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To the Graduate Council:

I am submitting herewith a dissertation written by Nikki N. Frousakis entitled "Communication in married couples: Exploring the roles of betrayal and forgiveness." I have examined the final electronic copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Kristina Coop Gordon, Major Professor

We have read this dissertation and recommend its acceptance:

John Lounsbury, Deborah P. Welsh, Robert E. Levey

Accepted for the Council:

Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

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**COMMUNICATION IN MARRIED COUPLES: EXPLORING THE ROLES OF
BETRAYAL AND FORGIVENESS**

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Nikki N. Frousakis

May 2010

DEDICATION

This manuscript marks the culmination of a decade's worth of hard work and focus, all of which could not have been accomplished without the guidance, support, encouragement, wisdom, and opportunities offered by countless individuals along the way. This work is dedicated to each one of these individuals, most especially my mother Eleni Frousakis and my friend Rebecca Furr Webb, who continue to inspire me.

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ABSTRACT

This dissertation explored the associations between having experienced a major betrayal, forgiveness, and communication behaviors in married couples. The first aim of the current research was to compare the communication behaviors of couples who have experienced a major betrayal and are in various stages of the forgiveness process as delineated by Gordon, Baucom, and Snyder (2005) to couples who reported never having experienced a betrayal in their current relationship. The second aim of the study was to explore whether injured partners and their spouses behave differently when discussing the betrayal event than when they are conversing about a separate problem area in their relationship.

34 couples were observed having discussions about a problem area in their relationship and/or a betrayal event, and 3 undergraduate research assistants coded these interactions for the following communication behaviors: positive and negative affect, conflict, communication skills, positive and negative escalation, and validating and invalidating behaviors. The couples also reported their levels of forgiveness, marital satisfaction, and basic demographics. Analyses of Variance and Covariance (controlling for marital satisfaction) were used to explore hypotheses.

Marital satisfaction was related to how injured partners communicate with their spouses. The injured partner's level of forgiveness also was found to be related to how both partners communicate with each other regardless of discussion topic. Low levels of forgiveness were associated with less adaptive communication between spouses.

Implications, limitations, and future directions are discussed.

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CHAPTER I

INTRODUCTION

Communication is central to relationships and marital quality (e.g., Markman & Floyd, 1980; Noller & Feeney, 2002; Stanley, Markman, & Whitton, 2002), and poor communication in couples has been repeatedly linked to deleterious effects on marital satisfaction and stability (e.g., Christensen & Shenk, 1991; Cordova, Jacobson, Gottman, Rushe, & Cox, 1993; Markman & Floyd, 1980; Roberts & Noller, 1998). Fittingly, much of past research on couples has studied how partners communicate, assessing which patterns of interacting are most egregious for a relationship (e.g., Eldridge & Christensen, 2002; Gottman, 1979, 1980; Heavy, Christensen, & Malamuth, 1996), and how to best approach improving communication in marriage (e.g., Christensen & Jacobson, 2000; Epstein & Baucom, 2002). Whereas couples have been examined discussing a variety of topics, the dynamics of communication in couples who have experienced a major betrayal in their relationship has been under-researched.

The discovery of an interpersonal betrayal can be a devastating experience for a couple because it can call into question one's basic assumptions about one's relationship (Gordon & Baucom, 1998). Significant betrayals are traumatic interpersonal events (e.g., Glass, 2002; Gordon & Baucom 2003), and can be painful and challenging to forgive. Recovering from a betrayal in one's intimate relationship can mirror the process of recovering from a traumatic event (Gordon & Baucom 2003). Symptoms of grief, rumination, and nightmares or flashbacks, which are often experienced by injured partners, are similar to the experience endured by individuals diagnosed with Post Traumatic Stress Disorder. Major betrayals such as infidelity, keeping significant secrets, or the squandering

of a couple's life savings can have damaging effects on a relationship and ultimately lead to its dissolution (e.g., Hall & Fincham, 2006). Additionally, the experience of being betrayed often creates feelings of resentment and can lead to an increase in conflict within a dyad (Fincham, Beach, & Davila, 2007).

The pervasive and traumatic nature of betrayals (e.g. Gordon & Baucom, 1998, 1999) is likely to render them qualitatively different from typical problem topics in relationships (e.g., distribution of chores or balancing finances), and might profoundly alter the quality of a couple's typical communication style. For example, one might observe a sharper increase in conflict behaviors or decrease in positive behaviors after the discovery of a betrayal; however, this possibility has not been directly investigated using observational measures. One aim of the current study will be to examine this possibility.

Just as a betrayal might have far-reaching implications for how couples communicate, the injured partner's level of forgiveness of that betrayal is expected to influence couple communication and vice versa. The current study conceptualizes forgiveness in a manner that incorporates ideas articulated by Gordon and colleagues (e.g., Gordon, Baucom, & Snyder, 2005). In essence, once an individual has genuinely engaged in the process of forgiving one's partner, she or he is able to let go of negativity and vengeful feelings and develop a realistic and meaningful narrative of the events surrounding the betrayal. Those earlier in the process who have not yet forgiven, described as stage 1, might be experiencing a whirlwind of negative affect, confusion, and rumination about the betrayal while working on regaining their footing and a sense of control in their lives. Gordon and colleagues (2005) describe a variety of emotional, cognitive, and behavioral experiences injured partners might experience as they work through absorbing the news, making sense of the event, and

choosing to move on and let go of vengeful feelings; thus, it is reasonable to suspect that injured partners' observable communication behaviors might look different as well depending on where they are in the forgiveness process. For a comprehensive review of this conceptualization, see research by Gordon, Baucom, and Snyder (2005).

As mentioned above, it is expected that the degree of forgiveness of a betrayal is related to how a couple communicates after the betrayal. Recent research has found forgiveness to be associated with specific types of communication behaviors, such as having discussions about the transgression as well as explicit verbal expressions and affectionate nonverbal expressions of forgiveness (Waldron & Kelley, 2005). Also, Fincham, Beach, and Davila (2007) found that forgiveness plays an important role in conflict resolution, most likely by limiting negative escalation between the couple. Findings suggest that the injured spouse's level of forgiveness predicts the other spouse's perception of their ability to resolve conflict in their relationship (Fincham, Beach, & Davila, 2007). Children whose parents have experienced a betrayal also notice differences in degree of conflict between their parents based on the betrayed parent's level of forgiveness, particularly the mother (Gordon, Hughes, Tomcik, Dixon, & Litzinger, 2009). Furthermore, recovery from a betrayal seems to depend on the injured partner's ability to engage in the process of forgiving (Gordon, Baucom, & Snyder, 2004). In fact, couples who engaged in the forgiveness process in a study by Gordon and Baucom (1998; 2003) reported less dysfunctional marriages than those who did not appear to go through this process. Psychological benefits of forgiving include a decrease in negative affect such as feeling less anger, resentment, cynicism, and depression (Hebel & Enright, 1993), all of which are emotions that are likely to have implications for how couples communicate with each other. In research by Gordon, Hughes, and colleagues,

additional benefits included an improved parenting alliance, which also might influence inter-parental communication (Gordon, Hughes, Tomcik, Dixon, & Litzinger, 2009).

In summary, communication is important to a satisfying marriage. However, little is known about how the experience of a betrayal, in addition to the level of forgiveness of that betrayal relates to couples' communication behaviors. Thus, the purpose of the current research was to examine the roles of betrayal and forgiveness in marital communication. The first aim of this study was to explore if and how couples who have experienced a significant betrayal in their relationship differ in their communication from couples who did not report a betrayal. An additional aim was to observe betrayal couples discussing the betrayal they experienced as well as conversing about a separate area of relational conflict. Determining whether and how couples behave differently when discussing a betrayal event than they would if discussing any other area of tension in their marriage can inform the work of marital researchers and therapists. For example, approaches to communication skills training and limit-setting between spouses might be impacted by this information.

Furthermore, in the context of each of the above comparisons (i.e., betrayal and non-betrayal couples discussing a non-betrayal issue, and betrayal couples discussing the betrayal as well as a non-betrayal topic) this work examined how level of forgiveness relates to specific communication behaviors. The study aims are described below in more detail, and the specific communication behaviors examined in this paper are discussed.

Comparing Betrayal Couples and Non-Betrayal Couples

First, this study posed the following question: Do couples at the varying stages of the forgiveness process communicate differently, and how do they compare to couples who have

not experienced a betrayal? Although it has not been studied specifically, one could deduce from past research and theories about forgiveness (e.g., Gordon, Baucom, & Snyder, 2004, 2005; Enright & The Human Development Study Group, 1991; Enright, Eastin, Golden, Sarinopoulos, & Freedman, 1992; Fincham, Beach, & Davila, 2007) that a couple in the midst of the forgiveness process (i.e., processing the shock of having been betrayed and trying to make sense of this experience) is likely to communicate differently than a couple who has not had to forgive (i.e., has not experienced a betrayal) and differently than a couple who has fully forgiven a major transgression. For example, it is likely that high levels of negative affect during dyadic discussions are associated with couples who are still coping with the discovery of a betrayal, while couples who have forgiven or have never experienced a betrayal might exhibit significantly lower levels of negative affect toward their spouse.

Additionally, this study explored the possible residual effects of betrayals even when a betrayal has been forgiven. The communication behaviors of couples who have not experienced a betrayal (i.e., have not had to forgive) were compared to the communication behaviors of betrayal couples in which the injured partner reported thoughts, feelings, and behaviors consistent with high forgiveness levels. This particular line of research begins to answer the question of whether the effects of having experienced a betrayal are permanent or at least long-lasting, even after forgiveness has been granted. While some past research has highlighted the damaging effects of major transgressions (e.g., Gordon & Baucom, 1998; Enright & The Human Development Study Group, 1991; Enright, Eastin, Golden, Sarinopoulos, & Freedman, 1992), others have found that the result might be an improvement in satisfaction over time. For example, Kelley (1998) found that 26% of couples who experienced a betrayal and were able to forgive later reported that their

relationship improved and was stronger than before the betrayal occurred. For these couples, it could be that fully engaging in the forgiveness process afforded them an opportunity to improve weak areas in their relationship, which initially left them vulnerable to betrayal. Therefore, in the current research, it could be expected that forgiveness would be associated with greater levels of marital satisfaction, and communication might be even better than the average communication of couples who have not had to experience this process. Alternatively, there might be no noticeable differences between couples who have not been hurt by a betrayal and those who have completed the forgiveness process. Further and as mentioned above, it also could be expected that the impact of the betrayal is far-reaching and that there would be a distinct difference between couples who have had to forgive and those who never experienced this problem.

Within Group Comparisons: Are Betrayal Discussions Unique?

In addition to focusing on comparing the communication behaviors of couples who have experienced a betrayal to those couples who have not, this study explored more closely aspects of dyadic communication specifically for couples who have experienced a major transgression. The current research examined if betrayal couples' communication behaviors differ depending on the content of their conversations. Couples in the betrayal condition engaged in two interactions. In the first conversation, couples discussed a topic of some disagreement or tension in their relationship. In the second conversation, couples were instructed to discuss the betrayal event they endorsed having experienced in their relationship. An aim of the current study was to explore whether couples communicating differently when discussing the betrayal event as compared to how they would regularly

communicate when they are discussing another area of conflict unrelated to betrayal. Again, this line of research is exploratory in nature. Previous research has not suggested whether partners communicate more positively or negatively during betrayal-specific conversations than in discussions of more general relationship problems. It might be that injured partners become more hostile and less empathic than usual as they engage their partner in talking about the incident they found hurtful. As stated earlier, betrayals are often experienced as interpersonally traumatic events, which are frequently as emotionally dysregulating as they are shocking. The emotional stress such an event might impose could strain one's ability to communicate with kindness and empathy toward one's partner. On the other hand, the injured partner might show more empathy than he or she typically exhibits when discussing a non-betrayal issue in an effort to express to his or her partner understanding and acceptance. Thus, it is expected that whether an injured partner chooses to behave positively or negatively will be related to his or her level of forgiveness.

Participating partners (i.e., the individuals who engaged in the betrayal event) also might communicate differently when discussing a problem area in their relationship and when discussing the transgression in which they engaged. For example, participating partners might become more validating as they seek to reassure their partner and might act on their "best behavior" during a betrayal discussion. However, participating partners also might be sensitive to feeling attacked during these conversations, and instead might become more hostile if they are frustrated with not yet having been forgiven. Again, it is expected that forgiveness is related to how participating partners communicate during these two types of conversations. With increasing levels of forgiveness, one might expect levels of hostility to decrease in both partners, while levels of positive affect and positive reciprocity increase.

There is a notable gap in the literature about the communication behaviors of participating partners, which this study attempted to begin to address.

Communication Behaviors

As this study sought to examine how betrayal and forgiveness are related to communication behaviors in married couples, the elements of communication that repeatedly have been identified as fundamental to couple interactions were explored are described here. These behaviors included: demonstrations of positive and negative affect, conflict, communication skills, and reciprocity or escalation. These particular behaviors can be present in a variety of conversations (e.g., problem-solving discussions, social support communication, and informal discussions with one's partner) and all have been associated with marital satisfaction (e.g., Gottman, 1980; Markman & Floyd, 1980; Schapp, 1984). However, these elements of communication have not been examined in the context of betrayals, with the exception of recent research exploring predictors of infidelity (i.e., Allen, et al., 2008). Additionally, a variable that has been examined previously as a predictor of forgiveness (i.e., empathy) also was considered separately in this study to explore how it might relate to the experience of a betrayal and forgiveness. Feeling empathy for the one who hurt you has been repeatedly indicated to be significant to the forgiveness process for injured partners (e.g., Konstam, Chernoff, & Deveney, 2001; Fincham, Paleari, & Regalia, 2002; Macaskill, Maltby, & Day, 2002). However, ways of behaviorally communicating empathy for one's partner (i.e., validating and invalidating behaviors) have not been explored previously in the context of betrayal, thus they were explored here.

The Fundamentals. Communication behaviors that have been repeatedly associated with marital outcomes can be considered *fundamental* to marital relationships. The first fundamental behavior explored in the current research is the demonstration of affect. Affect is expressed through body positioning, tone of voice, and facial expressions (Gottman, Markman, & Notarius, 1977; Julien, Markman, & Lindahl; 1989). Positive and negative affect in couples have been examined for their effect on relationships, and results have indicated that these non-verbal communicative behaviors are associated with marital satisfaction and distress (Gottman, Markman, & Notarius, 1977; Schapp, 1984). The expression of negative affect has been found to have a greater impact on relationships than positive affect. That is, negative affect is more detrimental to relationships than positive affect is beneficial (Gottman, 1993; 1994). However, ultimately both are vital, and it is the balance between the two that is most pivotal to relationship functioning as a greater number of positive behaviors is necessary to offset the deleterious effects of negative behaviors. Gottman (1993; 1994) found that couples who exhibited a ratio of 5 positive behaviors for every negative behavior experienced less marital distress.

Additional aspects of couples' communication that are significant to marital outcomes are level of conflict in the relationship and how constructively or destructively this conflict is managed (i.e., communication skills). High levels of conflict have been associated with marital distress and marital instability (Fincham, 2003). Conflict is comprised of behaviors that communicate hostility, tension, oppositionality, and antagonism (Kline et al., 2004). Almost all couples experience conflict at times. However, past research clearly shows that during conflict non-distressed couples communicate more effectively than distressed couples (Christensen & Shenk, 1991; Noller, 1985). For example, Christensen and Shenk (1991)

found that divorcing couples reported lower levels of constructive communication compared to other distressed couples and much lower levels than non-distressed couples, and non-distressed couples tend to communicate in a way that conveys support for their partner (Gottman, 1979).

Further, reciprocity is fundamental to couples' interactions and has significant implications for couple functioning (Gottman, 1979; 1980). Reciprocity can be either positive or negative. It occurs when, for example, one member of the couple makes a negative remark and his or her partner responds in kind, further escalating the negativity within their interaction. Negative reciprocity is the "most reliable overt signature of marital distress" (Fincham, 2003). Positive reciprocity has received less attention than negative reciprocity (Kline et al., 2004). It seems, however, that positive reciprocity is related to positive sentiment override, which has been shown to have a protective effect in couples (Gottman & Silver, 1999).

In summary, the above elements (i.e., affect, conflict behaviors, communication skills, reciprocity) have been found to be fundamental to couple communication in a variety of research examining marital outcomes and satisfaction. Given their centrality to couples' general interactions, these fundamentals were examined here in the context of couples communicating about a betrayal in their marriage and/or an area of tension in their relationship.

Communicating Empathy: Validating & Invalidating Behaviors. Also of particular interest in this study was how couples communicate empathy for each other, and whether these behaviors were related to level of forgiveness. Previous research has examined the

association between empathy for the participating partner and the injured partner's ability to forgive. Konstam, Chernoff, and Deveney (2001) found that injured partners who scored high in empathic concern and perspective taking also reported a greater ability to forgive their partner. Additionally, empathy for the participating partner was related to the injured partners' openness to engaging in constructive reparative behaviors (Konstam, Chernoff, & Deveney, 2001).

Fincham, Paleari, and Regalia (2002) also found that empathy for the participating partner was significantly associated with forgiveness. However, the relationship between empathy and forgiveness was stronger for men than it was for women. Although women were found to be the more empathic sex overall, empathy was more strongly associated with men's ability to forgive their wives (Fincham, Paleari, & Regalia, 2002). A follow-up to this study also found that women are more empathic than men; however, this trait does not translate into women being more or less likely to forgive when compared to men (Toussaint & Webb, 2005). The follow-up study also demonstrated that empathy is critical in men's ability to forgive a betraying spouse. Unlike the research by Fincham and colleagues (2002), Toussaint and Webb (2005) did not find a significant relationship between empathy and forgiveness for women. The authors argued that this finding does not necessarily suggest that empathy is not important for women to be able to forgive, but rather that this "more empathic sex" might require additional motivation to be forgiving (Toussaint & Webb, 2005). Perhaps the additional motivation required for women to forgive stems from their offending *partner's* ability to first empathize with the pain, sadness, and anger women might feel for being betrayed. This component might be more critical for women than for men, if indeed women are the more empathic sex and, thus, better able to fill this requirement in

men's forgiveness process; in other words, male offenders' empathy might be more variable than female offenders' empathy.

In summary, studies have consistently shown that the injured partner's empathy for the participating spouse facilitates his or her process of forgiving. Two specific studies have shown that empathy for the participating partner is of particular importance for husbands struggling to forgive their spouse (Fincham, Paleari, & Regalia, 2002; Toussaint & Webb, 2005). The current study continued to explore the relationship between the injured partner's level of forgiveness and empathy for the partner who betrayed him or her by examining specifically the communication behaviors of injured partners. While previous research on forgiveness suggests that empathy for the participating partner facilitates forgiveness of the offense, the current study did not speculate on directionality of effects, but rather strictly explored the association between behaviors that communicate empathy and varying levels or categories of forgiveness.

Whereas the injured partner's ability to be empathic has been the topic of several years of research, the participating partner's empathy does not seem to have been explored. As mentioned above, it seems important to examine the relationship between forgiveness and the participating partners' demonstration of empathy for his or her spouse. As a couple deals with the impact of a betrayal, it might be that the participating partner who is high in empathy might be more likely to withstand the difficult and painful communication that this stage of the forgiveness process often entails. During this stage, injured partners are dealing with the traumatic emotional "blow" of discovering their loved one has been unfaithful, for example (Gordon, Baucom, Snyder, 2005). The emotional dysregulation, rage, and depression often experienced by the injured partner might be communicated to one's spouse

in destructive ways. The participating partner's ability to be empathic likely will aid in the injured partner's experience of feeling understood and might lead to a subsequent de-escalation of these negative emotions and heart-wrenching pain. In short, previous research has not considered the relationship between empathy for one's *injured* spouse and the injured partner's ability to forgive; thus, it was examined in the current study.

Further, previous research has not examined how empathic feelings specifically are communicated in relationships that have experienced a major transgression; how an offending partner communicates empathy or, on the other hand, dismisses an injured spouse's feelings, was unexplored. Similarly, how an injured partner's empathy is communicated was also largely unexplored. The relationship between these empathy-communicating behaviors and forgiveness was examined in the current research.

