



8-2017

Examining the role of therapeutic alliance, split alliance, and gender on couples' relationship satisfaction following a brief couple intervention

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Recommended Citation

Hughes, Jessica Andrea, "Examining the role of therapeutic alliance, split alliance, and gender on couples' relationship satisfaction following a brief couple intervention. " PhD diss., University of Tennessee, 2017.
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I am submitting herewith a dissertation written by Jessica Andrea Hughes entitled "Examining the role of therapeutic alliance, split alliance, and gender on couples' relationship satisfaction following a brief couple intervention." 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.

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Examining the role of therapeutic alliance, split alliance, and gender on couples'
relationship satisfaction following a brief couple intervention

A Dissertation Presented for the
Doctorate of Philosophy
Degree
The University of Tennessee, Knoxville

Jessica Andrea Hughes
August 2017

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Acknowledgements

There is no way to fully express the gratitude I feel for the people who have been a part of my life and provided endless support and encouragement during my time in graduate school. Reflecting on my time here, I feel fortunate and blessed to have a group of amazing people as mentors, colleagues, and friends. First, thank you to my advisor, Dr. Kristina Gordon, for her support, encouragement, guidance, and friendship throughout graduate school. From the very beginning, she has been a tremendously dedicated advisor, providing endless amounts of time and challenges to help me grow and develop as a researcher and clinician. She pushed me to always think critically about any task at hand and modeled how to be a sharp researcher and caring clinician. Her dedication to research, teaching and mentorship, and clinical practice has been an inspiration.

Second, thank you to my dissertation committee members, Drs. Gregory Stuart, Todd Moore, and Spencer Olmstead. Thank you all for your insightful comments and feedback on my research, for challenging me to make novel connections with other literatures, and for volunteering so much of your time to meet with me. I would also like to thank Dr. Patricia Roberson, an honorary committee member, for her encouragement, friendship, and statistical knowledge and assistance.

Third, thank you to the entire Psychology department. I've been fortunate to be in the company of faculty and students who are diverse in their research and clinical interests, and who are always open to have conversations about research, clinical practice, and professional growth. I would like to extend a special thank you to Dr. Leticia Flores for providing me invaluable clinical supervision and guidance over the past two years. Thank you for challenging and encouraging me to think more thoughtfully and purposefully about different theoretical

orientations and how to apply them, and for helping me to find my own voice as a clinician. You have helped me grow tremendously as a clinician and professional and I am forever grateful.

Fourth, I would like to thank my Brown University family, Drs. Van Miller, Brandon Gaudiano, Cynthia Battle, Lauren Weinstock, Lisa Uebelacker, Casey Schofield, and Susan Wenze, as well as my University of Miami family, Drs. Joormann, Yoon, and D'Avanzato for mentoring me and inspiring me to pursue my doctorate in Clinical Psychology. I would not have succeeded in graduate school if it wasn't for your guidance and support in getting me here.

I would also like to thank my former and current lab family, Sarah Gilbert, Maria Rowley, Katie Wischkaemper, Katie Lenger, Alex Khaddouma, Jerika Norona, and DJ Garcia for all their support, friendship, and laughter throughout the years that have allowed me to complete this project. I would also like to thank all of my friends, near and far, who encouraged and supported me throughout this process and incited me to strive towards my goal. Also, thank you to my cohort (Kerry Cannity, Sam Lookatch, Chrissie Mena, Jen Strimpfel, Paul Tullis, and Heather Zapor), lab family, and friends Audrey File and Teri Preddy DiBello for making Knoxville feel like home and for sharing my pains and joys throughout this challenging journey.

Finally, I would like to express my deepest thanks to my parents, Maria Elena and Laurence, my brother, Brent, and my sister Natalie, for their unconditional support, encouragement, and love. I feel extremely blessed to have them in my life and am forever thankful. Thank you for always believing in me. I do not know where I would be without you. I dedicate this project to you.

