment, 12*, 271-294.
- Weitz, R., & Gordon, L. (1993). Images of Black women among Anglo college students. *Sex Roles, 28*, 19-34.
- Wood, J. T. (2004). *Interpersonal Communication: Everyday encounters (4th Ed)*. Belmont, CA: Wadsworth.
- Wuerker, A. K., Haas, G., & Bellack, A. (1999). Racial and gender differences in expressed emotion and interpersonal control in families of persons with schizophrenia. *Family Process, 38*, 477-496.