Empathy is an emotional and cognitive construct a person experiences. However, the behavioral mechanism for how one partner can communicate this feeling to the other might lie in a particular subset of communication behaviors – validation and invalidation. Linehan (1997) highlights the close association between empathy and validation. She argues that one needs to feel empathy in order to be able to offer appropriate validation to another and not be invalidating of his or her experience and emotions (Linehan, 1997). It seems then that validation is the vehicle by which one communicates empathy. In their work on the effects of validation and invalidation on pain reduction referenced above, Cano and colleagues (2006) conceptualize validating behaviors as empathic and invalidating behaviors as unempathic. Additionally, Fruzzetti and Iverson (2007) write, "Validation communicates understanding and acceptance, and consequently builds trust and intimacy."

In short, it appears that empathy is expressed through validating and invalidating behaviors. For this reason and because of the important implications of empathy on the forgiveness process and relationship quality, the relationship between these communication behaviors and the forgiveness process were explored in addition to, and separate from, the fundamental couple communication behaviors.

Summary of Study Aims

In sum, this study evaluated the interactions of 34 married couples. Twenty-two of the couples have experienced a major betrayal, and injured partners reported on their level of forgiveness. All couples completed a marital satisfaction questionnaire and engaged in two videotaped conversations discussing areas of disagreement in their marriage. For betrayal couples, the second “area of disagreement” discussed was the betrayal event.

Communication behaviors assessed in each dialogue included: positive affect, negative affect, conflict, communication skills, positive escalation, negative escalation, validation, and invalidation. All initial analyses controlled for marital satisfaction in an effort to determine whether forgiveness offers any unique variance above the general marital climate. This study put forth the following research aims:

1. The first aim of this study was to compare the communication of couples who have experienced a betrayal to that of couples who have not experienced a betrayal in their marriage as they discuss an issue of some tension in their relationship but which is not the betrayal event. The role of forgiveness in these dialogues was examined.

Hypothesis 1a: Based on previous research indicating that there is a linear relationship between forgiveness and various communication behaviors, this study predicted that in each consecutive stage of forgiveness, fewer negative communication behaviors (i.e., negative affect, conflict, negative escalation) and more positive communication behaviors (i.e., positive affect, communication skills, and positive escalation) would be observed. Scores on the communication codes would be significantly different between each level of forgiveness (i.e., stage 1-low, stage 2-medium, and stage 3-high) for both injured and participating partners.

Hypothesis 1b: The question of how couples who have not experienced a betrayal will differ from those couples who have, and specifically from those who have forgiven their partner (i.e., high level of forgiveness), remained largely exploratory. Some research suggests that couples who have forgiven might have a better relationship post-betrayal than before the betrayal event occurred. There is little empirical evidence to support this assertion and much anecdotal evidence to suggest that betrayals leave a long-lasting and perhaps permanent negative imprint on the quality of a marriage. Thus, this study explored if and how the communication behaviors of couples who have not experienced a major betrayal might differ from those couples who have engaged in the forgiveness process, and specifically if couples who reported a high level of forgiveness significantly differ from couples who have not experienced a significant betrayal for both positive and negative communication behaviors.

Hypothesis 1c: It is expected that the degree of validating and invalidating behaviors will significantly differ between each stage of forgiveness as well. Based on previous research, there is an association for injured partners between their level of forgiveness and degree of empathy for the participating spouse. Thus, it was expected that degree of validating behaviors exhibited by the injured partner for the participating partner would be positively related to level of forgiveness and would differ significantly between each level of forgiveness. For example, one who is highly forgiving of his or her partner's transgression would exhibit far more validation behaviors than one who endorses a low level of forgiveness. Although research on issues related to participating partners is limited, this study expected there to be a relationship between stage of forgiveness and the participating partner's demonstration of validating and invalidating behaviors. In short, this study predicted that both injured and participating partners would exhibit increasingly more validating behaviors and fewer invalidating behaviors in each consecutive level of forgiveness.

Hypothesis 1d: The question of how the degree of validating and invalidating behaviors differs between couples who have and have not experienced a betrayal also was exploratory and examined here. Do couples who report a high level of forgiveness exhibit significantly more or less validating behaviors when compared to couples who have not experienced a betrayal in their marriage? Similarly, do levels of invalidating behaviors differ between

these two groups of couples? As with hypothesis 1b, this study sought to examine the possible residual effects of betrayals.

2. The second aim of this study was to compare the communication behaviors of betrayal couples discussing the betrayal event to behaviors displayed while they communicate about a non-betrayal issue that is an area of disagreement for the couple. The role of forgiveness in these dialogues was examined through the following within-group comparisons.

Hypothesis 2a: Since betrayals can be devastating and traumatic events that might disrupt a couples' normal functioning, it was expected that the negative emotions and behaviors they often bring out in couples would be evident in other facets of the couples' life together and be related to a decrease in positive aspects in their relationship. However, for injured partners endorsing higher levels of forgiveness (i.e., endorse thoughts, cognitions, and behaviors consistent with stage 2 or 3 of the forgiveness process), it was expected that fewer negative emotions and behaviors would be observed, and that these behaviors would become more contained and focused on the betrayal event. Also, more positive behaviors were expected to be observed throughout the relationship (i.e., when discussing the betrayal event as well as when discussing a separate problem area in the relationship). Specifically, it was predicted that there would be an effect for discussion type (i.e., betrayal vs. non-betrayal) for medium levels of forgiveness, but not for low or high levels of forgiveness. In stage two (i.e., medium forgiveness), this study proposed that injured and participating partners would exhibit higher levels of negative

behaviors and lower levels of positive behaviors while they are discussing the betrayal compared to when they are discussing a different problem in their relationship. Dyads in stage one would exhibit high negative and low positive behaviors during both discussions, while couples in stage three would behave more positively and less negatively in both their discussions as compared to couples in stage one.

Hypothesis 2b: The interaction between level of forgiveness and discussion type on the demonstration of validating and invalidating behaviors required further exploration as well. This hypothesis was exploratory.

CHAPTER II

METHOD

Participants

Participants were 34 heterosexual married couples recruited from the Knoxville metro area, who agreed to complete self-report measures regarding their marital relationship as well as to be videotaped interacting with their spouse. The original dataset contained 35 couples; however, one couple's data was not included because their recording was not audible and could not be coded appropriately. All couples participated in a larger study of forgiveness and family functioning during data collection for that project in 2002-2003. Recruitment for the larger study was conducted by contacting local families from a mailing list purchased from a national company specializing in collecting and providing contact and demographic information to interested parties. Couples whose contact information appeared on this list first were mailed information about the larger study. The informational letter was followed-up with a telephone call. During this call, couples were screen for eligibility and interest in participating. Eligible families had at least one child between the ages of 11 and 16. If the couple agreed to participate, they were mailed a packet of questionnaires inquiring about their marital functioning, possible history of betrayals, parenting, and child functioning. Their child also was mailed a packet of measures assessing his or her own functioning and perceptions of the parent's relationship. Of the couples who were eligible to participate, 18% returned completed packets and were given a \$20 gift certificate. Next, all couples who reported a clear indication of hurt feelings or feeling let down by their partner on the Forgiveness Inventory were categorized as having experienced a betrayal. They were invited

to participate in the second phase of data collection – the videotaped interactions. As referenced above, 35 of these couples participated in being videotaped interacting with their spouse. An additional 16 couples were invited into the laboratory to be videotaped but declined or had separated and no longer were living together.

Couples included in the current research reported being married an average of 16.7 years (S.D. = 6.82) and earning an average combined yearly income of approximately \$75,000, which ranged between \$10,000-249,999. Participants' average number of children was 2.8 (S.D. = 1.53), with a range between 1 and 9. The average age for female participants in this study was 42.5 (S.D. = 4.88), with a median and mode of 43. Women reported an average of 15.2 years of education (S.D. = 2.30), ranging between 10-20 years. 82.4% of females reported that this is their first marriage, while 11.8% reported being in their second marriage, and 5.9% are in their third marriage. Average age for males was 43.6 (S.D. = 6.02), with a median of 42.5 and a mode of 41. The men in the sample reported having an average of 15.8 years of education (S.D. = 2.77), with a range between 11-26 years. Only one individual, a physician, reported 26 years of education. Without his data included, the mean for male's years of education was 15.5 with a range between 11-20. 79.4% of males reported that they are in their first marriage, while 17.6% are in their second, and one individual is in his third marriage. The sample was predominately Caucasian. Approximately 91% of females described themselves as Caucasian, while one individual identified herself as Asian, another as African-American, and one declined to answer. Approximately 94% of males identified as Caucasian, while one individual identified himself as Asian, and another as African-American.

Of the included 34 couples, 22 reported having experienced a betrayal. Table A-1 lists descriptives of demographic variables for those participants in the betrayal condition separate from those in the non-betrayal condition. Further, only 12 of the 22 injured partners in this sample reported on how long the process of trying to forgive their partner has taken. Participants answered the following question, “How long has this process taken (the process of trying to forgive your partner)?” While this item is not ideal with which to measure when the betrayal event occurred, it offers information on how long this process has seemed to take for individuals who remained in their relationship. At the time of data collection, injured partners who completed this item had engaged in the process of forgiving their partner for an average of 1-2 years, with a range of less than 3 months to more than 10 years.

Measures

In addition to the following measures, participants completed a brief demographic questionnaire. Information regarding age, race, education level, income, length of relationship, and number of children was obtained.

Dyadic Satisfaction Subscale of the Dyadic Adjustment Scale (DSS of the DAS; Spanier, 1976). The DSS is a 10-item subscale of the DAS, which is a 32-item measure of overall marital adjustment. The DSS score can range from 0 to 50, and the full DAS can range from 0 to 151. Higher scores indicate better marital functioning, and higher scores on the DSS, specifically, indicate greater marital satisfaction. Scores on the full DAS which fall below 98 suggest significant marital distress. Nine of the items comprising the satisfaction subscale are answered on a 5, 6, or 7-point Likert scale from *never* or *extremely unhappy* to *all the time/everyday* or *perfect*. One such item asks, “How often do you discuss or have you

considered divorce, separation, or terminating your relationship?” The tenth item of the satisfaction subscale requires the participant to describe “how you feel about the future of your relationship.” Possible answers to this item include, “I want desperately for my relationship to succeed, and would go to almost any length to see that it does,” and “It would be nice if it succeeded, but I refuse to do any more than I am doing now to keep the relationship going.” The DSS is one of four subscales included in the DAS; the others include Affectional Expression, Cohesion, and Consensus. The satisfaction subscale, DSS, was used in the current research as it has been demonstrated to be a reliable measure of marital satisfaction; Spanier (1976) reported good reliability with an alpha coefficient of .92 and suggested the subscale can be used alone. In general, adequate reliability has been demonstrated for the DAS and all of its subscales, with coefficient alphas ranging from .73 to .96. Carey and colleagues found that the DAS has good test-retest reliability (Carey, Spector, Lantinga, & Krauss, 1993). They reported stability coefficients ranging from .75 to .87. Additionally, the DAS correlated significantly with external criteria of marital status and other existing measures of marital adjustment, thus demonstrating adequate criterion-related and construct validity (Spanier, 1976). The DAS remains a widely used measure in the field of marital research, and its subscales alone are often used.

Forgiveness Inventory (FI; Gordon & Baucom, 2003). The Forgiveness Inventory is a 25-item questionnaire created to assess the entire process of forgiving a betrayal based on a model of forgiveness delineated by Gordon & Baucom (2003). In this model, the process of forgiveness is conceptualized as consisting of 3 stages: dealing with the impact, searching for meaning, and recovering or moving forward. The first stage of the forgiveness process is associated with zero to low levels of forgiveness, while stage 2 can be described as a medium

level of forgiveness, and stage 3 as a high level of forgiveness. Participants are instructed to rate how often they currently experience the various items assessing the cognitive, behavioral, and emotional components related to each stage. Items are rated on a 5-point Likert scale ranging from 1 (almost never) to 5 (almost always). An example of an item assessing a behavioral component of stage 1 is “I want to make my partner ‘pay’ for what he/she did.” A cognitive component item for stage 2 is “I want to find out why my partner did this.” An emotional component item for stage 3 is “I am able to let go of my anger about what happened.” Alphas for the three subscales corresponding to the three stages were reported by Gordon and Baucom (2003) and were good, ranging from .75 to .85. The FI has been shown to be highly predictive of couples' functioning in a variety of areas and have good validity (Gordon & Baucom, 2003). It also has been shown to be sensitive to clinical changes during marital therapy (Gordon, Baucom, & Snyder, 2004).

The Coding Systems. Each of the interactions couples engaged in were coded for the various behaviors articulated earlier (e.g., positive, negative, validating, and invalidating communication) using two reliable coding systems developed by researchers who study communication behaviors and processes in married couples. These two coding systems were chosen for their ability to capture the particular constructs of interest in this study. Additionally, the coding systems were chosen because the prompts given to couples to begin their discussions are similar to the prompt used in the current research.

Videotaped interactions were coded for validating and invalidating behaviors using a system developed by Allen Fruzzetti (2001). The Validating and Invalidating Behavior Coding Scale (VIBCS) yields two overall scores, one for behavior that communicates empathy (i.e., validation) and the other for unempathic behavior (i.e., invalidation). Scores

range from 1 (no validation/invalidation) to 7 (only validation/invalidation). The manual described several validating communication behaviors including “normalizing” the other’s thoughts/feelings/behaviors based on given circumstances by saying, for example, “Anyone (or I) would feel the same way in this situation.” An example of an invalidating communication described in the manual is a statement that would “pathologize or criticize the other’s behavior when it is reasonable or normative in present circumstances,” such as still grieving several weeks after a parent’s death. Previous research using this system found that high inter-rater reliability was achievable, and that scores were correlated with marital satisfaction (Cano, Barterian, & Heller, 2008). Four global scores have been derived from each couple interaction; husband and wife were each assigned a validation and invalidation score for each of the two dyadic discussions in which they participated.

Also, selected components of the Interactional Dimensions Coding System (IDCS) developed by Julien, Markman, and Lindahl (1989) were used to capture additional individual and dyadic aspects of the aforementioned couple interactions. The IDCS is a global coding system as well. It was designed to assess an interaction in its entirety and capture both the behavioral and emotional components of a couple’s exchange (Julien, Markman, & Lindahl, 1989; Kline et al., 2004). Selected *individual* codes included in the current research were positive affect, negative affect, conflict, and communication skills. The demonstration of positive and negative affect was understood through observing the degree of positivity or negativity expressed through non-verbal cues such as tone of voice, facial expressions, and other body language. The conflict code identified “behaviors that encourage arguing,” while the communication skills code captured a partner’s skill for expressing thoughts and feelings, negative or positive, in a constructive manner. Two *dyadic*

patterns also were coded, negative escalation and positive escalation, which attempted to address the issue of reciprocity (Gottman, 1979; 1980), which has been indicated in marital satisfaction and stability. Scores range from 1 (extremely uncharacteristic) to 9 (extremely characteristic). Regarding the conflict code, someone scoring a 1 would not have displayed any “affective or content signs of conflict,” while an individual assigned a 9 displayed “remarkably intense signs of conflict throughout the entire interaction.” Previous research implementing this coding system support that it is valid and reliable (Allen et al., 2008; Kline et al., 2004).

Procedures

After receiving a packet of questionnaires in the mail, couples completed the DAS, FI, and the brief demographic questionnaire along with several other self-report measures administered as part of the larger study mentioned above. After completing the questionnaires, 51 couples were invited to come into the laboratory to be videotaped in communication tasks as part of a small pilot study examining family communication. Those couples agreeing to be videotaped interacting with their spouse and their adolescent child presented to a research laboratory at the University of Tennessee. Only the couple communication tasks were analyzed for this study.

Upon arrival at the research laboratory, couples were brought together in a room equipped for videotaping. They were instructed to discuss an issue selected by the researcher from the couple’s DAS measures for which they both had expressed disagreement. Couples were asked to discuss the topic for 10 minutes while the researcher left the room and they were videotaped. The return of the researcher indicated that time was up. Couples in which

one or both partners completed the FI were then instructed to engage in a 10 minute discussion about the betrayal one of them experienced. For couples in which both partners reported betrayals, one was chosen at random (i.e., flip of a coin). Those couples who did not report a betrayal were asked to discuss an additional area of disagreement selected by the researcher from their DAS reports. Participating couples were compensated for their time and effort by receiving a \$30 mall gift card and parking validation.

Missing Data

There were no missing items on the FI or among the scores for the communication codes. Missing data on demographic variables were not replaced. For the DAS, missing values were few and appeared random. They were replaced by the participant's average response on his or her own scale, if and only if, at least 80% of the items were completed (i.e., at least 26 of the 32 items).

Coding the Interactions

The author trained 3 undergraduate research assistants involved in this project to become reliable in coding the constructs of interest. Coder training for the IDCS was based on the coding manual provided by the developers of this system. Training for the VIBCS also followed the coding manual for this system and, because it is a new system, the author sought consultation with Allen Fruzzetti, who created this coding system, and with Annmarie Cano, who used the VIBCS in her research (Cano, Barterian, & Heller, 2008). Coders trained using videotapes of couples interacting. The couples in the training tapes were not the ones participating in the current research.

Inter-rater reliability was measured for each behavioral code using the Cronbach's alpha statistic (Cronbach, 1951), which is indicated when there are more than 2 fixed raters coding each of the multiple items being assessed and the objective is to determine the degree of consistency between raters (Cronbach, 1951; McGraw & Wong, 1996; Shrout & Fleiss, 1979). Once the raters reached acceptable levels of reliability using the training videos (i.e., .70 and above, with one exception of .60), the 3 undergraduate research assistants each coded all of the 68 10-minute discussions included in this study. Inter-rater reliability ranged between .72-.87, with the exception of 3 codes: positive escalation ($\alpha = .46$), wife communication skills ($\alpha = .60$), and husband validation ($\alpha = .65$), (see Table A-2 for a complete list of alphas). The coders' scores were averaged to create each of the communication variables (i.e., positive escalation, negative escalation, positive affect, negative affect, communication skills, conflict, validating, invalidating).

Composite scores for overall positive and negative communication were created for both husbands and wives. The composite score for positive communication was comprised of the sum of the positive affect variable and the communication skills variable. The composite score for negative communication was made up of the sum of the negative affect and conflict variables. Codes have been combined in a similar way in previous research (Allen et al., 2008). To assess if these compositions were appropriate in the current research (i.e., that they fit well together), interclass correlations were assessed by examining each of the rater's scores on both codes included in the given composite score (Cronbach, 1951; McGraw & Wong, 1996; Shrout & Fleiss, 1979). Internal reliability for the composite scores was good (also listed in Table A-2): for wife positive communication $\alpha = .79$, for wife

negative communication $a = .90$, for husband positive communication $a = .86$, for husband negative communication $a = .89$.

The positive and negative escalation codes are dyadic in nature as there was only one score given for each couple in each discussion. Thus, these codes were not incorporated into the *individual* composite communication scores. Additionally, the variability within these two particular codes is limited (i.e., scores concentrated within the range of 1-3 for positive escalation as well as for negative escalation while the measure's range spanned from 1-9), and the inter-rater reliability for the positive escalation code ($a = .46$) is poor. These factors create significant limitations to the quality and utility of the escalation codes as well as limit the ability to interpret findings; therefore, the escalation codes were omitted from the current research and not explored.

Coding Forgiveness, Partner Type, and Couple

Forgiveness was assessed categorically for all analyses. Injured partners were categorized as having low, medium, or high levels of forgiveness based on which stage of the forgiveness process (i.e., 1, 2, or 3) they scored the highest in on the forgiveness measure administered. These scores were derived from the Forgiveness Inventory, which provided a score for each of the 3 stages. Raw scores were transformed into z-scores, and each individual's highest z-score determined which stage best describes where that participant likely stands in the forgiveness process (see Gordon & Baucom, 2003). For analyses comparing the betrayal and no-betrayal conditions (i.e., hypotheses 1b and 1d), a fourth category of forgiveness was added to include couples who have not experienced a betrayal in their relationship. Thus, the stage of forgiveness variable for those analyses included 4

categories: stage 1 (n = 7), stage 2 (n = 5), stage 3 (n = 10), and a no betrayal condition (n = 12).