Abstract

The therapeutic or working alliance is considered to be one of the most important elements in successful individual therapy and many types of couple, marital, and family therapy. The alliance involves a bond that is developed through investment, mutual agreement, and collaboration on tasks and goals. While substantial evidence exists that the therapeutic alliance plays an important role in multiple aspects of therapy outcomes for individuals, far less empirical attention has been given to the alliance in couple therapy. A primary reason for the dearth of research on alliance within a couple context is the complexity of measuring multiple alliances that interact systemically. The importance of the alliance in couple therapy may be viewed through the lens of attachment, psychodynamic, interdependence, and gender theories. These theories are explored as they relate to the importance of alliance, how gender moderates the association between alliance and outcomes, how each partner affects each others behavior and outcome, and how differences in alliance scores between individuals may impact outcome. These questions were examined using data from a brief, two-session intervention for couples, known as the "Relationship Checkup." Structural equation modeling and actor partner interdependence models were used to examine these research questions, while taking into account the non-independence of the data. Results indicated that facilitator report of alliance positively predicted both men and women's report of alliance with the facilitator. Additionally, results indicated that facilitator and women's report of alliance positively predicted relationship satisfaction for men following the intervention, and that women's alliance positively predicted their own relationship satisfaction following the intervention. Results also indicated that couples who disagreed on the strength of the alliance had worse outcomes following the intervention, and split alliance between wives and the facilitator indicated worse outcome for men following the intervention.

Overall, alliance appears to be an important element for successful brief interventions for couples.

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Chapter 1

Introduction

The therapeutic alliance, also referred to as the working alliance, is regarded as one of the most important elements in successful individual therapy and many types of couple, marital, and family therapy (Friedlander et al., 2006). Alliance has been defined as a “relationship between the therapist system and the patient system that pertains to their capacity to mutually invest in, and collaborate on therapy” (Pinsof & Catherall, 1986, pg. 139). The pan-theoretical approach to the study of alliance involves a bond that is developed through investment, mutual agreement, and collaboration on tasks and goals as well as the perception of the therapeutic bond between the therapist and the client (Bordin, 1979; Tryon & Winograd, 2011).

Further, it is widely argued that there are common mechanisms of change across all effective therapeutic approaches that explain the differences between different psychotherapy models, and that these common factors account for much more of the outcome variance among effective psychotherapies than unique aspects of treatment models (Hubble, Duncan, & Miller, 1999; Sprenkle & Blow, 2004; Wampold, 2001). This literature indicates that the therapeutic relationship is a potent common factor and mechanism of change across all therapies (Davis, Lebow, & Sprenkle, 2012; Sprenkle & Blow, 2004). Additionally, early alliance ratings have been found to predict outcome before specific therapy procedures are applied (Lambert & Ogles, 2004; Martin, Garske, & Davis, 2000), which strengthens the argument for common factors in therapy being more important than the treatment model itself. Examination of common factors has indicated that when the alliance is strong, it tends to strengthen the effects of treatment. However, when it is weak, therapy often does not last long enough for interventions to take

effect (Sprenkle et al., 2009). Therefore, monitoring and sustaining the alliance is an especially important task of couple therapy.

There is substantial evidence that the therapeutic alliance plays an important role in multiple aspects of therapy outcomes for individuals (e.g., Horvath, Del Re, Fluckiger & Symonds, 2011; Lambert & Barley, 2002; Norcross & Wampold, 2011). However, the working alliance in couple therapy has received far less empirical attention than has the alliance in individual psychotherapy. Similarly, the role of working alliance in relationship education programs and brief interventions with couples is scant. Therefore, the degree of importance and the magnitude of the role the therapeutic/working alliance plays in couple therapy and couple's relationship education programs is unclear and is in need of further empirical investigation.

One possible reason for the dearth of research on alliance with couples is the complexity of measuring this construct with multiple dyadic relationships. These include the therapist's relationship with each partner, each partner's relationship with the therapist, and the relationship between the members of the couple. Additionally, partners within a couple may vary in the degree to which they form a bond and agree with the therapist about treatment goals and tasks (Pinsof & Catherall, 1986). Further, the relationship with the therapist may be impacted not only by both partners, but the way in which each partner perceives the other in therapy (Friedlander, Escudero, Heatherington, & Diamond, 2011). Therefore, within couple therapy, there are multiple alliances that interact systemically (Pinsof, 1994). There is also evidence that clients and therapists may disagree on the quality of therapeutic alliance (Bedi, Davis, & Williams, 2005) and research findings have not conclusively indicated whether couples' or therapists' perception of alliance is a better predictor of outcomes. Hence, the alliance in couple therapy is complex and multilayered.