For analyses exploring the betrayal condition only, husband and wife scores were recoded into injured and participating partner scores based on who reported being the injured party in the betrayal event which the couple was videotaped discussing. In 16 of the 22 couples in the betrayal condition, both partners reported having been betrayed by his or her spouse. Eleven of these couples discussed the event for which the husband was identified as the injured partner, while the remaining 5 couples discussed the event that injured the wife. Ultimately, injured partners included 13 males and 9 females.

For analyses comparing the two conditions (i.e., betrayal and no-betrayal), dyadic scores for all communication variables and marital satisfaction were created by averaging each dyad's scores together. This approach to comparing couples in different conditions allowed for a higher level of power to be maintained in the analyses since, in this already small sample size, cell size would have been considerably smaller for each stage of forgiveness if injured wives and injured husbands were examined separately. Additionally, since each couple's data are intercorrelated and not independent, past research has used this approach to explore couple effects (Kenny, Kashy, & Cook, 2006).

CHAPTER III

RESULTS

Preliminary analyses were conducted to explore possible demographic differences between groups (see Table A-1). Independent samples t-tests were conducted comparing females in the betrayal condition to females in the no-betrayal condition on various demographic variables including age, years of education, years married, number of previous marriages, yearly income, race, and number of children. Results did not indicate any significant differences in the means of these two groups. Independent samples t-tests also were conducted comparing males in both conditions. Analyses yielded similar results; there were no significant mean differences on the aforementioned demographic variables. Therefore, there was no apparent need to control for demographic variables in analyses comparing these two conditions (i.e., hypotheses 1b and 1d), which was preferable given the limited power of this sample size.

A listing of descriptives and a correlation matrix of pertinent variables explored in the within betrayal group analyses are presented in Tables A-3 and A-4, respectively. Descriptives and correlations of variables explored in the between betrayal and no-betrayal group analyses are presented in Tables A-5 and A-6, respectively. Correlations between the various communication variables as well as correlations to marital satisfaction were all in the expected direction (e.g., negative communication and invalidating behaviors were directly correlated, while negative and positive communication were inversely related, and positive communication was directly related to marital satisfaction). While several associations were statistically significant, others were not. Most notably, validation was not significantly related to marital satisfaction for injured or participating partners or for couples who have not

experienced a betrayal in their marriage. Participating partners' negative and invalidating communication behaviors also were not significantly correlated to their own or to their spouse's level of relationship satisfaction; however, injured partners' negative and invalidating communication behaviors were found to be significantly associated with their own level of satisfaction. Injured partners' validating behaviors were negatively related to the participating partners' invalidating behaviors. Also, invalidating and negative communication behaviors were directly related between partners and between discussion types. Similarly for couples who have not experienced a betrayal, negative and invalidating communication behaviors were significantly and positively related.

The significant correlation between injured and participating partners' marital satisfaction, $r = .86, p < .001$, is noteworthy. A paired samples t-test revealed no significant difference between injured and participating partners' average level of marital satisfaction ($t = -1.41, ns$). Since there was no meaningful difference, only injured partners' level of satisfaction was used as a covariate given that demonstrating one's level of forgiveness is predictive over one's level of satisfaction seemed the most conservative approach.

Furthermore, given the small sample size, lack of significant mean differences, and that injured partners' satisfaction would be controlled for, one could argue that controlling for both partners' marital satisfaction would be overly conservative and unnecessary¹.

Descriptives for marital satisfaction as measured by the satisfaction subscale of the DAS as well as overall marital adjustment measured by the complete DAS are listed by category of forgiveness in Table A-7 for injured partners, participating partners, and couples overall.

¹ Exploratory analyses were conducted controlling for the participating partners' level of marital satisfaction to examine its possible association with the communication behaviors of both partners. Results controlling for participating partners' satisfaction yielded similar results as analyses controlling injured partners' satisfaction.

Results of one-way ANOVA's exploring the mean differences in injured and participating partners' levels of marital satisfaction between the 3 stages of forgiveness is presented in Table A-8. Marital satisfaction for injured partners differed significantly between stages of forgiveness, $F(2,19) = 4.71, p < .05$. A Tukey post-test indicated that injured partners whose ratings are consistent with stage 1 reported significant lower levels of satisfaction than those in stage 3, $p < .05$. Marital satisfaction for participating partners did not significantly differ between the 3 stages of forgiveness. When exploring differences between couples in the no-betrayal condition and those who experienced a betrayal and were categorized into the various stages of the forgiveness process, results of a one-way ANOVA were significant, $F(3,30) = 4.39, p = .01$. Tukey post-test comparisons indicated that couples who did not experience a betrayal in their marriage reported significantly higher levels of marital satisfaction than couples in which the injured partner endorsed low (stage 1) levels of forgiveness, $p < .01$. Means of marital satisfaction for stage 2, stage 3, and the no-betrayal category did not significantly differ.

Differences between stages for all outcome variables followed a similar pattern to that found for marital satisfaction; means for stages 2 and 3 and the no-betrayal condition (when applicable) did not differ greatly (see Tables A-9, A-10, and A-11 for descriptives of the communication outcome variables by category of forgiveness for injured partners, participating partners, and couples, respectively).

Hypothesis 1

The first aim of the current study was to compare the communication behaviors of couples who have experienced a significant betrayal in their marriage to couples who

reported never having experienced a betrayal. Hypothesis 1a explored the association between forgiveness and positive and negative communication behaviors for couples in the betrayal condition. Hypothesis 1b took these analyses a step further and incorporated those couples in the no-betrayal condition. In doing so, the communication behaviors of couples in the no-betrayal condition were directly compared to those couples in each stage of the forgiveness process. Hypotheses 1c and 1d followed a similar pattern predicting validating and invalidating communication behaviors.

Hypothesis 1a: First, analyses examined the role of forgiveness in how couples who have experienced a betrayal communicate with each other both when discussing the betrayal event and when discussing a separate problem area in their relationship. Based on previous research suggesting a linear relationship between forgiveness and various communication behaviors, it was expected that the number of positive communication behaviors would increase and the number of negative communication behaviors would decrease for both partners with each consecutive stage of forgiveness. For these analyses, husband and wife scores were recoded into injured and participating partner scores as described above (i.e., based on who was identified as the injured partner in the betrayal event discussed). The two discussions (i.e., problem discussion and betrayal discussion) were examined separately. Repeated measures analyses were used whenever examining within couple differences to account for the nonindependence of these data. This is an appropriate, widely used approach, recommended when conducting dyadic analyses (Kenny, Kashy, & Cook, 2006). Additionally, General Linear Modeling was used in these analyses, which is appropriate when examining a small sample size (Tabachnick & Fidell, 2001). Type III Sums of Squares were used because the stages of forgiveness cell sizes were unequal (Hill & Lewicki, 2006).

The behaviors of both injured and participating partners were explored within the same analyses to examine possible differences between them as well as to limit the number of overall analyses performed, thereby lessening the possibility for Type I error. Four 2X3 repeated measures ANCOVA's were conducted to explore the possible effects of partner type (i.e., injured or participating partner) and stage of forgiveness (low, medium, high) on communication behaviors, while controlling for injured partner's level of marital satisfaction.

Results examining possible differences in positive communication behaviors across forgiveness stages were non-significant for both discussions (see Table A-12). However, a closer look at the means for each stage of forgiveness indicates that the findings appear to be relatively consistent with what was expected for both discussions (see Table A-9 and A-10); in other words, the mean levels of positive communication behaviors indicate that both injured and participating partners in stage 2 and 3 exhibited a greater amount of positive communication behaviors than individuals categorized as stage 1. Furthermore, with the exception of participating partners in the problem area discussion, it was noted that injured and participating partners categorized as stage 2 were observed exhibiting more positive communication behaviors than partners in stage 3. Although not significantly different, this pattern was unexpected.

Findings examining negative communication behaviors in the problem area discussion indicated a significant main effect for partner type, $F(1,18) = 5.45, p < .05$, and a significant interaction between partner type and marital satisfaction, $F(1,18) = 4.75, p < .05$ (see Table A-13 and Figure B-1). For the betrayal discussion, findings were similar. Results indicated a main effect for partner type, $F(1,18) = 11.93, p < .01$, and a significant interaction between partner type and marital satisfaction, $F(1,18) = 9.72, p < .01$ (see Figure B-2). As in

the case of positive communication behaviors mentioned above, the results did not indicate a significant effect for stage of forgiveness. However, the means for each stage are in the expected direction (see Tables A-9 and A-10); negative communications were higher in stage 1 than in stages 2 or 3 in both discussions.

Again unexpectedly, mean scores for injured and participating partners categorized in stage 2 were higher on average than those of partners in stage 3, though the differences were not statistically significant. Although the main effect for partner should not be interpreted separately from its interaction with marital satisfaction, the mean differences between partners for each stage of forgiveness in each discussion are noteworthy. Injured partners were observed exhibiting more negative communication behaviors than participating partners in both discussions.

Next, the interaction between partner type and the continuous covariate (i.e., marital satisfaction) was explored for both discussions. The parameter estimates indicated that for injured partners only marital satisfaction significantly predicts their negative communication behaviors for the problem area discussion, $B = -.19$, $t = -2.50$, $p < .05$, as well as for the betrayal discussion, $B = -.16$, $t = -2.72$, $p < .05$. In essence, the injured partner's satisfaction with his or her marriage was inversely related to the number of negative communication behaviors he or she exhibited when discussing relationship issues with his or her partner. This effect was not found for the participating partner (see Table A-13).

Post-hoc Analyses Examining Hypothesis 1a: As mentioned above, although stage of forgiveness was not a significant predictor of positive or negative communication behaviors while controlling for the injured partner's level of marital satisfaction, cell means were in the expected direction; those couples in stage 1 of the forgiveness process were observed

exhibiting fewer positive and more negative communication behaviors than those in either stages 2 or 3 (see Tables A-9 and A-10). Taking into account the large amount of variance accounted for by marital satisfaction in the above analyses, and the significant correlation between forgiveness and marital satisfaction, as well as the small size of the current sample and consequent low power, post-hoc analyses were conducted to shed light on the possible effects of stage of forgiveness when its effects are not subsumed by the marital satisfaction construct. In other words, analyses predicting positive and negative communication behaviors were conducted *without* controlling for satisfaction. Four 2X3 repeated measures ANOVA's were conducted to explore the possible effects of partner type (i.e., injured or participating partner) and stage of forgiveness (low, medium, high) on communication behaviors.

Results examining positive communication behaviors in the problem area discussion indicated a significant main effect for stage of forgiveness, $F(2,19) = 3.67, p < .05$ (see Table A-14). A series of planned post-test comparisons were used to explore this effect for injured and participating partners, separately. A one-way ANOVA exploring differences in the positive communication behaviors of injured partners across stages of forgiveness was significant, $F(2,19) = 4.23, p < .05$. Tukey post-test comparisons indicated a significant difference between stage 1 and 2 only, $p < .05$. Results of the one-way ANOVA predicting differences in the positive communication behaviors of participating partners were non-significant. Analyses predicting positive communication behaviors in the betrayal discussion were non-significant (see Table A-14).

Results exploring negative communication behaviors in the problem area discussion demonstrated a trend toward significance for stage of forgiveness, $F(2,19) = 3.27, p = .06$

(see Table A-15). Post-tests exploring this effect were non-significant. Although not statistically significant, the means illustrate that both injured and participating partners in stage 1 exhibited more negative communication behaviors than partners in either stages 2 or 3 of the forgiveness process (see Tables A-9 and A-10). Analyses predicting negative communication behaviors for the betrayal discussion were non-significant (see Table A-15). As noted earlier, although analyses did not produce a main effect for partner type, a closer look at the mean scores for injured and participating partners indicated that injured partners were observed exhibiting more negative communication behaviors than participating partners in both discussions.

Hypothesis 1b: The next step in addressing the first study aim was to examine the role of forgiveness on positive and negative communication behaviors across conditions (i.e., betrayal and no-betrayal groups). In other words, analyses explored how couples who have not experienced a betrayal in their marriage compared to those couples who have and are in various stages of the forgiveness process. To address this question, scores for the problem area discussion only were examined as this is the discussion in which all couples engaged regardless of condition. Dyadic variables were formed by averaging each couple's scores for communication behaviors as well as for marital satisfaction. One-way ANCOVA's with 4 categories, controlling for the couple's average level of marital satisfaction, were conducted to explore the associations between level of forgiveness and condition (i.e., betrayal or no-betrayal) on positive and negative communication behaviors. The 4 categories consisted of low, medium, and high forgiveness, and a level for no-betrayal (i.e., no forgiveness necessary).

Analyses examining positive communication behaviors produced a significant main effect of marital satisfaction, $F(1,28) = 8.49, p < .01$ (see Table A-16). Parameter estimates of this covariate indicated a direct relationship between couples' positive communication behaviors and marital satisfaction, such that an increase in marital satisfaction was related to an increased in observed positive communication behaviors, $B = .16, t = 2.91, p < .01$. Results did not produce an effect for category of forgiveness on positive communication. Similarly, findings for negative communication yielded a significant main effect for marital satisfaction, $F(1,28) = 7.44, p < .01$, but not for category of forgiveness (see Table A-16). Results of the parameter estimates for couple satisfaction indicated an inverse relationship between satisfaction and negative communication behaviors, $B = -.22, t = -2.73, p < .01$. Although stage of forgiveness (i.e., 1, 2, 3, or no-betrayal) was not a statistically significant predictor of couples' positive and negative communication behaviors, mean scores indicate a noticeable difference between those individuals in stage 1 in comparison to stages 2 and 3 and those who have not experienced a betrayal (see Table A-11). In other words, couples in stage 1 exhibited fewer positive and more negative communication behaviors than all other couples.

Post-hoc Analyses Examining Hypothesis 1b: To further explore possible differences in communication behaviors between these two conditions, post-hoc analyses were conducted without the covariate. Two one-way ANOVA's with 4 levels were performed predicting positive and negative communication behaviors (see Table A-17). Results for positive communication behaviors produced a trend toward significance for stage of forgiveness, $F(3,26) = 2.66, p = .07$. Tukey post-tests, albeit non-significant, compared means; although stage of forgiveness (i.e., 1, 2, 3, or no-betrayal) was not statistically

significant, mean scores evidenced a noticeable difference between those individuals in stage 1 in comparison to stages 2 and 3 and those who have not experienced a betrayal.

Interestingly, couples categorized as being in stage 2 were observed exhibiting more positive and fewer negative communication behaviors than all other couples, although differences between stages 2, 3, and the no-betrayal condition were non-significant. Analyses for negative communication behaviors failed to reach significance, though scores followed a similar pattern with couples in stage 1 scoring highest on negative communication than all other couples.

Hypothesis 1c: As in *1a*, the role of forgiveness on validating and invalidating communication behaviors was explored here only for couples who reported having experienced a significant betrayal in their marriage. A series of 2 (partner type) X 3 (stage of forgiveness – 1, 2, 3) ANCOVA's were performed controlling for injured partner's marital satisfaction. Results examining validating behaviors were non-significant for both discussions (see Table A-18).

Findings examining invalidating behaviors in the problem area discussion indicated a significant main effect for partner type, $F(1,18) = 8.60, p < .01$, and a significant interaction between partner type and marital satisfaction, $F(1,18) = 8.47, p < .01$. Results further indicated a trend toward a significant interaction between partner type and level of forgiveness, $F(1,18) = 3.42, p = .06$ (see Table A-19 and Figure B-3).

In the betrayal discussion, there was a significant main effect for partner type, $F(1,18) = 4.45, p < .05$, and a significant interaction between partner type and marital satisfaction, $F(1,18) = 5.16, p < .05$ (see Table A-19 and Figure B-4). The interaction between partner type and level of forgiveness was not significant. Although not significantly different,

participating partners were observed exhibiting more invalidating behaviors than injured partners across all stages of forgiveness while discussing the betrayal event.

Analyses explored these interactions. Findings suggest that marital satisfaction for the injured partner significantly predicts his or her invalidating communication behaviors for the problem area discussion, $B = -.11$, $t = -3.43$, $p < .01$, and trends toward significance for the betrayal discussion, $B = -.07$, $t = -1.95$, $p = .07$. In essence, the injured partner's satisfaction with his or her marriage is inversely related to the number of invalidating communication behaviors he or she exhibits when discussing relationship and betrayal issues with his or her partner.

As power was limited in these analyses (see Table A-19), and the alpha was very close to significance, the interaction trending toward significance between partner type and forgiveness predicting invalidating communication behaviors in the problem area discussion was further decomposed. First, injured and participating partners were examined separately to explore partner type as a possible moderator of stage of forgiveness. Results of 2 one-way ANOVA's produced non-significant findings for injured partners as well as for participating partners. Next, paired-samples t-tests were used to explore differences between participating and injured partners' behaviors within each of the 3 stages of forgiveness to examine if forgiveness might moderate the effect of partner. Results produced non-significant findings for all 3 stages. A closer look at the means in the problem area discussion, however, indicated that injured partners in stages 2 and 3 of the forgiveness process exhibited a larger amount of invalidating behaviors than did their spouses (see Tables A-9 and A-10). However, for couples in stage 1, participating partners were observed exhibiting a notably greater amount of invalidating communication behaviors compared to injured partners.

Post-hoc Analyses Examining Hypothesis 1c: To further understand the association between forgiveness and validating and invalidating behaviors, post-hoc analyses were run without controlling for marital satisfaction. A series of 2X3 ANOVA's examining partner and stage of forgiveness produced non-significant results for validating communication behaviors in both discussions (see Table A-20) and for invalidating communication behaviors in the problem area discussion (see Table A-21). Findings indicated a trend toward significance for stage of forgiveness predicting invalidating communication behaviors for the betrayal discussion, $F(2,19) = 3.07, p = .07$ (see Table A-21). Two one-way ANOVA's explored this trend for each partner separately; however, results were non-significant. Although not statistically significant, a review of mean differences shows that both injured and participating partners in stage 1 exhibited more invalidating communication behaviors than injured and participating partners in stage 3, who were observed exhibiting more invalidating communication behaviors than participating partners categorized as stage 2. As referenced above, while results did not produce an effect for partner type, a closer look at the means for injured and participating partners indicated that participating partners were observed exhibiting more invalidating communication behaviors than injured partners in the betrayal discussion.

Hypothesis 1d: As in hypothesis 1b, one-way ANCOVA's with 4 levels indicating stage of forgiveness and the no-betrayal (i.e., no need to forgive) condition and controlling for the couple's average level marital satisfaction were used to predict validating and invalidating communication behaviors. Results for validating behaviors failed to reach significance (see Table A-16).

Analyses predicting invalidating behaviors, however, indicated a significant effect for marital satisfaction, $F(1,28) = 7.83, p < .01$ (see Table A-16). Parameter estimates indicated that marital satisfaction is inversely related to couples' demonstration of invalidating communication behaviors, $B = -.09, t = -2.80, p < .01$.

Post-hoc Analyses Examining Hypothesis 1d: Post-hoc analyses also were performed analyzing the model without the covariate (i.e., marital satisfaction) to further explore the effects of stage of forgiveness. Two one-way ANOVA's exploring differences in validating and invalidating behaviors by stage of forgiveness produced non-significant findings (see Table A-17).

Although not statistically significant, a closer look at the means reveals that couples categorized as stage 1 exhibited fewer validating and more invalidating behaviors than all other couples. Additionally, couples rated as being in stage 2 were observed exhibiting more validating and fewer invalidating behaviors on average than all other couples. While the first pattern was predicted, the latter was unexpected.

Hypothesis 2

The second aim of this research was (a) to examine if couples who have experienced a betrayal in their marriage communicate differently when discussing the betrayal event compared to when they are discussing a separate problem area in their marriage, and (b) to explore if level of forgiveness plays a role. These two discussion types were reported on separately in previous analyses. Here, they were compared directly to each other to highlight the potential effect of discussion type on one's behavior. It was expected that the negative effects of having experienced a betrayal in one's relationship would be observed regardless

of what relational topic the couple discussed and, in a sense, impact all areas of the couple's functioning. Additionally, it was expected that these effects would be moderated by level of forgiveness. It should be noted that all couples first discussed a problem area in their relationship before having a conversation about the betrayal event. Thus, the reader could reasonably assume that there was no immediate "spill over" effect from the betrayal to the problem area discussion.