To further complicate the study of alliance in couple therapy and couple relationship education programs, gender may play an important role in the working alliance. Overall, therapist gender has not been found to account for significant variance in client outcomes in both individual and couple therapy. However, on a client level, empirical results have been mixed with regards to the impact of partners' gender on the therapeutic alliance and outcome. Some studies have found that only men's alliance scores are significantly associated with relationship outcomes (Brown & O'Leary, 2000; Symonds & Horvath, 2004). A possible explanation for the greater importance of men's alliance scores in predicting outcomes is that men tend to exhibit a greater reluctance to engage in treatment and women display higher commitment to work on the relationship. Women also have an "ability to work toward positive outcomes regardless of the relative strength of their relationship with the therapist" (e.g., Symonds & Horvath, 2004, p. 453). This may be related to differences in socialization of boys and girls. For example, girls are socialized to be more relationally oriented, and to talk about and be mindful of others emotions (Dunn, Bretherton, & Munn, 1987; Fivush, 1992). In addition, women are more likely to be viewed as responsible for relationship maintenance and to provide nurturance and emotional supportiveness (Wellman, 1992; Wethington, McLeod, & Kessler, 1987).

These gender differences are often reflected in communication styles and behaviors. For example, the expression of emotion and self-disclosure are traits more frequently displayed by women (Clark & Reis, 1988; Maccoby & Jacklin, 1974; Acitelli, 1992; Petronio, 2002), while men are less willing to self-disclose around emotion (Snell, Miller, Belk, Garcia-Falconi, & Hernandez-Sanchez, 1989; Fuchs & Thelen, 1988; Zeman & Garber, 1996). It could be that men's engagement in couple therapy or relationship education programs counters traditional gender norms of how they engage in relationships, such as being emotionally restricted and

avoidant of conflict (Mahalik, Good, & Englar-Carlson., 2003). Therefore, men's engagement in therapy may promote women's confidence and trust in the relationship. Additionally, women's perceptions of their partner engaging in treatment, via disclosure in session or participating in tasks and goals, may lead them to feel that their partner is contributing to relationship maintenance and demonstrating increased commitment to the relationship. Consequently, men's alliance may impact outcomes more than women's alliance with the therapist.

However, other studies have found that only women's ratings of alliance were significantly related to outcomes (Knobloch-Fedders, Pincus, & Mann, 2007; Pincus et al., 2008), which may be explained by studies that document that women are more likely to see others' perspectives and judge the thoughts and feelings of others more accurately (Davis, 1980; Davis & Franzoi, 1991; Ickes, Tooke, Stinson, Baker, & Bissonnette, 1988). Some have also stated that alliance is predictive of outcomes only when partners agree with each other about the strength of the alliance, known as allegiance, in relation to their therapist. Theory as to why alliance is predictive of outcomes only if partners agree on the alliance will be explored in more detail. Another concerning issue is that a majority of the studies conducted in this area have examined the role of partner alliance on outcomes by analyzing men's and women's data separately, which fails to take into account the interdependence of the data. Given these mixed findings and overall limited knowledge of the role the alliance plays in couple therapy and relationship education programs, and the lack of sophisticated analytic procedures, further investigation is warranted to better understand how alliance, allegiance, and gender impact couples' outcomes.

The current study will examine the influence of alliance and allegiance on couples' outcomes following a brief intervention program known as the "Relationship Checkup," which was modeled after James Córdova's "Marriage Checkup" (Córdova, Scott, Dorian, Mirgain,

Yaeger, & Groot, 2005). The format of the Marriage Checkup is a brief, two-session intervention for couples. The intervention requires couples to share the innermost details of their intimate relationship in the first session. The facilitator asks partners to divulge information about their relationship history, strengths as a couple, and areas of concern. Additionally, the facilitator goals are to help couples uncover soft emotions, discover themes/patterns of interacting that may be destructive, explore the understandable reasons for engaging in these patterns, and thus build a collaborative set by uniting partners against destructive patterns. Consequently, couples are asked to be vulnerable very quickly during the first time meeting the facilitator. The therapeutic alliance must therefore be built much faster than is required in traditional therapy, so as to facilitate each partner disclosing the vulnerable emotions that are imperative for positive outcomes. Thus, the alliance may be even more important in facilitating change than in other formats of treating couples. Given the brevity of the intervention, it is possible that the alliance has a different impact on relationship outcomes in brief interventions than on longer treatment relationships. This finding may be due to the fact that brief interventions require a more immediate development of a relationship between therapist and partners in order to facilitate work. Additionally, the alliance has more time to vary during longer treatments (e.g., rupture or to develop stronger alliance over time). Therefore, the literature examined will focus on both couple therapy and interventions, as well as relationship education programs which are briefer in nature.