Hypothesis 2a: Regarding positive and negative communication behaviors, this study proposed that couples low on forgiveness would exhibit lower positive and higher negative behaviors during both discussions, and couples high on forgiveness would exhibit higher positive and lower negative communication behaviors in both discussions. In essence, it was expected that there would be an effect for discussion type only for couples in stage 2, such that couples would exhibit more positive communication behaviors and fewer negative communication behaviors in the problem area discussion than in the betrayal discussion when unresolved feelings about the betrayal event might be directly activated for both partners.

Analyses included two 2X3X2 ANCOVA's, controlling for injured partner's marital satisfaction. In this model, partner type (i.e., injured or participating partner), level of forgiveness (low, medium, high), and discussion type (problem or betrayal discussion) were explored predicting positive and negative communication behaviors separately.

Results of the analyses of covariance exploring positive communication behaviors were non-significant (see Table A-22). However, results for negative communication behaviors indicated a significant main effect for partner type, $F(1,18) = 8.92, p < .01$, and a significant interaction between partner type and level of marital satisfaction, $F(1,18) = 7.50$,

$p < .05$ (see Table A-23 and Figure B-5). These findings are consistent with results presented in Hypothesis 1a.

Post-hoc Analyses Examining Hypothesis 2a: Post-hoc analyses were performed to explore the effects of forgiveness without controlling for the injured partner's level of marital satisfaction. Analyses included two 2X3X2 ANOVA's for which partner type (i.e., injured or participating partner), level of forgiveness (low, medium, high), and discussion type (problem or betrayal discussion) were examined predicting positive and negative communication behaviors. Results indicated no significant results for positive communication behaviors (see Table A-24). However, there was a significant main effect for stage of forgiveness predicting negative communication behaviors, $F(2,19) = 3.67, p < .05$ (see Table A-25). Analyses presented in the first hypothesis explored this effect and found that in the problem area discussion there was a trend toward a significant mean difference between stages, with stage 1 scoring the highest.

These analyses failed to find an effect for discussion type. However, a closer look at the means reveals a pattern of results which is mostly consistent with what was expected. Namely, in both discussions injured and participating partners categorized as stage 1 were observed exhibiting fewer positive and more negative communication behaviors than injured and participating partners in stage 3. Additionally, differences in communication behaviors for those categorized in stage 2 were observed between discussion types. Injured partners who rated highest in stage 2 exhibited more positive and fewer negative communication behaviors in the problem area discussion than in the betrayal discussion. Participating partners whose spouse rated highest in stage 2 were observed exhibiting more negative communication behaviors in the betrayal discussion than in the problem area discussion.

Additional Post-hoc Analyses Examining Hypothesis 2a: Although the second aim of the current research was to explore the effects of discussion type, the addition of this third factor in analyses examining an already small sample might have further limited the power to detect possible effects. Therefore, additional post-hoc analyses included 2 instead of all 3 factors. First, the effects of partner and discussion type on positive and negative communication behaviors was explored, followed by analyses examining the associations between stages of forgiveness and discussion type in predicting these communication behaviors. Marital satisfaction was not controlled for in these analyses.

2a_i Partner X Discussion: Two 2 (partner) X 2 (discussion) ANOVA's were performed predicting positive and negative communication behaviors separately. Results examining positive communication behaviors indicated a trend toward a significant interaction between partner type and discussion type, $F(1,21) = 3.75, p = .07$ (see Table 26 and Figure 6). A series of paired-samples t-tests were conducted exploring this interaction. Partner type as a possible moderator of the effect of discussion type was examined first. Injured partners' positive communication behaviors in the problem area discussion were compared to their behavior in the betrayal discussion, and results were non-significant. Participating partners' behaviors were also compared across discussions. As these findings were non-significant as well, discussion type as a moderator of the effect of partner was explored next. Injured and participating partners' positive communication behaviors were compared to each other's in the problem area discussion as well as in the betrayal discussion. As results failed to reach significance, it remains inconclusive which factor (i.e., partner or discussion type) is moderating the effect of the other on the demonstration of positive communication behaviors. Although these analyses were non-significant, a closer look at the

means indicated an interesting emerging pattern. When discussing the betrayal event, participating partners evidenced fewer positive communication behaviors than their spouses across all 3 stages (see Tables A-9 and A-10).

Further, analyses predicting negative communication behaviors were non-significant (see Table A-26). However, mean scores indicated that in both discussions injured partners exhibited a greater amount of negative communication behaviors than participating partners (see Tables A-9 and A-10).

2a_{ii} Forgiveness X Discussion: To explore possible effects of forgiveness and discussion type on communication behaviors, injured and participating partners needed to be examined separately. Up until this point, both partners have been included in all analyses. In order to focus more closely on the possible interaction between forgiveness and discussion type, they were examined alone. Thus, four 3X2 ANOVA's were performed examining the effects of level of forgiveness by discussion type predicting positive and negative communication for participating and injured partners separately. Findings are listed in Table A-27.

Results for injured partners predicting positive communication indicated a trend toward a significant effect for stage of forgiveness, $F(2,19) = 3.10, p = .07$. The largest mean difference appeared to be between injured partners categorized as being in stage 1 and those in stage 2. Findings for injured partners predicting negative communication behaviors were significant, $F(2,19) = 4.04, p < .05$. Post-test comparison indicated a significant difference between stage 1 and 2 scores, $p < .05$, such that injured partners categorized as stage 1 were observed exhibiting a greater number of negative communication behaviors than injured partners who rated highest in stage 2. With respect to participating partners, results for

analyses predicting positive communication were not significant. Similarly, results for participating partners predicting negative behaviors also failed to reach significance. These findings are consistent with results of post-hoc analyses presented in the first hypothesis. An effect for discussion type, the variable of interest in this second aim of the current research, was not observed.

Hypothesis 2b: This study proposed that injured and participating partners would become increasingly more validating and less invalidating in each consecutive stage of the forgiveness process. However, an effect for discussion type was not speculated as this portion of this hypothesis is entirely exploratory. As in the first part of this hypothesis, results yielded non-significant effects for and interactions with discussion type and were similar to findings presented in hypothesis 1c. What follows is a presentation of the results of the 2x3x2 analyses of covariance and post-hoc analyses of variance where the effects of partner type, level of forgiveness, and discussion type on validating and invalidating communication behaviors were examined with and without controlling for the injured partner's level of marital satisfaction. Results of post-hoc analyses aimed at increasing power by omitting one of the factors in the analyses and further exploring the possible effect of discussion type are then reported.

Results of the analyses of covariance predicting validating behaviors were non-significant (see Table A-28). However, findings for invalidating behaviors indicated a significant main effect of partner, $F(1,18) = 10.26, p < .01$, and a significant interaction between partner and marital satisfaction, $F(1,18) = 10.91, p < .01$. Also, a significant interaction between partner and stage of forgiveness predicting invalidating communication behaviors was indicated, $F(1,18) = 3.46, p = .05$, which is a robust finding given the

observed power to detect this effect was .57 (see Table A-29 and Figure B-7). A close look at the means for each partner in each discussion type reveals a consistent pattern – during both discussions, injured and participating partners in stages 2 and 3 of the forgiveness process exhibited fewer invalidating communication behaviors than injured and participating partners categorized as stage 1 (see Tables A-9 and A-10). Again, these results are consistent with those explored in hypothesis 1, where each discussion was analyzed separately.

Post-hoc Analyses Examining Hypothesis 2b: Post-hoc analyses explored this model without controlling for marital satisfaction in an attempt to further shed light on the possible role of forgiveness. Analyses included two 2X3X2 ANOVA's for which partner type (i.e., injured or participating partner), level of forgiveness (low, medium, high), and discussion type (problem or betrayal discussion) were explored predicting validating and invalidating communication behaviors. Results indicated no significant results for validating communication behaviors (see Table A-30). However, there was a trend toward a significant main effect for stage of forgiveness predicting invalidating communication behaviors, $F(2,19) = 2.95, p = .08$ (see Table A-31). The markedly low power (.07) to observe a possible 3-way interaction between partner, satisfaction, and discussion type, which could be expected given the disparate findings between the two discussions reported in hypothesis 1c, might have contributed to this null finding. Thus, Type II error might have occurred.

Additional Post-hoc Analyses Examining Hypothesis 2b: To continue exploring discussion type and in an effort to improve power, subsequent analyses included 2 instead of all 3 factors.

2b_i Partner X Discussion: Two 2X2 ANOVA's were performed examining the association between partner type and discussion type on validating and invalidating

behaviors for couples who had experienced a betrayal in their marriage. Results failed to produce significant findings both for injured and participating partners and in both discussions (see Table A-32).

2b_{ii} Forgiveness X Discussion: Four 3X2 ANOVA's were conducted exploring the possible effects of stage of forgiveness by discussion type on the demonstration of validating and invalidating communication behaviors for injured and participating partners separately. For injured partners, results predicting both validating and invalidating behaviors were non-significant. Findings predicting validating and invalidating behaviors for participating partners also were non-significant (see Table A-33).

CHAPTER IV

DISCUSSION

The discovery of a major betrayal can be a devastating experience for a couple and might have far-reaching implications for relationship functioning and stability (e.g., Fincham, Beach, & Davila, 2007; Gordon & Baucom, 1998; Hall & Fincham, 2006), and these impacts likely include how couples communicate. Communication is central to relationship functioning and adjustment (e.g., Markman & Floyd, 1980; Noller & Feeney, 2002; Stanley, Markman, & Whitton, 2002). However, the dynamics of communication in couples who have experienced a significant transgression in their relationship has been under-researched. This is a noteworthy gap in the literature given the centrality of communication in relationships and marital quality (e.g., Markman & Floyd, 1980; Noller & Feeney, 2002; Stanley, Markman, & Whitton, 2002). The purpose of this study was to explore the intersection of betrayal, dyadic communication, and forgiveness. The first aim was to begin identifying how couples who have experienced a betrayal communicate similarly to or differently than those who have not had to absorb the interpersonal trauma often experienced by injured spouses. An additional aim of the current research was to examine using observational methods whether the potential negative effects of having experienced a betrayal extend beyond conversations about the transgression. In other words, are the possible effects of a betrayal on dyadic communication contained within discussions about the transgression, or are other areas of functioning (i.e., discussing a separate problem area in the relationship) affected as well? Furthermore, this study explored whether forgiveness for the participating partner's actions plays a role in a couple interactions. It was expected that having experienced a betrayal in one's relationship would be associated with negative and

unempathic dyadic communication, but that forgiveness would mitigate the degree of negativity in couple interactions. Also, it was expected that couples who experienced a betrayal would communicate differently than those who have not experienced a betrayal. Again, this difference was expected to vary depending upon how much the injured partner has forgiven his or her spouse.

The communication variables of particular interest in this study were: positive and negative affect, communication skills and conflict, positive and negative escalation, validation and invalidation. Positive affect and communication skills were combined to create the positive communication variable, and negative affect and conflict were summed to create the negative communication variable. The escalation variables were excluded from analyses because of limited variability in scores and the low inter-rater reliability score of the positive escalation variable. Validation and invalidation were explored separately from the positive and negative communication variables that are fundamental to dyadic communication, because they were of particular interest as they were hypothesized as a means of communicating empathy, or a lack of empathy, for one's partner and have been less researched than the other communication variables. Additionally, empathy has been implicated in the forgiveness process (e.g., Fincham, Paleari, & Regalia, 2002; Toussaint & Webb, 2005); however, participating partners' empathy for their spouses had been almost entirely unexplored.

Analyses and planned post-test comparisons were run conservatively at first controlling for the injured partner's level of marital satisfaction (or the dyad's average level of satisfaction when applicable). As it became clear that satisfaction was strongly associated with forgiveness in this sample, post-hoc analyses were conducted without this covariate in

an effort to get a closer look at the role of forgiveness and having experienced a betrayal in dyadic communication. To address the second hypothesis, a subsequent step was taken post-hoc to examine a possible effect for discussion type (i.e., a factor was removed from the analyses). In short, a series of post-hoc analyses were conducted and are discussed here, but those results should be interpreted cautiously in light of the finding that satisfaction is related to communication, which is a robust finding both in the current research and in previous literature (e.g., Christensen & Shenk, 1991; Cordova, et al., 1993; Gottman, 1980; Markman & Floyd, 1980; Roberts & Noller, 1998; Schapp, 1984).

The Communication Behaviors of Betrayal Couples

The first aim of the study compared the communication behaviors of couples who experienced a betrayal and were in various stages of the forgiveness process to those who have not experienced a major transgression in their relationship. Analyses first explored how couples in the betrayal condition communicate differently as a function of stage of forgiveness. The two discussions (i.e., general marital problem discussion and betrayal discussion) were explored separately. Participants in the no-betrayal condition then were incorporated into the analyses for the problem area discussion, which is the one discussion all couples experienced.

The data were analyzed conservatively at first by controlling for the injured partner's level of marital satisfaction. Analyses examining both partners' communication behaviors, for couples in which the injured partner's ratings indicated that he or she likely is low, medium, or high in forgiveness, did not evidence any significant differences in positive communication or validating behaviors across stage of forgiveness. This was true for

couples when they were discussing a problem area in their relationship as well as when they were talking about the betrayal event. Finally, although results were not significant, inspection of the means revealed that both injured and participating partners exhibited fewer positive communication behaviors and fewer validating behaviors if the injured partner had endorsed low forgiveness than if he or she had reported forgiveness levels consistent with stage 2 or 3 of the forgiveness process.

The invalidating and negative communication behaviors of injured and participating partners also were explored for differences across the 3 stages of the forgiveness process, while controlling for the injured partner's level of marital satisfaction. Again, an effect for stage of forgiveness was not indicated. However, analyses revealed both a main effect for partner and for satisfaction, which indicated that injured partners who were dissatisfied were significantly more likely to exhibit greater negative behaviors and invalidating behaviors. Participating partners' levels of negative and invalidating behavior remained the same regardless of satisfaction. Furthermore, results indicated a trend toward a significant interaction between partner and stage of forgiveness predicting invalidating communication behaviors in the problem area discussion. However, post-tests exploring this interaction were non-significant.

Taken together, these findings suggest that (a) the injured partners' level of marital satisfaction is related to how they behave toward their spouses when discussing a problematic area in their relationship as well as when discussing the betrayal event, and (b) the more satisfied the injured partner is in his or her marriage, the fewer negative affect and/or conflict-promoting behaviors and unempathic communication he or she exhibits. The fact that satisfaction was indicated for injured partners but not for the participating partners ,

also suggests that (c) the experience of having been betrayed appears to impact how injured partners communicate with their partner but that the betrayal does not seem to have a similar effect on the participating partner. Thus, it appears that unresolved hurt from the betrayal in the context of an unsatisfying marriage, might be associated with greater negative behavior by the injured person. Unfortunately, the direction of causality is unclear.

Further, it is interesting that injured partners' level of satisfaction did not significantly predict his or her display of positive and validating communication behaviors. This could be attributable to the injured partners' ability to maintain some of the positives in their relationship and ability to communicate empathically at times despite displaying more negative affect and/or conflict-provoking behaviors at other times (e.g., while tearful or even irritated, communicating empathy for how difficult it might be for his or her spouse to see him or her in pain). It should be noted that according to the injured partners who reported on how long the process of forgiveness had taken them, it appears that on average injured partners had been engaged in this process for 1-2 years. In other words, injured partners have been coping with this major betrayal in their relationship for a lengthy period of time, all the while continuing to stay in the relationship. In essence, the sample examined in the current research consisted of couples who have stayed together for a substantial amount of time past the occurrence of a significant transgression in their relationship. While the injured partner's average marital satisfaction levels indicated that they are mild to moderately distressed, results indicated that they, nonetheless, are able to display a degree of positive communication in their interactions with their partners. In short, their interactions are not marked only by negative communication and invalidating behaviors, which might have led them to divorce rather than participating in a research study about family relationships.

Post-hoc Analyses Examining the Communication Behaviors of Betrayal Couples: In the aforementioned analyses, injured partner's level of marital satisfaction is accounting for a large portion of the variance in predicting communication behaviors, particularly negative and invalidating communication behaviors. Generally and as referenced above, this finding is expected given satisfaction's strong link to dyadic communication (e.g., Gottman, 1980; Markman & Floyd, 1980; Schapp, 1984). However, it is possible that any effect for forgiveness was being subsumed by the satisfaction construct, particularly since forgiveness and satisfaction were strongly associated in this sample. For these reasons, post-hoc analyses were conducted without controlling for satisfaction in an effort to further explore possible effects of forgiveness, which also might not have been uncovered because of lack of statistical power to detect them. Again, both discussions were examined separately to address the first hypothesis; the discussions are directly compared in the second hypothesis.

The analyses not controlling for satisfaction found that when injured partners were discussing a problem area in their relationship, they tended to exhibit significantly more positive communication behaviors and fewer (though not significantly less) negative communication behaviors if the injured partner had rated highest on the stage 2 or 3 subscales of the Forgiveness Inventory than on the stage 1 subscale. The pattern for participating partners trended in the same direction as well. When couples discussed the betrayal event, the pattern for positive and negative communication behaviors was similar; however, the differences between stages were not statistically significant. The two discussion types were not directly compared in these analyses (see hypothesis 2 for those results); yet, seen here in juxtaposition they seem to suggest that having experienced a betrayal in one's relationship and being in a relationship in which the injured partner has not

forgiven the transgression might be contributing to less desirable communication behaviors between partners. This interpretation should be considered cautiously, both because these data were analyzed less conservatively by not controlling for satisfaction and not all results were significant, and also because the cross-sectional nature of this study does not allow for inferring causality. It might be that the amount of negative communication and invalidation behaviors experienced between partners prevents the injured partner from forgiving his or her spouse rather than the lack of forgiveness contributing to the presence of fewer positives and more negatives in relating.

Further, whereas mean scores for validation were not significant in either discussion, they followed the same pattern observed for positive, negative, and invalidating communication behaviors. Hence, a consistent pattern began to emerge in the data – couples in which the injured partner's ratings were consistent with stage 1 (i.e., low forgiveness) communicated differently than couples in which the injured partner's rating were consistent with being in stage 2 or 3 of the forgiveness process. Moreover, couples in stage 2 and 3 appeared to be communicating very similarly. Typically, couples categorized as stage 2 exhibited slightly more positive and validating behaviors and fewer negative and invalidating communication behaviors. However, these differences were not significant.

The similarity between stage 2 and 3 scores for all the communication behaviors explored is striking and unexpected. This study predicted a difference between these two categories of forgiveness in both discussions and for both partners being observed. These results seem to suggest that a noticeable change occurs in how couples communicate with each other once the injured partner has first absorbed the blow from news of the betrayal and has shifted into trying to understand how and why this heart-wrenching event occurred, and

possibly even trying to understand his or her own contribution to the climate in the marriage prior to the betrayal occurring. Moreover, results hint at the possibility that complete forgiveness of a transgression is not required for there to be meaningful and noticeable changes in couple relating. Findings of the current research suggest that the cognitive, behavioral, and emotional shift that occurs for injured partners between stage 1 and 2 of the forgiveness process, which has been observed and described by the authors of the forgiveness model borrowed in this paper (Gordon & Baucom, 1998; Gordon, Baucom, & Snyder, 2005), is at least linked to observable changes in how couples communicate with each other. In other words, the changes in communication behaviors (i.e., the significant increase in positive communication and decrease in negative communication behaviors with similar, albeit non-significant pattern for validating behaviors and a trend toward a significant pattern for invalidating behaviors), do not require the injured partner to have achieved high or complete forgiveness of his or her spouse, but rather these communication behaviors have been observed in this sample to be occurring much earlier in the process of forgiveness.

To review, findings support that the injured partner's marital satisfaction plays an important role in his or her demonstration of negative communication and invalidating behaviors. While understanding the role of this robust covariate is important, forgoing satisfaction in these analyses allowed for the unveiling of an emerging pattern in how communication behaviors associated with low levels of forgiveness differ from associations to higher levels of forgiveness.

An additional relationship was noticed in the data – the injured and participating partners' negative communication and invalidating behaviors were significantly correlated. Also, mean differences indicated that although not statistically significant, injured partners

tended to exhibit more negative communication behaviors than participating partners in both discussions. However, in the betrayal discussion specifically, participating partners were more invalidating than injured partners. This finding sparks curiosity about the temporal and possibly cyclical relationship between participating partners communicating a lack of empathy and injured partners exhibiting negative behaviors. It might be that the injured partner's nonverbal demonstrations of anger, sadness, and/or disappointment coupled with critical comments directed toward one's partner and perhaps an unwillingness to allow him or her to express himself or herself, is met by the participating partner with disrespect, an unwillingness to empathize with the injured partner's experience, and effort to blame the injured partner for whatever distress he or she is experiencing. This invalidation is responded to with escalated negative communication, and the cycle continues. Alternatively, the cycle might begin with the participating partner failing to validate his or her spouse's legitimate feelings of distress over having been betrayed, and the injured partner responds in an undesirable manner. Nevertheless, this dynamic seems to set the stage for a particularly deleterious behavioral pattern often seen in couples who ultimately divorce – negative affect reciprocity or negative escalation (Gottman, 1979; 1980). In the current research, couples in which the injured partner endorsed low levels of forgiveness were observed demonstrating more negative communication and invalidating behaviors than couples whose injured partner reported higher levels of forgiveness. This finding and the salient correlation between the participating partner's invalidating behaviors and the injured partner's negative communication, suggest that couples early in the forgiveness process may be at greater risk for engaging in this corrosive pattern of relating, and clinicians treating couples who have

experienced a betrayal in their relationship should be mindful to assess for and interrupt this pattern.

Comparing Betrayal Couples to Non-Betrayal Couples

Having taken a close look at how couples who have experienced a major betrayal in their marriage communicate across stages of the forgiveness process as delineated by Gordon and Baucom (1998), the next step toward addressing the first aim of this study was to compare them to couples who have not experienced a betrayal. In order to compare the behaviors of couples who have experienced a betrayal in the marriage to those who have not, dyadic scores were created and only communication behaviors observed in the problem area discussion were compared between these two groups of couples.

Again, the data were first analyzed conservatively controlling for the couple's average level of marital satisfaction. Results found that couples in which the injured partner's ratings were consistent with being in stage 1 of the forgiveness process were significantly less satisfied with their marriage than all other couples participating in this research. Marital satisfaction was related to 3 of the 4 communication variables, such that as the couple's average level of satisfaction increased positive communication also increased, negative communication decreased, and invalidating behaviors decreased for all couples regardless of condition. Satisfaction was not related to couples' demonstration of validating behaviors. With the exception of validation, these results are consistent with previous research linking satisfaction with communication behaviors (e.g., Gottman, 1980; Markman & Floyd, 1980; Schapp, 1984) and satisfaction with forgiveness (Gordon, Hughes, Tomcik, Dixon, & Litzinger, 2009).

What is interesting about the dispersion of scores, is that couples in which the injured partner rated highest in stage 1 of the forgiveness process behaved differently than the other couples examined here. The mean differences between stage 1 and all other categories trended toward significance only for positive communication behaviors; however, scores for negative, validating and invalidating communication behaviors followed a similar pattern. The limited variability in scores for validation and invalidation likely impeded this pattern from reaching significance, and the low power for negative communication might have resulted in Type II error.

Additionally, it is interesting that no significant differences were indicated between means for couples categorized as being in stage 2, stage 3, and those not having experienced a betrayal, and that couples who have not experienced a betrayal consistently scored between those couples in stages 1 and 2. This latter finding should be interpreted with caution given the unequal cell sizes between the stages (e.g., stage 2 was comprised of 5 couples, while the no-betrayal condition consisted of 12 couples) and that the stage 2 and no-betrayal conditions were never found to significantly differ on communication variables. It remains curious, nonetheless, that couples who are in the midst of coping with a major transgression (hypothesized stage 2) might be communicating more constructively and empathically and be exhibiting more positive and less negative affect than couples who did not experience a similar opportunity to improve their relationship and identify weak points that might be improved on by exploring and understanding them. This interpretation of the data is consistent with work by Kelley (1998), who noted that 26% of surveyed couples, who had experienced a betrayal in their relationship and the injured partner was able to forgive the

transgression, reported that the quality of their marriage was greater at the present time in comparison to before the betrayal took place.

Post-hoc Analyses Comparing Betrayal Couples to Non-Betrayal Couples: To further assess the possible effect of stage of forgiveness on couple communication behaviors, analyses did not control for couples' average level of marital satisfaction. As with previous analyses, this effort was made knowing that these results should be interpreted with caution. Results predicting changes in positive communication across the four stages of the forgiveness condition, one of which included the no-betrayal category, trended toward significance in the expected direction. The null findings for negative communication and invalidating behaviors could be related to the fact that all couples were asked to discuss a problem area in their relationship. In other words, all couples spent time talking about a point of tension in the relationship, and it is reasonable to suspect that even if a partner is typically a good listener, empathic, and generally happy, he or she could become emotionally overwhelmed by frustrated or hurt feelings and express them less constructively than usual. Couples in which the injured partner rated high in forgiveness and those who have not experienced a betrayal in the relationship were observed expressing some negative affect, conflict-provoking comments, and invaliding remarks. This finding, along with the finding that high forgiveness and non-betrayal couples are more satisfied in their relationships than couples in which the injured partner rated low in forgiveness, sparks curiosity about what factors might mitigate the link between negative and invalidating communication behaviors and marital satisfaction. Perhaps it is that couples endorsing higher levels of forgiveness (just as couples who reported no history of betrayal) have been able to maintain a certain degree of positivity, good communication skills, and empathy in their relationships while

coping with the discovery and sequelae of a major transgression, all of which might mitigate possible deleterious effects on level of satisfaction. While directionality cannot be implied given the study's design, this argument is consistent with previous literature citing that positive communication behaviors add to marital quality above and beyond the removal of maladaptive communication behaviors (Pasch & Bradbury, 1998). Further, it might be that only certain couples can manage to maintain, or return to, a degree of positivity and largely adaptive communication patterns while weathering the storm of having experienced a major betrayal, because they had good communication skills prior to having experienced the betrayal. Again, since couples' pre-betrayal functioning was not assessed, the directionality of the effect cannot be determined.

Are Betrayal Discussions Unique?

The second aim of the current research was to examine how couples who have experienced a major betrayal in their current marriage communicate when discussing different aspects of their relationship, which included the betrayal event as well as a separate problem area in their relationship (e.g., household chores, parenting issues, in-laws). While the first hypothesis began to explore differences in communication behaviors as a function of partner type, stage of forgiveness, and level of marital satisfaction, the two discussions which each of these couples had were analyzed separately. The effect of discussion type, from which one can begin to make inferences about the possible impact of a betrayal on other areas of relationship functioning, was analyzed next to address the second hypothesis proposed.

Findings showed similar patterns for stage of forgiveness, marital satisfaction, and partner as in analyses that examined the two discussion types separately. This was expected since the same variables were included in these analyses. In predicting couples' invalidating behaviors, a significant interaction also was found between partner and stage of forgiveness. In the problem area discussion, the means indicated that participating partners were much more invalidating than injured partners who rated highest in stage 1 of the forgiveness process, and during the betrayal discussion participating partners were significantly more invalidating than injured partners across all stages of the forgiveness process. Again, these findings are consistent with results presented earlier. However, results did not indicate any significant effects for discussion type, the variable of interest in this second hypothesis. In other words, couples appeared to communicate similarly whether discussing a problem area in their relationship or the major betrayal they reported having experienced in their marriage. The null findings for discussion type suggest that whatever effect the betrayal event has had on a couple likely impacted the general climate of the relationship, thus affecting other areas of their relationship functioning even for injured partners who reported high levels of forgiveness. Since pre-betrayal functioning and communication could not be observed, one is limited in conclusively stating whether it was the experience of the betrayal that changed couples communication, or if it were that couples who were not communicating well were predisposed to suffering a betrayal.

Post-hoc Analyses Examining the Effect of Discussion Type: To examine the data further for differences between discussions, a less conservative approach was taken next by omitting marital satisfaction from the analyses. Findings indicated that couples in which the injured partner was categorized in stage 1 of the forgiveness process exhibited significantly

more negative communication behaviors than couples categorized in stage 2. Interestingly, couples described as being in stage 1 did not significantly differ from couples in stage 3, and stage 3 couples did not differ significantly from stage 2 couples. A similar trend was found for invalidating communication behaviors across stages of the forgiveness process. Again, these results are consistent with findings for hypothesis 1.

Additional post-hoc analyses were conducted to continue investigating an effect of discussion type on the communication behaviors of couples who have experienced a major transgression in their relationship. Findings remained consistent with patterns that already had begun to emerge in this study. Specifically, an effect trending toward significance indicated that injured partners on average evidenced more positive communication behavior than participating partners when discussing the betrayal event than when discussing a separate problem area in their relationship. Although the findings for negative communication and invalidating communication behaviors were non-significant and should be interpreted with caution, two patterns emerged: injured partners were observed enacting more negative behaviors than participating partners in both discussions, and participating partners were more invalidating toward their spouse when discussing the betrayal event regardless of stage of forgiveness. Further, differences between stages of forgiveness explored in the second hypothesis were significant for positive (trend) and negative communication for injured partners.

In summary, the current study has demonstrated that there might be reason to suspect that the experience of a betrayal in one's relationship could impact the quality of both partners' communication with each other and their levels of marital satisfaction. Additionally, negative communication and invalidating behaviors might be contributing to

maladaptive cyclical patterns of communicating for couples, and particularly for couples in which the injured partner endorsed low levels of forgiveness. Moreover, a consistent pattern that emerged was that couples in which injured partners endorsed low levels of forgiveness communicate differently (i.e., fewer positive and validating communication behaviors and more negative and invalidating communication behaviors) overall when compared to other couples.

Limitations

It is important to consider the following limitations in interpreting the above findings. First, the sample size was small, and cell sizes between conditions were unequal. Due to limited power stemming from a small sample size, it is unclear if null findings actually mean that an effect or interaction does not exist or if there was not enough power to detect certain relationships within the data. Nevertheless, some main effects, interactions, and trends were indicated, which speaks to the robustness of these findings and further lends credence to the possibility that Type II error might have occurred in several of the other analyses conducted because of limited power.

Another limitation of the study is its restricted generalizability. The sample is not representative of the general population. On average, participating couples were wealthier, more educated, and the sample was predominately Caucasian. Also, selection biases might have occurred as only a portion of the couples invited to participate in being videotaped having discussions with each other and one of their children actually presented for this phase of data collection. The compensation for participation in the taped discussion was a \$30 gift certificate, which might not have been lucrative enough to entice a larger sample of

participants. Thus, it could be that individuals who value science and have an appreciation for the university's effort to do research were the ones who selected to participate, which might be a likely possibility among well educated individuals who have attended university themselves.

Additionally, couples were invited into a research laboratory setting and instructed to engage in difficult and personal conversations about their relationship while being videotaped. Being observed in an unnatural setting could have inhibited some individuals from behaving as they would if they were at home or somewhere more comfortable and having the same discussions. In essence, the knowledge of being observed can create demand characteristics pulling for individuals to impression manage and ultimately provide researchers with an approximation of their behavior rather than a truly candid cross-section of their functioning. While this approach to observational data collection has its limits, it has its merits as well, which include controlling for some extraneous variables which might further inhibit a couple from fully engaging into a conversation about their relationship (e.g., children or in-laws present in the home while they are discussing). Also, this method is routinely used in marital research, which perhaps indicates that its benefits might outweigh its limitations.

Further, couples in the betrayal condition first discussed a problem area in their relationship before engaging in an interaction regarding the betrayal event. Not counterbalancing these conversations might have implications for interpreting the findings comparing the communication behaviors of injured and participating partners across discussion types. Having already discussed a problem area in their relationship, couples might have entered the betrayal discussion with greater arousal levels causing them to

communicate differently than they would have if they had the betrayal discussion first. Also, participants might have experienced anxiety about being videotaped for the first time engaging in a conversation about a problem in their relationship but, over time, found themselves becoming relatively comfortable with this process. Thus, their earlier communication behaviors might have been affected and not be good representations of how they typically communicate, while later conversations might have benefited from having eliminated the anxiety-induced changes in behavior. While the lack of counterbalancing might suggest a cautious interpretation of the within couple findings, it allowed for certain benefits, nevertheless. First, one of the aims of the current research was to explore whether the experience of a betrayal contributes to a negative climate in the relationship that is associated with less desirable communication behaviors across couple interactions and not limited to whether the betrayal is being discussed. By having the betrayal discussion second, any immediate spill over effects of the betrayal were controlled for, thereby allowing for a clearer picture of how the couple is functioning outside of this arena (i.e., the betrayal). Additionally, couples in both conditions (betrayal and no-betrayal) could be compared directly without having to account for the possible immediate spill over effects of having just engaged in a discussion about the transgression. This is particularly important for those couples in stage 1 of the forgiveness process, since they likely are feeling more negatively charged about the betrayal event; therefore, having discussed the betrayal first could have primed for negative communication and inflated those scores beyond the mean differences already evidenced in the data between couples in which the injured partner endorsed low levels of forgiveness and all other couples.

Also, the combining of injured husbands and wives into a single variable representing injured partners might have implications for how the data should be interpreted, as it eliminates exploring possible gender differences in the sample. It might also minimize noteworthy differences between the genders and ultimately undermine the utility and power of the variable to reliably reflect what it was intended to measure. This limitation is of concern in the current research as Toussaint and Webb (2005) found gender differences for husbands and wives who had been betrayed, which suggested that empathy for the participating partner is more strongly associated with injured husbands forgiving their spouses than with injured wives forgiving the men who betrayed them. In the present study, examining injured husbands and wives separately would have drastically limited cell size and further limited power in what was an already small sample. Future research could improve in this area by simply gathering a larger sample.

Last, a point about reliability related to the observational coding is worth mentioning. Whereas inter-rater reliability was good for the majority of variables used in the current study, one code (i.e., positive escalation) was eliminated entirely because of poor reliability. When coding for positive escalation and its related code, negative escalation, raters did not take advantage of the full breadth of the Likert scale they were using. This might be due to the sample not being severely distressed or being generally well-adjusted. Ultimately, these codes were discarded from the current research. Additionally, the consistent null findings for validating behaviors might be, at least in part, due to a lower reliability score for husbands' validating communication behaviors. In short, while this study produced some interesting findings, it had a variety of limitations, which should be considered when interpreting findings and planning future improvements.

Future Directions

While the current research has its limitations forcing results to be interpreted with caution, it is not without its merits. Certain patterns began to emerge in the data suggesting that couples who have experienced a major transgression in their marriage and scored higher on a forgiveness measure (i.e., with medium to high levels of forgiveness) appeared to communicate very similarly to couples who never have endured such an interpersonally traumatic or challenging experience in their relationship. In the literature, there is clear support for the fact that major betrayals can have deleterious effects on a relationship (e.g., Hall & Fincham, 2006). However, little is known about how forgiveness is associated with both injured and participating partner's communication behaviors, and how their behaviors might compare to couples who have not experienced a betrayal. Findings should be replicated with a larger sample, which also will serve to increase statistical power and ensure that Type II error does not occur. With more power, it would be interesting to explore the components of the composite scores individually. Further, improved reliability of the dyadic codes and more advanced statistics (i.e., Hierarchical Linear Modeling) would allow for the positive and negative escalation dyadic codes to be incorporated into analyses. Additionally, sequential analyses might offer further insight into the relationship between forgiveness and communication, and how they impact each other.

While it is important to understand how couples communicate when they are discussing points of tension in their relationship (e.g., household chores, parenting issues) and how they behave when discussing a betrayal in their life, it would be informative to understand how couples who have experienced a betrayal in their marriage communicate to

each other social support. It could be expected that couples exhibiting higher levels of empathy for each other, regardless of whether the injured partner has forgiven the transgression, might be more effective in communicating support as well.

Due to the cross-sectional nature of this study, information was not available regarding couples' pre-betrayal functioning. Future research examining the effects of betrayal on couple communication would benefit from being able to control for how a dyad was functioning prior to the transgression. Recruiting and monitoring a newlywed sample over time, as well as accounting for any betrayals couples might have experienced prior to getting married, could provide rich data on how couple functioning is affected by the experience of a major betrayal. With this method, a more specific time table of how long it takes an injured partner to forgive, if he or she chooses to, could be assessed as well as how much time is generally spent working through the various stages of the forgiveness process. It would be interesting to explore mediating and moderating variables related to forgiveness and identify risk factors for the occurrence of a betrayal, relationship dissolution, and unforgiveness or negative forgiveness. Previous research has identified a variety of risk factors for marital dissolution and infidelity, but empirical research predicting betrayals in general and forgiveness remains a new frontier.

The field of marital research could benefit from continued investigation regarding how communication skills impact the association between experiencing a betrayal in one's relationship and expressing oneself in a destructive way. In other words, does having good communication skills prior to the betrayal moderate the association between having experienced a betrayal and subsequently exhibiting negative communication behaviors, which could be defined to include invalidating communication as well as conflict-promoting

behaviors. Most couples experience conflict at some point in their relationship. Perhaps what can be learned from this line of research is information about the relative importance of “fighting well” in comparison to “repairing well.” In other words, in predicting marital satisfaction and stability, which has more influence on the relationship, not yelling at one’s partner when angry or not offering a genuine apology for having raised one’s voice?

Summary

The current study sought to explore the associations between having experienced a major betrayal in one’s marriage and the role of forgiveness in predicting communication behaviors of married couples. Couples who reported having experienced a major betrayal in their relationship were observed discussing a problem area in their relationship as well as the betrayal event, and the communication behaviors of both partners were compared. These couples were then compared to couples who have not experienced a betrayal. Throughout this process, the relationship between forgiveness and positive, negative, validating, and invalidating communication behaviors were assessed to offer insight into the effects of betrayal and forgiveness on how couples communicate with each other. Whereas this study had its share of limitations, it also offered some insight into the communication behaviors of couples in which a betrayal has occurred, and identified some patterns and trends worthy of further research. In short, while marital satisfaction clearly plays an integral role in communication behaviors; simply being the injured partner is related to how one communicates with his or her spouse. Additionally, couples in which the injured partner endorsed low levels of forgiveness communicate differently and less adaptively than couples who have never experienced a betrayal or those in which the injured partner endorsed higher

levels of forgiveness. Complete forgiveness was not required for a positive and less-destructive difference to be observed; injured partners who endorsed wanting to understand why the betrayal occurred (i.e., rated highest in stage 2) were observed communicating more adaptively, as were their spouses. Further, couples' behaviors did not differ in any meaningful way as a function of what topic they were discussing, suggesting that the possible deleterious effects of having experienced a betrayal might change the climate of one's entire marriage. Further, this study found that while forgiveness is related to improvements in couple communication, it does not limit negativity and invalidating communication strictly to discussions about the transgression, regardless of if forgiveness has been granted. Future research is necessary to further understand the dynamics of couples who ultimately experience a betrayal in their relationship and how they communicate through the forgiveness process, if they so choose to remain in their marriage.