Chapter 2

Literature Review

Therapeutic Alliance and Outcomes

The therapeutic alliance plays an essential role not only in individual therapy, but also in family and couple therapies (Glebova et al., 2011). Whereas many couple therapists have emphasized the importance of the therapeutic alliance to the outcome of treatment (e.g., Gurman, 1982; Hester, 1992; Jacobson & Margolin, 1979; Johnson & Greenberg, 1989; Johnson & Talitman, 1997; Margolin, 1986), the role of alliance in couple therapy is far less understood than its role in individual therapy (Glebova et al., 2011). Additionally, a recent meta-analysis investigated the impact of alliance on mid-treatment improvement, outcomes, and treatment retention in couple and family therapies (Friedlander et al., 2011). The study included seven studies of couple therapies. The study demonstrated that the association between alliance and outcome was moderate, with similar effect sizes to those in individual therapy (Horvath et al., 2011). Some factors that may influence the development of more positive alliances include lower levels of marital distress (Johnson & Talitman, 1997; Knobloch-Fedders et al., 2004) and greater trust in the couple relationship (Johnson & Talitman, 1997). Other influential factors on the development of a positive alliance include attachment and positive feelings toward one another.

One lens from which to view the therapeutic alliance and the degree of importance on therapeutic outcomes is through attachment theory. According to attachment theory, the therapist-client bond is one in which trust and attachment are formed (Bordin, 1994; Horvath & Greenberg, 1994), and this alliance is what keeps the patient in the therapy and enables him to work in therapy (Bowlby, 1975). Additionally, the alliance provides the patient with a temporary attachment figure (Bowlby, 1975), and the therapist provides the patient with a secure base from

which to explore him or herself and the relationships with other individuals in which an affectional bond is shared (Bowlby, 1976). Further, Bowlby postulated that human beings are happiest when they can rely on a trusted person who will provide them with a secure base from which to operate. Moreover, there is substantial evidence from the attachment literature that suggests that the quality of a client's early relational experiences may influence his or her ability to form an alliance in psychotherapy. Researchers have in fact linked insecure attachment styles with poor initial alliances in individual psychotherapy when using retrospective self-reports of attachment (Eames & Roth, 2000; Mallinckrodt, Coble, & Gantt, 1995; Ogrodniczuk, Piper, Joyce, & McCallum, 2000; Satterfield & Lyddon, 1995). This suggests that the quality of an individual's early relational experiences may affect his/her ability to form a therapeutic alliance with therapist and also with his/her significant other, thereby impacting outcomes in therapy. However, if one is able to form a secure attachment in therapy despite previous experiences, this may serve as a corrective emotional experience and the individual may begin to repair other attachment bonds.

Alliance has also been examined in terms of processes such as transference and countertransference (Horvath, et al., 2011). Psychodynamic theory has postulated that positive transference and the relationship between the patient and the therapist may be the primary mediating variable that determines positive therapeutic outcomes. In essence, the relationship between the patient and the therapist is viewed as the "vessel" in which therapy occurs (Pinsof & Catherall, 1986). The ability, therefore, to form an alliance or attachment may be dependent on past attachment experiences and current positive feelings between the therapist and patient. If a bond is then established between therapist and client, the alliance translates into positive therapeutic outcomes.

Similar to couple therapy, couple relationship education programs have been found to successfully enhance relationship communication and prevent relational distress for married and unmarried couples (Carroll & Doherty, 2003; Hawkins, Blanchard, Baldwin, & Fawcett, 2008; Stanley, Amato, Johnson, & Markman, 2006). Couple relationship education programs are important as research has found that the vast majority of people suffering from relationship difficulties do not seek therapeutic help (Johnson, Stanley, Glenn, et al., 2002). Instead, relationship education programs may be more accessible to a greater number of couples in need of help (e.g., Doss, Rhoades, Stanley, & Markman, 2009), and may attract couples across the spectrum of marital functioning and income levels. Although therapeutic alliance is commonly thought to be a necessary factor in couple therapy, the alliance in couple relationship education programs has also received far less attention and it remains unclear whether the alliance is an important facet in couple relationship education programs (Wadsworth & Markman, 2012). The present study examines the role of the therapeutic alliance in predicting outcomes from a brief intervention program known as the “Relationship Checkup,” which was modeled after James Córdova’s “Marriage Checkup” (Córdova et al., 2005). The format of the study is a brief, two-session intervention for couples that requires the alliance to be built fairly rapidly. Given the brevity of the intervention, there is reason to believe that alliance in couple relationship education programs is relevant to the conceptualization of this study.