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APPENDICES

APPENDIX A: TABLES

Table A-1. Demographics by Condition: Betrayal and No-Betrayal.

| | Betrayal Condition (N=22) | | No-Betrayal Condition (N=12) | |
|-----------------------------------|-----------------------------|---------------------------|------------------------------|--------------------------|
| | Husbands M (SD) Range | Wives M (SD) Range | Husbands M (SD) Range | Wives M (SD) Range |
| Age | 43.14 (5.45) 36-57 | 43.09 (5.14) 34-53 | 44.50 (7.10) 35-59 | 41.5 (4.40) 34-50 |
| Years of Education | 16.09 (3.08) 12-26 | 15.43 (2.44) 10-20 | 15.17 (2.08) 11-18 | 14.83 (2.08) 11-18 |
| Number of Children | 2.59 (1.37) 0-7 | 2.68 (1.29) 1-7 | 3.08 (1.93) 2-9 | 3.08 (1.93) 2-9 |
| Years Married | 17.24 (7.92) .10-31 | 17.01 (8.07) .10-31.50 | 15.75 (3.86) 6-22 | 15.92 (3.99) 6-23 |
| Number of Time Married | 1.18 (.39) 1-2 | 1.23 (.53) 1-3 | 1.33 (.65) 1-3 | 1.25 (.62) 1-3 |
| Percent Caucasian | 95.5% | 100% | 91.7% | 75% |
| Combined Yearly Income – M[range] | 75, 000 [50,000-249,999] | | 75, 000 [50,000-249,999] | |

Table A-2. Intraclass Correlations: Cronbach's Alphas for Inter-rater Reliabilities of Individual and Behavioral Codes and Interclass Reliabilities for the Composite Behavioral Codes.

| | Cronbach's alpha |
|----------------------------------|------------------|
| <hr/> | |
| Individual Codes | |
| Couple Positive Escalation | .46 |
| Couples Negative Escalation | .74 |
| Positive Affect – Wife | .76 |
| Positive Affect – Husband | .75 |
| Negative Affect – Wife | .79 |
| Negative Affect – Husband | .77 |
| Communication Skills – Wife | .60 |
| Communication Skills – Husband | .76 |
| Conflict – Wife | .87 |
| Conflict – Husband | .87 |
| Validation – Wife | .72 |
| Validation – Husband | .65 |
| Invalidation – Wife | .78 |
| Invalidation – Husband | .78 |
| | |
| Composite Codes | |
| Positive Communication – Wife | .79 |
| Positive Communication – Husband | .86 |
| Negative Communication – Wife | .90 |
| Negative Communication – Husband | .89 |

Table A-3. Descriptives for Variables Explored in Analyses of the Within-Betrayal Condition.

| | Mean (SD) | Range |
|--|--------------|------------|
| Injured Partner's Marital Satisfaction | 37.36 (8.42) | 19-48 |
| Participating Partner's Marital Satisfaction | 38.69 (6.12) | 21-46 |
| Injured Positive Communication P1 | 9.64 (2.26) | 5.33-14.33 |
| Participating Positive Communication P1 | 9.89 (2.28) | 5.67-13 |
| Injured Positive Communication B | 9.83 (1.98) | 6.67-13.33 |
| Participating Positive Communication B | 9.48 (2.67) | 5.67-13.33 |
| Injured Negative Communication P1 | 7.47 (2.87) | 4.33-15 |
| Participating Negative Communication P1 | 6.95 (2.69) | 3.67-13.67 |
| Injured Negative Communication B | 8.02 (2.36) | 4.33-12.67 |
| Participating Negative Communication B | 7.24 (2.64) | 3.33-13 |
| Injured Validating Behaviors P1 | 2.56 (.85) | 1-4.33 |
| Participating Validating Behaviors P1 | 2.47 (.71) | 1.33-4 |
| Injured Validating Behaviors B | 2.39 (1.02) | 1.33-5.33 |
| Participating Validating Behaviors B | 2.47 (.98) | 1.33-5 |
| Injured Invalidating Behaviors P1 | 2.64 (1.23) | 1-5.33 |
| Participating Invalidating Behaviors P1 | 2.50 (1.33) | 1-6 |
| Injured Invalidating Behaviors B | 2.70 (1.34) | 1-5.33 |
| Participating Invalidating Behaviors B | 2.89 (1.55) | 1.33-6.33 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-4. Correlations for Variables Explored in Analyses of the Within-Betrayal Condition.

| | Injured DSS | Participating DSS | Injured Positive P1 | Participating Positive P1 | Injured Positive B | Participating Positive B | Injured Negative P1 | Participating Negative P1 | Injured Negative B | Participating Negative B |
|-------------------------------|-------------|-------------------|---------------------|---------------------------|--------------------|--------------------------|---------------------|---------------------------|--------------------|--------------------------|
| Injured DSS | - | | | | | | | | | |
| Participating DSS | .86** | - | | | | | | | | |
| Injured Positive P1 | .51* | .38 | - | | | | | | | |
| Participating Positive P1 | .48* | .55** | .67** | - | | | | | | |
| Injured Positive B | .54* | .45* | .86** | .71** | - | | | | | |
| Participating Positive B | .41 | .57** | .62** | .87** | .71** | - | | | | |
| Injured Negative P1 | -.63** | -.54** | -.58** | -.55** | -.56** | -.49* | - | | | |
| Participating Negative P1 | -.34 | -.39 | -.63** | -.75** | -.47* | -.68** | .70** | - | | |
| Injured Negative B | -.66** | -.68** | -.57** | -.54** | -.60** | -.63** | .76** | .65** | - | |
| Participating Negative B | -.19 | -.32 | -.43* | -.45* | -.38 | -.60** | .39 | .74** | .73** | - |
| Injured Validating P1 | .26 | .15 | .83** | .47* | .71** | .47* | -.51* | -.54** | -.43* | -.34 |
| Participating Validating P1 | .27 | .35 | .41 | .71** | .40 | .56** | -.41 | -.55** | -.30 | -.20 |
| Injured Validating B | .27 | .19 | .64** | .37 | .71** | .51* | -.59** | -.45* | -.66** | -.48* |
| Participating Validating B | .16 | .16 | .50* | .52* | .52* | .69** | -.33 | -.55** | -.47* | -.59** |
| Injured Invalidating P1 | -.63** | -.61** | -.44* | -.37 | -.47* | -.53* | .73** | .50* | .77** | .46* |
| Participating Invalidating P1 | -.24 | -.30 | -.46* | -.68** | -.38 | -.62** | .64** | .90** | .58** | .69** |
| Injured Invalidating B | -.55** | -.54** | -.25 | -.43* | -.45* | -.50* | .60** | .39 | .78** | .50* |
| Participating Invalidating B | -.13 | -.23 | -.38 | -.40 | -.31 | -.52* | .44* | .71** | .65** | .87** |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

* = $p < .05$, ** = $p < .01$.

Table A-4. Continued.

| | Injured Validating P1 | Participating Validating P1 | Injured Validating B | Participating Validating B | Injured Invalidating P1 | Participating Invalidating P1 | Injured Invalidating B | Participating Invalidating B |
|----------------------------------|-----------------------------|-----------------------------------|----------------------------|----------------------------------|-------------------------------|-------------------------------------|------------------------------|------------------------------------|
| Injured DSS | | | | | | | | |
| Participating DSS | | | | | | | | |
| Injured Positive P1 | | | | | | | | |
| Participating Positive P1 | | | | | | | | |
| Injured Positive B | | | | | | | | |
| Participating Positive B | | | | | | | | |
| Injured Negative P1 | | | | | | | | |
| Participating Negative P1 | | | | | | | | |
| Injured Negative B | | | | | | | | |
| Participating Negative B | | | | | | | | |
| Injured Validating P1 | - | | | | | | | |
| Participating Validating P1 | .37 | - | | | | | | |
| Injured Validating B | .68** | .14 | - | | | | | |
| Participating Validating B | .48* | .46* | .67** | - | | | | |
| Injured Invalidating P1 | -.46* | -.26 | -.54** | -.35 | - | | | |
| Participating Invalidating P1 | -.41 | -.53* | -.35 | -.53* | .43* | - | | |
| Injured Invalidating B | -.21 | -.39 | -.50* | -.40 | .69** | .47* | - | |
| Participating Invalidating B | -.39 | -.25 | -.44* | -.52* | .51* | .74** | .46* | - |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

* = $p < .05$, ** = $p < .01$.

**Table A-5. Descriptives for Variables Explored in Analyses
Comparing the Betrayal and No-Betrayal Conditions.**

| | Mean (SD) | Range |
|--|--------------|------------|
| Couples Marital Satisfaction – Betrayal | 38.03 (7.02) | 20.5-46.5 |
| Couples Marital Satisfaction – No Betrayal | 42.29 (3.65) | 38-49.5 |
| Couples Positive Communication – Betrayal | 9.77 (2.07) | 5.67-13 |
| Couples Positive Communication – No Betrayal | 10.14 (1.75) | 6.33-13 |
| Couples Negative Communication – Betrayal | 7.21 (2.56) | 4-14.17 |
| Couples Negative Communication – No Betrayal | 6.49 (3.12) | 3.33-13.33 |
| Couples Validating Behaviors – Betrayal | 2.52 (.65) | 1.5-3.5 |
| Couples Validating Behaviors – No Betrayal | 2.43 (.73) | 1.5-4.33 |
| Couples Invalidating Behaviors – Betrayal | 2.57 (1.08) | 1.33-4.83 |
| Couples Invalidating Behaviors – No Betrayal | 2.22 (1.06) | 1-3.83 |

Table A-6. Correlations for Couple Variables Explored in Analyses Comparing the Betrayal and No-Betrayal Conditions.

| Betrayal Condition | DSS | Positive Communication | Negative Communication | Validating Behaviors | Invalidating Behaviors |
|---------------------------|--------|------------------------|------------------------|----------------------|------------------------|
| DSS | - | | | | |
| Positive Communication | .55** | - | | | |
| Negative Communication | -.54** | -.74** | - | | |
| Validating Behaviors | .32 | .80** | -.66** | - | |
| Invalidating Behaviors | -.53* | -.64** | .89** | -.60** | - |

Note. * = $p < .05$, ** = $p < .01$.

| No-Betrayal Condition | DSS | Positive Communication | Negative Communication | Validating Behaviors | Invalidating Behaviors |
|------------------------------|-------|------------------------|------------------------|----------------------|------------------------|
| DSS | - | | | | |
| Positive Communication | .82** | - | | | |
| Negative Communication | -.71* | -.91** | - | | |
| Validating Behaviors | .01 | .40 | -.55 | - | |
| Invalidating Behaviors | -.65* | -.81** | .86** | -.64* | - |

Note. * = $p < .05$, ** = $p < .01$.

Table A-7. Descriptives of Marital Satisfaction (DSS) and Dyadic Adjustment (DAS) by Stage of Forgiveness Across Forgiveness Conditions and Partners.

| | Mean (SD) | Range |
|----------------------------------|----------------|--------------|
| Injured Partner DSS | | |
| Stage 1 | 30.43 (7.93) | 19-42 |
| Stage 2 | 40.80 (4.15) | 37-47 |
| Stage 3 | 40.50 (7.81) | 20-48 |
| Participating Partner DSS | | |
| Stage 1 | 35.54 (5.25) | 27.8-42 |
| Stage 2 | 40.60 (3.51) | 37-45 |
| Stage 3 | 39.95 (7.21) | 21-46 |
| Couples DSS | | |
| Stage 1 | 32.98 (6.28) | 24.5-42 |
| Stage 2 | 40.70 (3.51) | 37-44.5 |
| Stage 3 | 40.23 (7.35) | 20.5-46.5 |
| No-Betrayal | 42.29 (3.65) | 38-49.5 |
| Injured Partner DAS | | |
| Stage 1 | 85.10 (26.04) | 39-121 |
| Stage 2 | 114.10 (11.81) | 106-134.5 |
| Stage 3 | 110.29 (25.34) | 40-129 |
| Participating Partner DAS | | |
| Stage 1 | 99.97 (13.98) | 80.8-121 |
| Stage 2 | 114.00 (5.24) | 109-121 |
| Stage 3 | 115.14 (19.81) | 62.9-134 |
| Couple DAS | | |
| Stage 1 | 92.53 (18.87) | 61.5-121 |
| Stage 2 | 114.05 (7.16) | 107.5-126.25 |
| Stage 3 | 112.72 (22.23) | 51.45-129.5 |
| No-Betrayal | 120.63 (9.67) | 109.5-144 |

Table A-8. Statistics for One-way Analyses of Variance Exploring Mean Differences in Marital Satisfaction by Stage of Forgiveness for Injured Partners, Participating Partners, and Couples.

| | SS | df | MS | <i>F</i> | <i>p</i> |
|-------------------------------|--------|----|--------|----------|----------|
| Injured Partner | 494.08 | 2 | 247.04 | 4.72 | .02 |
| Participating Partner | 103.57 | 2 | 51.79 | 1.44 | .26 |
| Couples including No-Betrayal | 403.12 | 3 | 134.37 | 4.39 | .01 |

Table A-9. Descriptives for Injured Partners' Communication Scores by Stage of Forgiveness in Both Discussions.

| | Stage 1 M (SD) Range | Stage 2 M (SD) Range | Stage 3 M (SD) Range |
|-------------------|----------------------------|----------------------------|----------------------------|
| Positive – P1 | 7.95 (2.36) 5.33-12.33 | 11.13 (2.67) 8-14.33 | 10.07 (1.49) 8-13 |
| Negative – P1 | 9.38 (3.26) 5-15 | 5.87 (1.91) 4.33-9 | 6.93 (2.43) 4.33-11.67 |
| Validating – P1 | 2.29 (1.04) 1-4 | 3.27 (.98) 1.67-4.33 | 2.40 (.41) 2-3 |
| Invalidating – P1 | 3.05 (1.42) 1-4.67 | 2.07 (.60) 1.33-2.67 | 2.63 (1.30) 1-5.33 |
| Positive – B | 8.76 (1.94) 6.67-12.67 | 10.67 (2.48) 6.67-13.33 | 10.17 (1.58) 7.67-12.67 |
| Negative – B | 9.71 (2.23) 5.33-12.33 | 6.40 (1.06) 5-7.67 | 7.63 (2.31) 4.33-12.67 |
| Validating – B | 2.19 (1.02) 1.67-4.33 | 3.00 (1.55) 1.33-5.33 | 2.23 (.63) 1.33-3.67 |
| Invalidating – B | 3.48 (1.55) 1-5.33 | 2.07 (.72) 1-2.67 | 2.47 (1.26) 1.33-4.67 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-10. Descriptives for Participating Partners' Communication Scores by Stage of Forgiveness in Both Discussions.

| | Stage 1 M (SD) Range | Stage 2 M (SD) Range | Stage 3 M (SD) Range |
|-------------------|----------------------------|----------------------------|----------------------------|
| Positive – P1 | 8.48 (2.46) 5.67-12.33 | 10.33 (1.51) 8.67-12 | 10.67 (2.17) 7-13 |
| Negative – P1 | 8.62 (3.78) 4.33-13.67 | 5.73 (1.71) 3.67-8.33 | 6.40 (1.64) 4.33-10 |
| Validating – P1 | 2.10 (.60) 1.33-3 | 2.53 (.51) 2-3 | 2.70 (.81) 1.67-4 |
| Invalidating – P1 | 3.33 (1.70) 1.33-6 | 1.87 (.84) 1.33-3.33 | 2.23 (1.03) 1-4.33 |
| Positive – B | 8.48 (2.36) 6-12.67 | 10.47 (1.54) 8.67-12 | 9.70 (2.64) 5.67-13.33 |
| Negative – B | 8.48 (3.53) 3.33-13 | 6.07 (1.80) 4-8.33 | 6.97 (2.12) 4.33-10 |
| Validating – B | 2.14 (.57) 1.33-3 | 2.93 (1.36) 2-5 | 2.47 (1.00) 1.33-4.33 |
| Invalidating – B | 3.81 (1.90) 1.33-6.33 | 2.27 (1.04) 1.33-3.67 | 2.57 (1.31) 1.33-5 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-11. Descriptives for Couple Communication Scores by Category of Forgiveness for the Problem Area Discussion.

| | Stage 1 M (SD) Range | Stage 2 M (SD) Range | Stage 3 M (SD) Range | No-Betrayal M (SD) Range |
|--------------|----------------------------|----------------------------|----------------------------|--------------------------------|
| Positive | 8.21 (2.08) 5.67-12.33 | 10.73 (1.77) 8.5-13 | 10.37 (1.72) 7.5-13 | 10.14 (1.75) 6.33-13 |
| Negative | 9.00 (3.20) 5.33-14.17 | 5.80 (1.73) 4-8.67 | 6.67 (1.79) 4.83-10 | 6.49 (3.12) 3.33-13.33 |
| Validating | 2.19 (.74) 1.5-3.17 | 2.90 (.67) 1.83-3.5 | 2.55 (.49) 1.83-3.33 | 2.43 (.73) 1.5-4.33 |
| Invalidating | 3.19 (1.35) 1.33-4.83 | 1.97 (.61) 1.5-3 | 2.43 (.90) 1.5-3.67 | 2.22 (1.06) 1-3.83 |

Table A-12. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANCOVA, Controlling for Injured Partner's Marital Satisfaction Predicting Positive Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Problem Area Discussion | | | | | | |
| Partner | 1 | .02 | .01 | .93 | .00 | .05 |
| Partner X Satisfaction | 1 | .04 | .02 | .89 | .00 | .05 |
| Partner X Stage of Forgiveness | 2 | 1.81 | 1.03 | .38 | .10 | .20 |
| Satisfaction | 1 | 15.30 | 2.40 | .14 | .12 | .31 |
| Stage of Forgiveness | 2 | 6.45 | 1.01 | .38 | .10 | .20 |
| Betrayal Discussion | | | | | | |
| Partner | 1 | .01 | .00 | .95 | .00 | .05 |
| Partner X Satisfaction | 1 | .01 | .05 | .83 | .00 | .06 |
| Partner X Stage of Forgiveness | 2 | .06 | .04 | .96 | .00 | .06 |
| Satisfaction | 1 | 22.18 | 3.23 | .09 | .15 | .40 |
| Stage of Forgiveness | 2 | 1.84 | .27 | .77 | .03 | .09 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-13. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANCOVA, Controlling for Injured Partner's Marital Satisfaction Predicting Negative Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | F | p | Partial Eta Square | Observed Power | |
|---|----|-------------|-------|----------|--------------------|---------------------|----------------|
| Problem Area Discussion | | | | | | | |
| Partner | 1 | 11.49 | 5.45 | .03 | .23 | .60 | |
| Partner X Satisfaction* | 1 | 10.01 | 4.75 | .04 | .21 | .54 | |
| Partner X Stage of Forgiveness | 2 | 1.05 | .50 | .62 | .05 | .12 | |
| Satisfaction | 1 | 25.68 | 2.58 | .13 | .13 | .33 | |
| Stage of Forgiveness | 2 | 9.01 | .91 | .42 | .09 | .18 | |
| Betrayal Discussion | | | | | | | |
| Partner | 1 | 15.15 | 11.93 | .00 | .40 | .90 | |
| Partner X Satisfaction* | 1 | 12.34 | 9.72 | .01 | .35 | .84 | |
| Partner X Stage of Forgiveness | 2 | .75 | .59 | .57 | .06 | .13 | |
| Satisfaction | 1 | 11.58 | 1.27 | .27 | .07 | .19 | |
| Stage of Forgiveness | 2 | 9.57 | 1.05 | .37 | .11 | .21 | |
| *Parameter Estimates | | | | | | | |
| | | <i>b</i> | SE | <i>t</i> | <i>p</i> | Partial Eta Squared | Observed Power |
| Partner X Satisfaction – P1 – Injured | | -.19 | .07 | -2.50 | .02 | .26 | .66 |
| Partner X Satisfaction – P1 – Participating | | -.04 | .08 | -.52 | .61 | .02 | .08 |
| Partner X Satisfaction – B – Injured | | -.16 | .06 | -2.72 | .01 | .29 | .73 |
| Partner X Satisfaction – B – Participating | | .00 | .09 | .03 | .98 | .00 | .05 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-14. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANOVA Predicting Positive Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Problem Area Discussion | | | | | | |
| Partner | 1 | .12 | .07 | .79 | .00 | .06 |
| Partner X Stage of Forgiveness | 1 | 1.82 | 1.09 | .36 | .10 | .21 |
| Stage of Forgiveness | 2 | 25.14 | 3.67 | .05 | .28 | .60 |
| Betrayal Discussion | | | | | | |
| Partner | 1 | 1.02 | .66 | .43 | .03 | .12 |
| Partner X Stage of Forgiveness | 2 | .07 | .04 | .96 | .01 | .06 |
| Stage of Forgiveness | 2 | 12.44 | 1.62 | .22 | .15 | .30 |

Table A-15. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANOVA Predicting Negative Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Problem Area Discussion | | | | | | |
| Partner | 1 | 2.30 | .91 | .35 | .05 | .15 |
| Partner X Stage of Forgiveness | 2 | .29 | .12 | .89 | .01 | .07 |
| Stage of Forgiveness | 2 | 35.32 | 3.27 | .06 | .26 | .55 |
| Betrayal Discussion | | | | | | |
| Partner | 1 | 5.66 | 3.05 | .10 | .14 | .38 |
| Partner X Stage of Forgiveness | 2 | .65 | .35 | .71 | .04 | .10 |
| Stage of Forgiveness | 2 | 25.87 | 2.81 | .09 | .23 | .49 |