Only three known studies have examined the alliance in such programs, two of which were conducted with primarily Caucasian middle-class samples (Bourgeois, Sabourin, & Wright, 1990; Owen, Rhoades, Stanley, & Markman, 2011), while the most recent was conducted with racial/ethnic minority couples (Quirk, Owen, Inch, France, & Bergen, 2014). In the first study of its kind, Bourgeois, and colleagues (1990) found that individual ratings of alliance were a

determinant of successful treatment. They also demonstrated that levels of marital distress neither impaired nor facilitated alliance formation. Owen and colleagues (2011) found that couples' relationship outcomes from pre- to post-training varied on the basis of the leader who provided the premarital education training. They also found that participant ratings of working alliance with the leaders predicted change in their relationship satisfaction and confidence, and they also demonstrated higher positive communication when they reported better working alliance with their leader. These findings indicate that leaders are associated with working alliance scores and may support the notion that the relationship that partners form with their relationship education leaders significantly impacts couples' outcomes. The authors postulated that it may be that as participants became more engaged with their leaders, their partners developed more positive sentiments and were more likely to react positively to the information they were learning. In developing positive sentiments toward one another, a secure attachment base may be formed. A secure base may allow partners to take risks in being vulnerable about their emotions in order to increase intimacy. Additionally, having a secure base from which to explore relationship difficulties may reduce the anxiety and avoidance of relationship problems. In turn, creating a stronger attachment may lead to partners being better able to work through relationship conflicts, which would improve relationship satisfaction. In fact, research has demonstrated that individuals with a secure attachment style report higher levels of satisfaction, intimacy, trust, and commitment in their relationships (Simpson, 1990).

Similarly, Quirk and colleagues (2014) found that higher quality alliances with the leaders were related to more positive communication and greater levels of dedication and fewer negative communication behavior for racially and ethnically diverse couples immediately following completion of the intervention. Taken together, all three studies indicate that a positive

working alliance is related to a positive change in relationship satisfaction and communication. However, all three studies only assessed for participants' ratings of working alliance. Owen and colleagues (2011) stated this is a limitation of studies examining the role of alliance in couple education programs, and that it is possible that the leaders' perception of the working alliance could provide further insight into the relational aspects of the alliance. A reason for this may be the process of transference and counter-transference. If the therapist has positive feelings towards the couple, this could translate into the couples' perception of a positive bond. Conversely, an individual having positive feelings toward the therapist can translate into their partner having positive feelings toward the therapist and the therapist feeling positively toward the couple. These positive feelings may then lead to a secure attachment between the therapist and partners, which provides a secure base from which to address conflict. Attachment theory underscores the importance of the secure base as it provides a sense of emotional security for individuals to explore vulnerable thoughts and feelings. In couple therapy, exploring these vulnerable thoughts and feelings is necessary to address couples conflict and to promote acceptance and change. Therefore, without a secure base from which to explore these vulnerable emotions, couple therapy may be less successful. In fostering the relationship and positive feelings, the couple can form a deeper bond or attachment with the therapist, which may translate into deeper attachment within the couple because they are able to explore vulnerabilities in an emotionally secure way, which in turn could enhance intimacy within the couple. Additionally, modeling a secure attachment for the partners may aid in partners establishing a secure attachment. However, the therapist may have positive feelings toward one partner and not another, and/or one partner may have positive feelings toward the therapist while the other does not. This in turn could rupture the alliance or decrease the attachment with the therapist as well

as between partners. A consequence of this rupture may be that partners do not feel that they have a secure base from which to explore the relationship, or to be vulnerable in disclosing thoughts and feelings. This may also lead to partners not taking risks to improve the relationship. Therefore, it is important to examine the perception of the alliance from the therapists' and couples' perspective and whether varying levels of positive alliance affects outcomes in treatment. Elucidating these links may lead to a greater understanding of how alliance affects relationship outcomes.

Perspectives on the Therapeutic Alliance

As stated above, a limitation of the research to date is the lack of studies that assess for both couple and therapists' perspectives of the alliance. There is evidence that therapeutic alliance may be perceived differently by clients and therapists in individual therapy (Bedi, Davis, & Williams, 2005). For example, results of a meta-analysis examining the association between working alliance and various outcomes of individual therapy demonstrated that the client's assessment of the alliance is more predictive of treatment outcomes than that of the therapist's report (Horvath & Bedi, 2002; Horvath & Symonds, 1991). In another meta-analysis on individual treatment, results indicated that client's views of the alliance remained stable throughout the course of treatment, as compared with those of the therapists that indicated variability over time (Martin, Garske, & Davis, 2000).

Similarly, few studies have examined whether couples' and therapists' perspectives on the alliance are similar and whether the therapists' or the couples' view of alliance is more predictive of outcomes. There is some empirical evidence that the correlation between alliance and outcome is weaker for clients than for therapists in couple therapy (Symonds & Horvath, 2004). For example, Symonds and Horvath (2004) investigated whether the couple's or the

therapist's perception of alliance better predicted treatment outcomes, and found that clients' perception of alliance was not indicative of positive therapeutic outcomes. However, the therapists' rating of alliance did predict outcomes.

Research conducted in the context of individual therapy suggested that the clients' perspective of the alliance is predictive of outcomes while therapists' perspective does not. However, as described above, the limited research examining these links in couple therapy suggests the opposite. A possible explanation for these conflicting findings is that the therapeutic relationship between a couple and therapist is more complex and multidimensional than that of an individual and a therapist. It is possible that one partner may benefit more from therapy while the other does not, thereby indicating null improvement. Some have indicated that the alliance is predictive of outcomes when each partner is in agreement about the therapeutic relationship (Symonds & Horvath, 2004; Glebova et al., 2011; Friedlander et al., 2011). Again, attachment theory may help explain the importance of agreement about the alliance, such that partners may not feel secure to explore difficulties and vulnerabilities if they do not view the alliance with the therapist similarly. For example, if one partner does not feel a strong alliance with the therapist, they may not feel safe to disclose vulnerable emotions or to explore difficulties in the relationship. This could negatively impact progress in the relationship if one partner is not open or does not feel safe to explore the relationship. Given the mixed findings of whether the alliance as rated by therapists or couples predicts outcomes, further investigation is needed to elucidate these links. In elucidating these links, we may begin to better understand how alliance impacts relationship outcomes. Some also have suggested that perception of the therapeutic alliance and effect on outcomes may vary by gender (Bourgeois et al., 1990; Symonds & Horvath, 2004; Glebova et al., 2011).

Associations Among Gender, Alliance, and Outcome

Partners Gender. Previous studies indicated that the influences of the therapeutic alliance on outcomes in couple therapy and relationship education programs vary by gender (e.g. Bourgeois et al., 1990; Knobloch-Fedders et al., 2007; Symonds and Horvath, 2004; Glebova et al., 2011). However, there is little agreement about how the alliance is associated with outcomes for men versus for women since empirical results have been mixed. Some studies have found that men's alliance scores significantly predicted relationship outcomes while women's alliance scores did not (Brown & O'Leary, 2000; Bourgeois, Sabourin, & Wright, 1990; Glebova et al., 2011; Symonds & Horvath, 2004). This finding was true regardless of the therapist's gender. Further, other studies have found that women's ratings of alliance were significantly related to outcomes while men's alliance were not (Knobloch-Fedders, Pinosof, & Mann, 2007; Pinosof et al., 2008; Quinn et al., 1997). On the other hand, another study found no significant gender differences for the association between the alliance and outcomes such that both men's and women's own alliance with therapists were similarly associated with reported relationship adjustment and relationship confidence (Quirk et al., 2014). Thus, whereas client gender may play a part in the alliance process, it remains unclear how.

A possible explanation of the lack of consistency across study findings is the use of unsophisticated versus sophisticated analytic methods (analyzing genders separately versus together in multilevel models). Despite inconsistency across studies, it is plausible to expect gender differences in the association between alliance and outcomes. Because women tend to seek couple counseling and are generally more relationally oriented, it is possible that women may benefit more from perceiving a positive therapeutic relationship between their partner and the therapist. As stated above, this may be explained by traditional gender norms. Men's

engagement in therapy or relationship education programs counters traditional gender norms of how they have been socialized to engage in relationships. Because men are expected to restrict emotions and avoid conflict, a positive alliance between men and therapists' may indicate that men are engaged in treatment by working on tasks and goals and collaborating in treatment. Women may therefore feel safer in the relationship and form a stronger attachment with their partner, leading to improved relationship outcomes. Therefore, the alliance may be a positive indicator of relationship outcomes for men and for women who perceive a positive alliance in their partner, above and beyond their own alliance with the therapist. Further research is warranted given the inconsistency of these findings.