Table A-16. Results of a One-Way ANCOVA, Controlling for Couple's Marital Satisfaction, Predicting Couple Communication Behaviors in the Problem Area Discussions Across Categories of Forgiveness.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|----------------------------|----------|-------------|----------|----------|--------------------|----------------|
| Positive Satisfaction* | 1 | 22.34 | 8.49 | .01 | .23 | .80 |
| Stage | 3 | 2.08 | .79 | .51 | .08 | .20 |
| Negative Satisfaction* | 1 | 42.83 | 7.44 | .01 | .20 | .75 |
| Stage | 3 | 2.18 | .38 | .77 | .04 | .12 |
| Validating Satisfaction | 1 | .27 | .62 | .44 | .02 | .12 |
| Stage | 3 | .37 | .85 | .48 | .08 | .21 |
| Invalidating Satisfaction* | 1 | 6.85 | 7.83 | .01 | .21 | .77 |
| Stage | 3 | .30 | .34 | .80 | .03 | .11 |
| *Parameter Estimates | <i>b</i> | SE | <i>t</i> | | | |
| Positive | .16 | .05 | 2.91 | | | |
| Negative | -.22 | .08 | -2.73 | | | |
| Invalidating | -.09 | .03 | -2.80 | | | |

Table A-17. Results of a One-Way ANOVA Predicting Couple Communication Behaviors in the Problem Area Discussions Across Categories of Forgiveness.

| | SS | df | MS | <i>F</i> | <i>p</i> |
|--------------|-------|----|-------|----------|----------|
| Positive | 26.23 | 3 | 8.74 | 2.66 | .07 |
| Negative | 39.41 | 3 | 13.14 | 1.88 | .16 |
| Validating | 1.55 | 3 | .52 | 1.18 | .33 |
| Invalidating | 5.63 | 3 | 1.88 | 1.75 | .18 |

Table A-18. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANCOVA, Controlling for Injured Partner's Marital Satisfaction Predicting Validating Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Problem Area Discussion | | | | | | |
| Partner | 1 | .01 | .03 | .86 | .00 | .05 |
| Partner X Satisfaction | 1 | .05 | .15 | .70 | .01 | .07 |
| Partner X Stage of Forgiveness | 2 | .94 | 2.66 | .10 | .23 | .46 |
| Satisfaction | 1 | .34 | .42 | .52 | .02 | .10 |
| Stage of Forgiveness | 2 | .77 | .97 | .40 | .10 | .19 |
| Betrayal Discussion | | | | | | |
| Partner | 1 | .45 | 1.28 | .27 | .07 | .19 |
| Partner X Satisfaction | 1 | .44 | 1.24 | .28 | .06 | .18 |
| Partner X Stage of Forgiveness | 2 | .26 | .73 | .49 | .08 | .16 |
| Satisfaction | 1 | .67 | .40 | .54 | .02 | .09 |
| Stage of Forgiveness | 2 | 1.37 | .82 | .46 | .08 | .17 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-19. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANCOVA, Controlling for Injured Partner's Marital Satisfaction Predicting Invalidating Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power | |
|---|----|-------------|----------|----------|--------------------|---------------------|----------------|
| Problem Area Discussion | | | | | | | |
| Partner | 1 | 6.13 | 8.60 | .01 | .32 | .79 | |
| Partner X Satisfaction* | 1 | 6.04 | 8.47 | .01 | .32 | .79 | |
| Partner X Stage of Forgiveness | 2 | 2.44 | 3.42 | .06 | .28 | .57 | |
| Satisfaction | 1 | 5.32 | 2.80 | .11 | .13 | .35 | |
| Stage of Forgiveness | 2 | 1.14 | .60 | .56 | .06 | .14 | |
| Betrayal Discussion | | | | | | | |
| Partner | 1 | 4.60 | 4.45 | .05 | .20 | .52 | |
| Partner X Satisfaction* | 1 | 5.34 | 5.16 | .04 | .22 | .58 | |
| Partner X Stage of Forgiveness | 2 | 1.26 | 1.22 | .32 | .12 | .23 | |
| Satisfaction | 1 | .93 | .35 | .56 | .02 | .09 | |
| Stage of Forgiveness | 2 | 3.71 | 1.41 | .27 | .14 | .26 | |
| *Parameter Estimates | | | | | | | |
| | | <i>b</i> | SE | <i>t</i> | <i>p</i> | Partial Eta Squared | Observed Power |
| Partner X Satisfaction – P1 – Injured | | -.11 | .03 | -3.43 | .00 | .40 | .90 |
| Partner X Satisfaction – P1 – Participating | | .00 | .04 | .08 | .94 | .00 | .05 |
| Partner X Satisfaction – B – Injured | | -.07 | .04 | -1.95 | .07 | .17 | .45 |
| Partner X Satisfaction – B – Participating | | .03 | .05 | .63 | .53 | .02 | .09 |

Note. P1 = Problem Area Discussion, B = Betrayal Discussion.

Table A-20. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANOVA Predicting Validating Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Problem Area Discussion | | | | | | |
| Partner | 1 | .44 | 1.30 | .27 | .06 | .19 |
| Partner X Stage of Forgiveness | 2 | .92 | 2.71 | .90 | .22 | .47 |
| Stage of Forgiveness | 2 | 1.49 | 1.95 | .17 | .17 | .35 |
| Betrayal Discussion | | | | | | |
| Partner | 1 | .02 | .05 | .83 | .00 | .06 |
| Partner X Stage of Forgiveness | 2 | .11 | .32 | .73 | .03 | .09 |
| Stage of Forgiveness | 2 | 1.99 | 1.22 | .32 | .11 | .24 |

Table A-21. Results of a 2 (Partner) X 3 (Stage of Forgiveness) ANOVA Predicting Invalidating Communication Behaviors in Both Discussions, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Problem Area Discussion | | | | | | |
| Partner | 1 | .11 | .11 | .74 | .01 | .06 |
| Partner X Stage of Forgiveness | 2 | .49 | .49 | .62 | .05 | .12 |
| Stage of Forgiveness | 2 | 4.70 | 2.26 | .13 | .19 | .40 |
| Betrayal Discussion | | | | | | |
| Partner | 1 | .45 | .36 | .56 | .02 | .09 |
| Partner X Stage of Forgiveness | 2 | .06 | .04 | .96 | .01 | .06 |
| Stage of Forgiveness | 2 | 7.78 | 3.07 | .07 | .24 | .52 |

Table A-22. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANCOVA, Controlling for Injured Partner's Marital Satisfaction, Predicting Positive Communication Behaviors.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|-------------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | .00 | .00 | .99 | .00 | .05 |
| Partner X Satisfaction | 1 | .00 | .00 | .97 | .00 | .05 |
| Partner X Stage | 2 | .61 | .21 | .81 | .02 | .08 |
| Discussion | 1 | .37 | .48 | .50 | .03 | .10 |
| Discussion X Satisfaction | 1 | .32 | .41 | .53 | .02 | .09 |
| Discussion X Stage | 2 | 1.50 | 1.94 | .17 | .18 | .35 |
| Partner X Discussion | 1 | .02 | .05 | .83 | .00 | .06 |
| Partner X Discussion X Satisfaction | 1 | .11 | .23 | .64 | .01 | .07 |
| Partner X Discussion X Stage | 2 | 1.26 | 2.59 | .10 | .22 | .45 |
| Satisfaction | 1 | 37.17 | 2.98 | .10 | .14 | .37 |
| Stage | 2 | 6.79 | .55 | .59 | .06 | .13 |

Table A-23. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANCOVA, Controlling for Injured Partner's Marital Satisfaction, Predicting Negative Communication Behaviors.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|-------------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | 26.51 | 8.92 | .01 | .33 | .81 |
| Partner X Satisfaction | 1 | 22.29 | 7.50 | .01 | .29 | .74 |
| Partner X Stage | 2 | 1.78 | .60 | .56 | .06 | .13 |
| Discussion | 1 | .70 | .19 | .67 | .01 | .07 |
| Discussion X Satisfaction | 1 | 1.39 | .38 | .55 | .02 | .09 |
| Discussion X Stage | 2 | .09 | .02 | .98 | .00 | .05 |
| Partner X Discussion | 1 | .13 | .31 | .59 | .02 | .08 |
| Partner X Discussion X Satisfaction | 1 | .06 | .15 | .70 | .01 | .07 |
| Partner X Discussion X Stage | 2 | .01 | .03 | .97 | .00 | .05 |
| Satisfaction | 1 | 35.87 | 2.32 | .15 | .11 | .30 |
| Stage | 2 | 18.57 | 1.20 | .32 | .12 | .23 |

**Table A-24. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANOVA
Predicting Positive Communication Behaviors.**

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | .22 | .08 | .78 | .00 | .06 |
| Partner X Stage | 2 | .67 | .24 | .79 | .03 | .08 |
| Discussion | 1 | .09 | .12 | .74 | .01 | .06 |
| Discussion X Stage | 2 | 1.46 | 1.94 | .17 | .17 | .35 |
| Partner X Discussion | 1 | .92 | 1.97 | .18 | .09 | .27 |
| Partner X Discussion X Stage | 2 | 1.21 | 2.59 | .10 | .21 | .45 |
| Stage | 2 | 36.13 | 2.63 | .10 | .22 | .46 |

Table A-25. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANOVA Predicting Negative Communication Behaviors.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | 7.59 | 1.90 | .18 | .09 | .26 |
| Partner X Stage | 2 | .88 | .22 | .81 | .02 | .08 |
| Discussion | 1 | 3.05 | .87 | .36 | .04 | .14 |
| Discussion X Stage | 2 | .60 | .17 | .85 | .02 | .07 |
| Partner X Discussion | 1 | .37 | .95 | .34 | .05 | .15 |
| Partner X Discussion X Stage | 2 | .06 | .16 | .85 | .02 | .07 |
| Stage | 2 | 60.60 | 3.67 | .05 | .28 | .60 |

Table A-26. Results of a 2 (Partner) X 2 (Discussion) ANOVA Predicting Positive and Negative Communication Behaviors, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|----------------------|----|-------------|----------|----------|--------------------|----------------|
| Positive | | | | | | |
| Partner | 1 | .05 | .02 | .90 | .00 | .05 |
| Partner X Discussion | 1 | .25 | .30 | .59 | .01 | .08 |
| Discussion | 1 | 2.02 | 3.75 | .07 | .15 | .46 |
| Negative | | | | | | |
| Partner | 1 | 9.12 | 2.47 | .13 | .11 | .32 |
| Partner X Discussion | 1 | 3.82 | 1.18 | .29 | .05 | .18 |
| Discussion | 1 | .37 | 1.02 | .32 | .05 | .16 |

Table A-27. Results of a 3 (Stage of Forgiveness) X 2 (Discussion) ANOVA Predicting Positive and Negative Communication Behaviors for Injured and Participating Partners, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|--------------------------|----|-------------|----------|----------|--------------------|----------------|
| Positive – Injured | | | | | | |
| Discussion | 1 | .22 | .36 | .06 | .02 | .09 |
| Discussion X Stage | 2 | 1.23 | 2.00 | .16 | .17 | .36 |
| Stage | 2 | 21.53 | 3.10 | .07 | .25 | .53 |
| Negative – Injured | | | | | | |
| Discussion | 1 | 2.78 | 1.46 | .24 | .07 | .21 |
| Discussion X Stage | 2 | .14 | .07 | .93 | .01 | .06 |
| Stage | 2 | 37.87 | 4.04 | .03 | .30 | .65 |
| Positive – Participating | | | | | | |
| Discussion | 1 | .78 | 1.30 | .27 | .06 | .19 |
| Discussion X Stage | 2 | 1.44 | 2.39 | .12 | .20 | .42 |
| Stage | 2 | 15.27 | 1.60 | .23 | .14 | .30 |
| Negative – Participating | | | | | | |
| Discussion | 1 | .65 | .32 | .58 | .02 | .08 |
| Discussion X Stage | 2 | .52 | .26 | .77 | .03 | .09 |
| Stage | 2 | 23.61 | 2.12 | .15 | .18 | .38 |

Table A-28. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANCOVA, Controlling for Injured Partner's Marital Satisfaction, Predicting Validating Communication Behaviors.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|-------------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | .30 | .55 | .47 | .03 | .11 |
| Partner X Satisfaction | 1 | .40 | .73 | .40 | .04 | .13 |
| Partner X Stage | 2 | .95 | 1.75 | .20 | .16 | .32 |
| Discussion | 1 | .04 | .07 | .79 | .00 | .06 |
| Discussion X Satisfaction | 1 | .03 | .05 | .83 | .00 | .06 |
| Discussion X Stage | 2 | .15 | .24 | .79 | .03 | .08 |
| Partner X Discussion | 1 | .16 | 1.00 | .33 | .05 | .16 |
| Partner X Discussion X Satisfaction | 1 | .09 | .57 | .46 | .03 | .11 |
| Partner X Discussion X Stage | 2 | .25 | 1.54 | .24 | .15 | .28 |
| Satisfaction | 1 | .97 | .53 | .48 | .03 | .11 |
| Stage | 2 | 1.99 | 1.07 | .36 | .11 | .21 |

Table A-29. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANCOVA, Controlling for Injured Partner's Marital Satisfaction, Predicting Invalidating Communication Behaviors.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|-------------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | 10.68 | 10.26 | .01 | .36 | .86 |
| Partner X Satisfaction | 1 | 11.36 | 10.91 | .00 | .38 | .88 |
| Partner X Stage | 2 | 3.60 | 3.46 | .05 | .28 | .57 |
| Discussion | 1 | .53 | 1.15 | .30 | .06 | .17 |
| Discussion X Satisfaction | 1 | .90 | 1.96 | .18 | .10 | .26 |
| Discussion X Stage | 2 | .67 | 1.45 | .26 | .14 | .27 |
| Partner X Discussion | 1 | .06 | .08 | .78 | .00 | .06 |
| Partner X Discussion X Satisfaction | 1 | .01 | .02 | .90 | .00 | .05 |
| Partner X Discussion X Stage | 2 | 1.00 | .14 | .87 | .02 | .07 |
| Satisfaction | 1 | 5.35 | 1.32 | .27 | .07 | .19 |
| Stage | 2 | 4.19 | 1.03 | .38 | .10 | .20 |

**Table A-30. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANOVA
Predicting Validating Communication Behaviors.**

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | .14 | .27 | .61 | .01 | .08 |
| Partner X Stage | 2 | .81 | 1.50 | .25 | .14 | .28 |
| Discussion | 1 | .06 | .10 | .76 | .01 | .06 |
| Discussion X Stage | 2 | .14 | .23 | .80 | .02 | .08 |
| Partner X Discussion | 1 | .31 | 1.99 | .18 | .10 | .27 |
| Partner X Discussion X Stage | 2 | .23 | 1.43 | .26 | .13 | .27 |
| Stage | 2 | 3.34 | 1.85 | .18 | .16 | .34 |

**Table A-31. Results of a 2 (Partner) X 3 (Stage of Forgiveness) X 2 (Discussion) ANOVA
Predicting Invalidating Communication Behaviors.**

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Partner | 1 | .06 | .04 | .85 | .00 | .05 |
| Partner X Stage | 2 | .44 | .28 | .76 | .03 | .09 |
| Discussion | 1 | 1.22 | 2.53 | .13 | .12 | .33 |
| Discussion X Stage | 2 | .28 | .59 | .57 | .06 | .13 |
| Partner X Discussion | 1 | .51 | .76 | .40 | .04 | .13 |
| Partner X Discussion X Stage | 2 | .11 | .16 | .85 | .02 | .07 |
| Stage | 2 | 12.20 | 2.95 | .08 | .24 | .51 |

Table A-32. Results of a 2 (Partner) X 2 (Discussion) ANOVA Predicting Validating and Invalidating Communication Behaviors, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|----------------------|----|-------------|----------|----------|--------------------|----------------|
| Validating | | | | | | |
| Partner | 1 | .00 | .00 | .96 | .00 | .05 |
| Partner X Discussion | 1 | .15 | .28 | .60 | .01 | .08 |
| Discussion | 1 | .15 | .94 | .35 | .04 | .15 |
| Invalidating | | | | | | |
| Partner | 1 | .02 | .01 | .91 | .00 | .05 |
| Partner X Discussion | 1 | 1.14 | 2.45 | .13 | .10 | .32 |
| Discussion | 1 | .61 | .99 | .33 | .05 | .16 |

Table A-33. Results of a 3 (Stage of Forgiveness) X 2 (Discussion) ANOVA Predicting Validating and Invalidating Communication Behaviors for Injured and Participating Partners, Separately.

| | df | Mean Square | <i>F</i> | <i>p</i> | Partial Eta Square | Observed Power |
|------------------------------|----|-------------|----------|----------|--------------------|----------------|
| Validating – Injured | | | | | | |
| Discussion | 1 | .32 | .97 | .34 | .05 | .16 |
| Discussion X Stage | 2 | .02 | .07 | .94 | .01 | .06 |
| Stage | 2 | 2.81 | 2.13 | .15 | .18 | .38 |
| Invalidating – Injured | | | | | | |
| Discussion | 1 | .08 | .15 | .71 | .01 | .07 |
| Discussion X Stage | 2 | .37 | .71 | .51 | .07 | .15 |
| Stage | 2 | 4.42 | 1.70 | .21 | .15 | .31 |
| Validating – Participating | | | | | | |
| Discussion | 1 | .05 | .12 | .73 | .01 | .06 |
| Discussion X Stage | 2 | .34 | .81 | .46 | .08 | .17 |
| Stage | 2 | 1.34 | 1.31 | .29 | .12 | .25 |
| Invalidating – Participating | | | | | | |
| Discussion | 1 | 1.65 | 2.63 | .12 | .12 | .34 |
| Discussion X Stage | 2 | .02 | .03 | .97 | .00 | .05 |
| Stage | 2 | 8.22 | 2.64 | .10 | .22 | .46 |

APPENDIX B: FIGURES

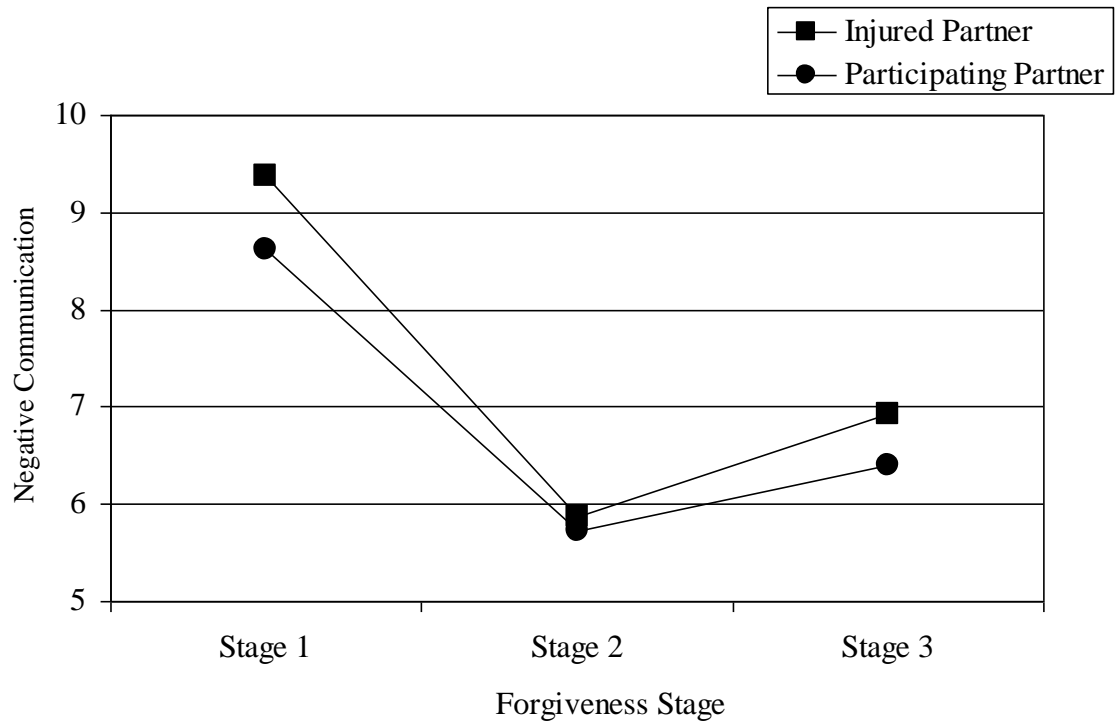


Figure B-1. Forgiveness Stage by Partner for the Problem Area Discussion Predicting Negative Communication Behaviors.