Actor Partner Effects. Alliance in couple therapy and relationship education programs are complex, as the way in which each partner experiences the alliance can influence their own relationship outcomes as well as their partner's outcomes, commonly known as actor-partner effects (Kenny, Kashy, & Cook, 2006). Interdependence theory helps to explain the interactions between partners (Kelley, 1979; Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). According to interdependence theory, individuals emit and influence behaviors in each other's presence. These interactions yield outcomes for individuals in the form of rewards and costs (i.e., pleasure, gratification, distress). Interdependence theory implies that individuals in a close relationship influence each other's experiences and need each other to obtain rewards (i.e., affection, emotional closeness, sexual fulfillment). For example, it is possible that when one partner of a couple feels aligned with the therapist and becomes more engaged in the program, he or she may be more likely to benefit from the therapy. The interaction in this case can be viewed as the interaction between one partner and the therapist, where the outcome of engaging in this interaction yields a reward (i.e., improved relationship satisfaction). Additionally, according to

interdependence theory, partners' outcomes may become intertwined over the course of an extended interaction (Rusbult & Buunk, 1993), such as therapy. In these situations, the positive experiences of one partner may become rewarding for the other. This process may then increase his or her own perceived relationship quality (actor effect) and his or her partner's perceived relationship quality (partner effect). An example of a partner effect is that as one individual becomes more engaged in the treatment process, their partner may react positively and benefit more from the interventions.

In the context of couple therapy, Knobloch-Fedders and colleagues (2007) found that men's alliance with the therapist and the women's perception of their partners' alliance with the therapist were stronger predictors of improvement of relationship satisfaction than women's own alliance with the therapist. Consistent with interdependence theory, it is possible that when women perceive their partner as being engaged in therapy, they feel more satisfied because their partner is fulfilling an important need (i.e., engaging in therapy in order to improve the relationship). Because women tend to engage in more relationship maintenance and demonstrate higher commitment to work on the relationship (Rusbult & Buunk, 1993), men's engagement in therapy may lead to women feeling that men are committed to the relationship and are contributing to maintaining the relationship. The investment model of commitment further elucidates this notion; it extends interdependence theory by claiming that dependence between partners is represented and experienced as feelings of commitment (Rusbult & Buunk, 1993). Therefore, women may feel more attached and better able to depend on their partner if they demonstrate a positive alliance with the therapist. Additionally, men's engagement in therapy may also reduce the burden women carry in engaging in maintenance behaviors regularly by becoming invested in also engaging in these behaviors. Further, men's positive alliance with the

therapist may indicate that men are not adhering to traditional gender norms, in that they may become less avoidant of conflict and of disclosure of emotion, to which women may react positively, as they are more relationally oriented.

Similarly, Glebova and colleagues (2007) found that husbands' perception of the alliance accounted for change in satisfaction for both partners. However, wives' perception of the alliance did not significantly predict change in their own satisfaction. Results also indicated that change in satisfaction for wives was influenced by husbands' perception of the alliance to a greater magnitude than wives' own perceptions of the alliance. Taken together, these results may indicate that women react more positively to their partner becoming engaged in therapy and benefit more from the therapy when they perceive men as having a positive alliance with the therapist. A possible explanation presented by Owen and colleagues (2011) for this phenomena that is consistent with interdependence theory, is that women are more likely to seek services and discuss relationship issues than men, indicating that they may be more committed to the enrichment of the relationship (Anker et al., 2010; Gottman, Carrere, Swanson, & Coan, 2000). Therefore, as stated above, when women perceive that men are actively engaged in therapy as observed through a positive therapeutic alliance, they may feel that men are committed or invested in the relationship and therefore benefit from the experience.

In the context of couples' relationship education programs, the aforementioned study conducted by Quirk and colleagues (2014) found a significant partner effect, wherein men and women's positive communication quality was associated with their partner's alliance with the relationship education leader. Bourgeois and colleagues (1990) found that men's alliance with the relationship education leaders had a positive association with their partner's ratings of dedication and positive communication. However, women's alliance scores were not

significantly related to men's relationship functioning. This may indicate that alliance may be a more powerful determinant of therapeutic success for men than women (Bougeois et al., 1990). One possible reason for this is that since women tend to initiate treatment, men do not benefit equally from perceiving that the woman is actively engaged in therapy. Men may need further positive interactions that yield a reward or fill other needs in order for positive therapeutic relationships to impact their relationship functioning.