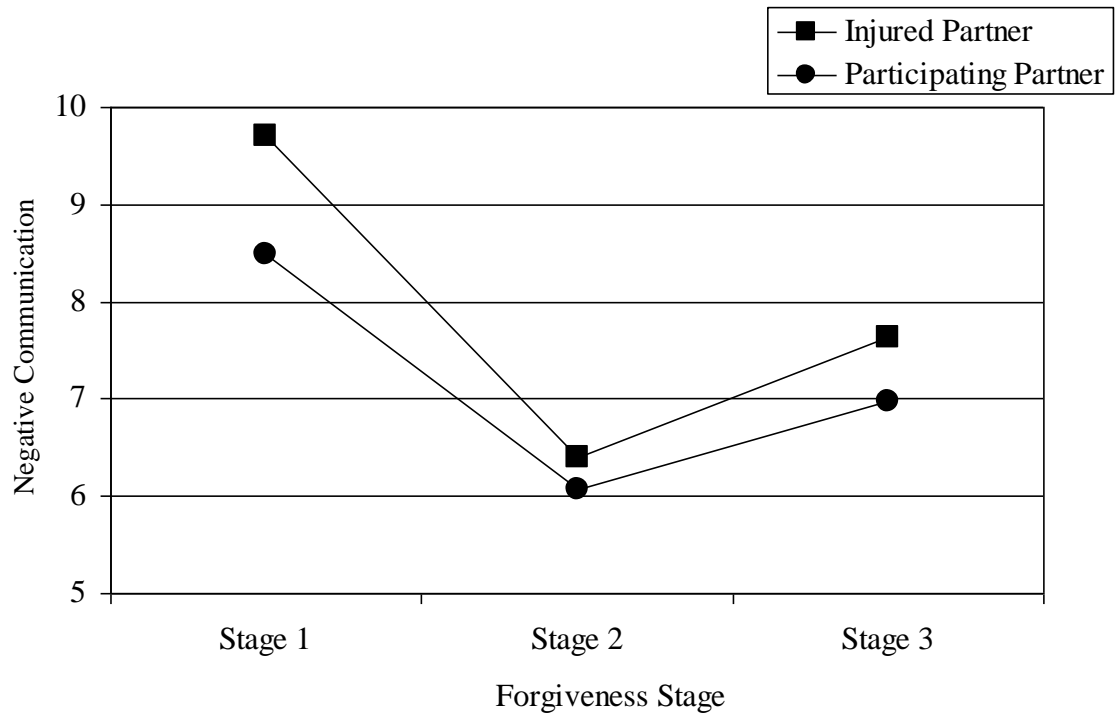


Figure B-2. Forgiveness Stage by Partner for the Betrayal Discussion Predicting Negative Communication Behaviors.

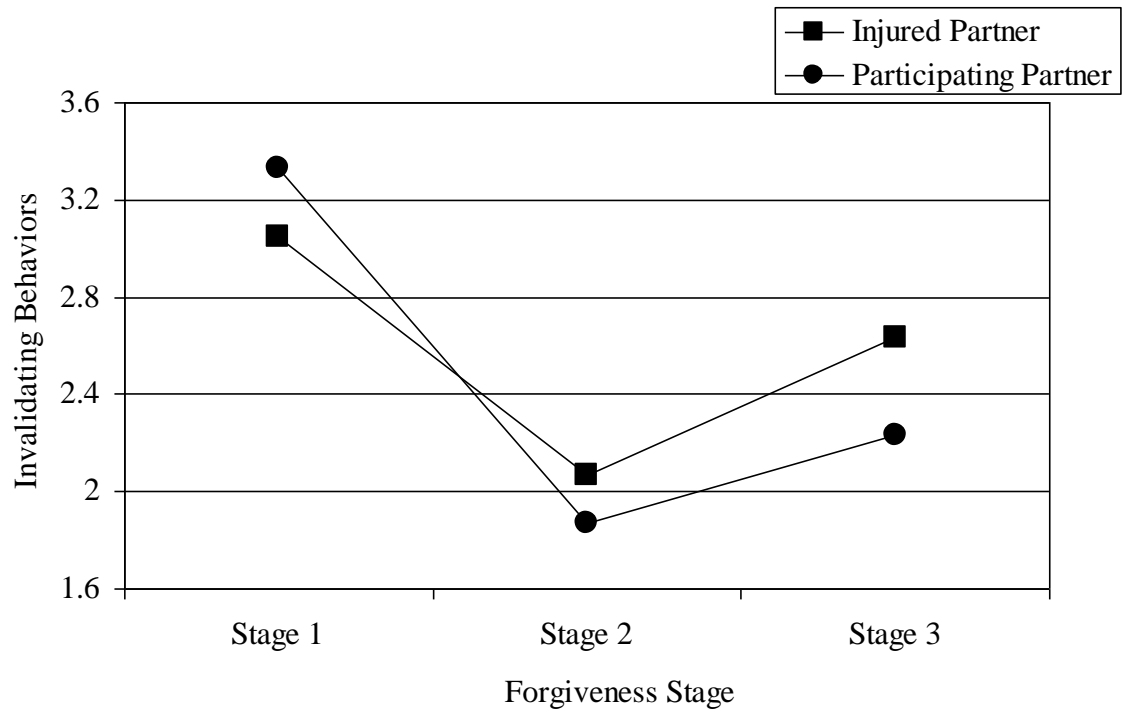


Figure B-3. Forgiveness Stage by Partner for the Problem Area Discussion Predicting Invalidating Communication Behaviors.

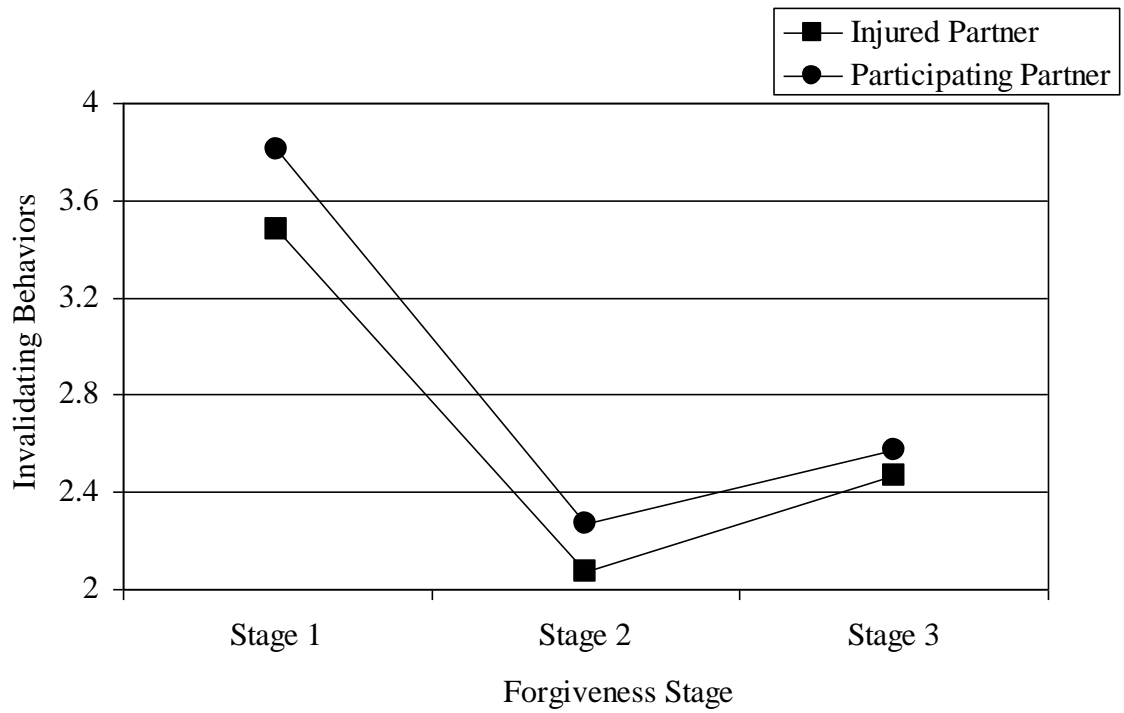


Figure B-4. Forgiveness Stage by Partner for the Betrayal Discussion Predicting Invalidating Communication Behaviors.

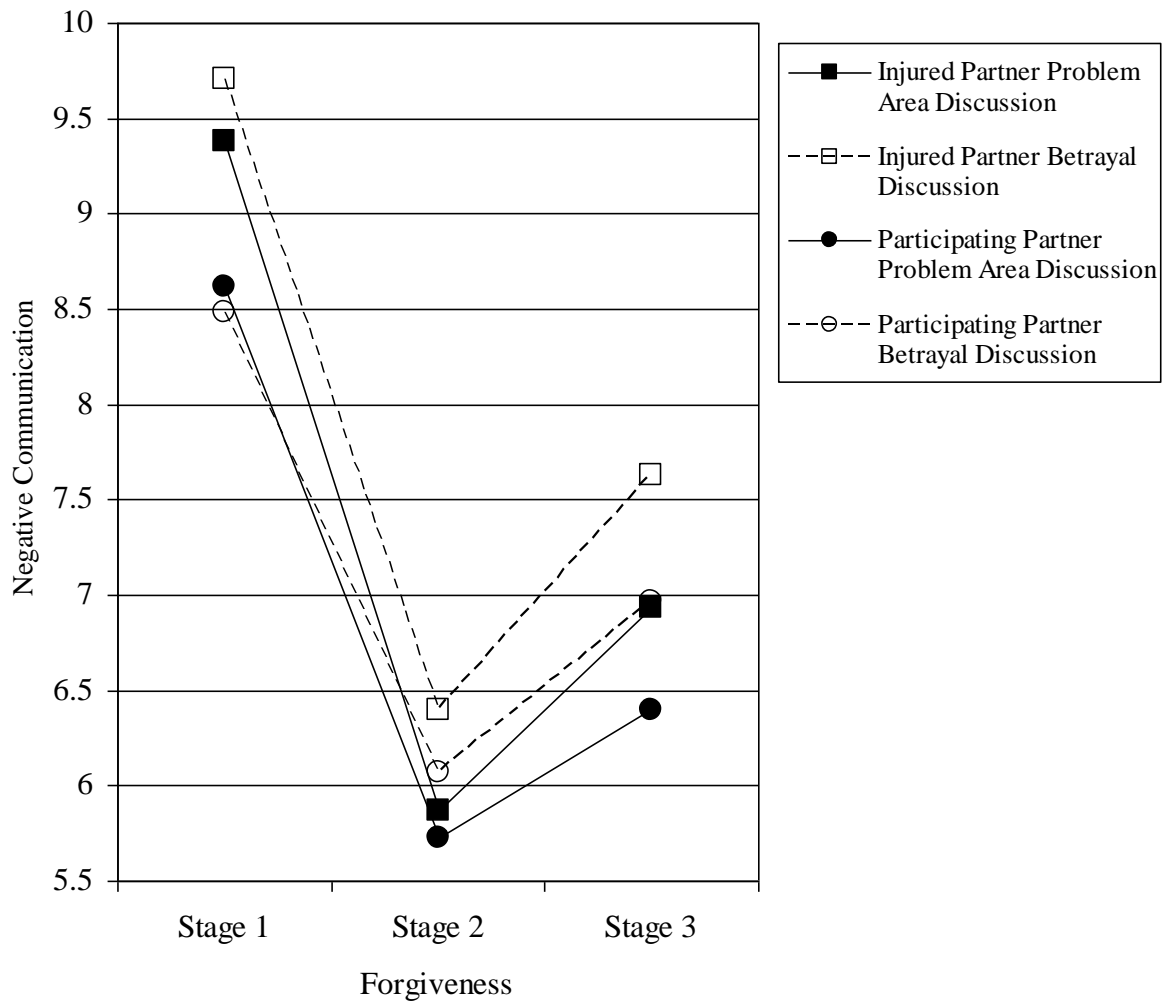


Figure B-5. Partner X Stage of Forgiveness X Discussion Predicting Negative Communication Behaviors.

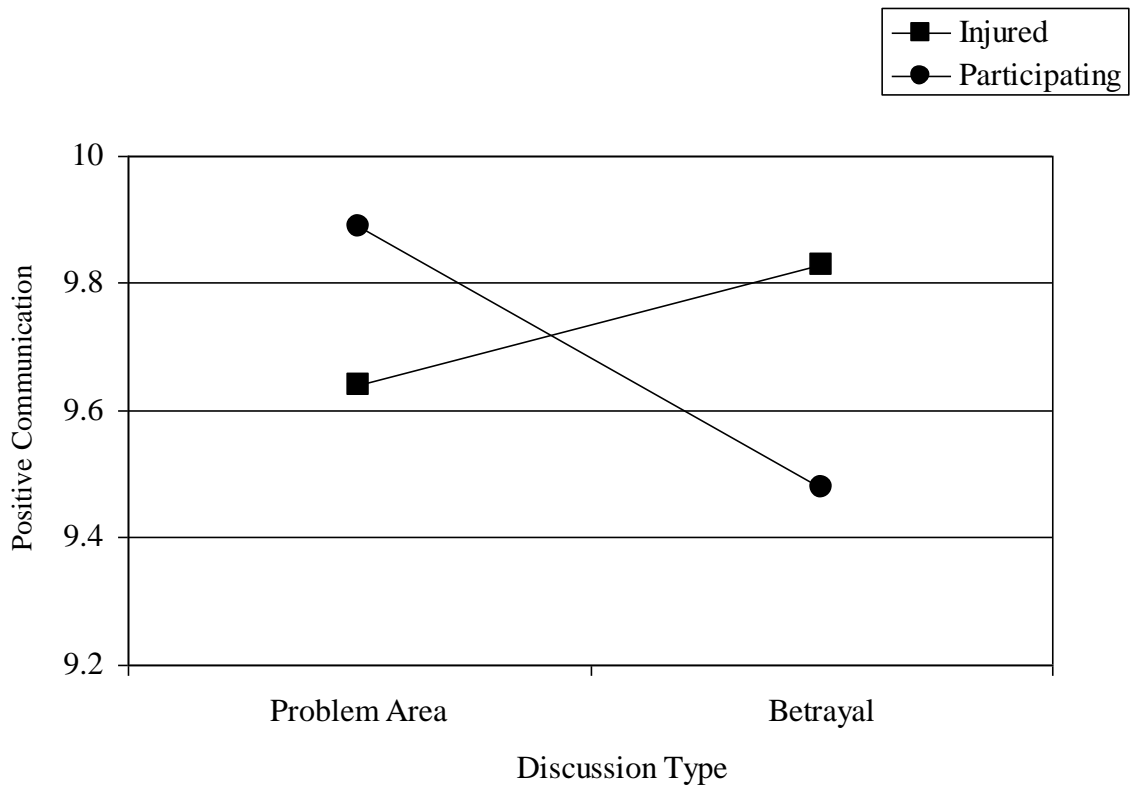


Figure B-6. Partner by Discussion Predicting Positive Communication Behaviors.

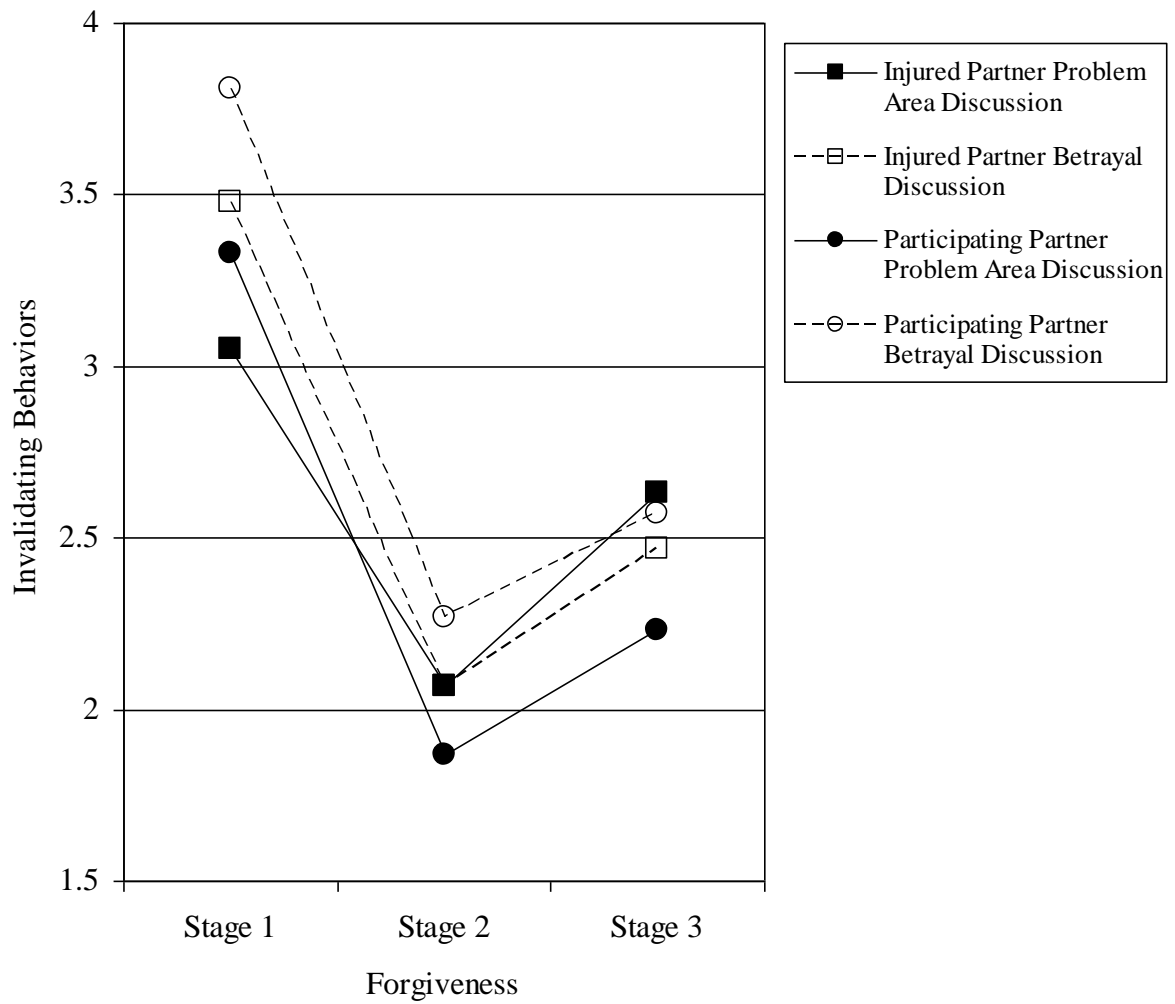


Figure B-7. Partner X Stage of Forgiveness X Discussion Predicting Invalidating Communication Behaviors.

VITA

Nikki N. Frousakis was born in Montebello, California on December 7, 1979. She was raised in Downey, California along with two older brothers, who are also first generation Americans. Her father and mother emigrated from Greece in 1951 and 1962, respectively. Nikki spent almost every summer through high school visiting Greece with her parents and middle brother. She continues to visit Greece as often as she is able.

She attended the University of California, Los Angeles for her undergraduate studies. During the summer following her freshman year as an undeclared major, she decided to pursue psychology with the intentions of becoming a couple therapist. She graduated cum laude and with departmental honors in psychology in June 2002. She continued to work in the research laboratory of Andrew Christensen, Ph.D. at UCLA for an additional year as project coordinator, and she assisted in teaching a research methods course for one quarter.

Nikki was accepted into the Clinical Psychology doctoral program at the University of Tennessee – Knoxville, an APA accredited program, and received the Hilton Smith Fellowship Award. She began her graduate career in August 2003 under the mentorship of Kristina Coop Gordon, Ph.D. While pursuing a doctoral degree, she earned a Master of Arts degree in psychology in November 2006. She also gained extensive clinical experience and taught undergraduate psychology courses. In August 2009, she completed a pre-doctoral internship at an APA accredited program, the Department of Veterans Affairs - Los Angeles Ambulatory Care Center. On December 1, 2009, Nikki successfully defended her dissertation. Her doctoral degree will be conferred officially in May 2010.