Split Alliance and Outcomes

Whereas there is a general consensus that the influences of the therapeutic alliance on outcome in couple therapy and relationship education programs vary by gender, some have indicated that the agreement on alliance among partners, commonly referred to as allegiance, is as important, or more so, than gender effects. However, a limited body of research has examined allegiance among couples' ratings of alliance and the effect on outcomes. The results from a previous study conducted by Symonds and Horvath (2004) suggested that alliance was predictive of outcomes only when partners agreed with each other about the strength of the alliance, in relation to their therapist. This finding was replicated by Friedlander and colleagues (2011). Research also indicated that when couples are split in their alliance with the therapist, the outcome is less favorable (Horvath et al., 2011). Less evidence is available, however, for the agreement between the couple and therapist and the effect on relationship outcomes. The degree of agreement or disagreement between the couple and therapist has been hypothesized to impact the outcome of therapy, however, research support for this hypothesis is limited (Pinsof & Catherall, 1986; Symonds & Horvath, 2004). Based on what is known from attachment theory, it is plausible that if partners and therapists disagree on the strength of the alliance, a secure attachment may not be present and partners may not feel secure to explore the problems in the

relationship. Therefore, we might expect that disagreement between the partners and the therapist would lead to worse outcomes as the couple may not be engaged in working on the relationship. These hypotheses must be further investigated empirically to elucidate whether allegiance between the couple and therapist impacts relationship outcomes.

Current Study

Given the literature presented above, there are numerous questions regarding the relationship between therapeutic alliance and outcomes that warrant further investigation. First, the alliance in couple therapy has received far less attention than alliance in individual therapy. It remains unclear whether the alliance is an important facet in couple therapy. Further, few studies have examined whether couples' and therapists' perspective on alliance are similar and whether the therapists' or the couples' view of alliance is more strongly associated with outcomes. There is some empirical evidence that the correlation between alliance and outcome is weaker for clients than for therapists in couple therapy (Symonds & Horvath, 2004). Additionally, studies conducted to date indicate that the influences of the therapeutic alliance on outcomes in couple therapy and relationship education programs vary by gender. However, these results have been inconsistent about how alliance is associated with outcomes for men compared to women. Additionally, the literature suggests that agreement between partners on how they view the alliance with therapist may impact couples' outcomes (Symonds & Horvath, 2004). However, research in this area remains limited. Finally, a concerning issue is that a majority of the studies conducted in this area have failed to account for the interdependence of partner alliance ratings on outcome as men's' and women's' data have been analyzed separately, warranting further research with sophisticated analytic procedures.

The present study aims to address these limitations and extend on prior studies that have evaluated the association between therapeutic alliance and couples' outcomes, which will be measured at several time points in this study. The current study used a brief intervention program known as "the Relationship Checkup," which was modeled after James Córdova's "The Marriage Checkup." The Relationship Checkup format has been found to be effective at attracting and treating at-risk couples (Córdova, Warren, & Gee, 2001; Córdova et al., 2005), and follow-up studies have confirmed improvements across a range of relationship health outcomes (Gee, Scott, Castellani, & Córdova, 2002; Córdova, et al., 2005). These studies have yet to examine the effect of alliance on outcomes. Alliance appears to be an important variable that predicts therapeutic outcome in both individual and couple therapy and merits further investigation.

A possible reason that the therapeutic alliance is of particular importance is that it may serve as a "vessel" in which therapy occurs. It is this vessel that may allow an individual to work through difficulties and to be open to change. Additionally, per attachment theory, it is important for a therapist and individual to create a secure attachment so that the individual can explore and work on these difficulties in a safe environment. If a strong attachment or bond is established, the alliance translates into positive therapeutic outcomes. Without a positive therapeutic alliance, positive change may not occur as partners may not feel secure enough to explore vulnerabilities.

Further, there are multiple alliances that interact systemically in couple therapy and there is evidence that partners may disagree with each other and with the therapist on the quality of therapeutic alliance. Therefore, it is important to take the entire system (each partner and therapist) into account when exploring the effect of the alliance on outcomes. Interdependence theory explains this further and states that individuals enact and influence behaviors in each

other's presence, implying that individuals in a close relationship influence each other's experiences and need each other to obtain rewards (i.e., relationship satisfaction). For example, it is possible that when one partner of a couple feels aligned to the therapist and becomes more engaged in the program, he or she may be more likely to benefit from the therapy on a measured outcome (e.g., increased intimacy or relationship satisfaction). However, partners' outcomes may become intertwined over the course of therapy. In these situations, the positive experiences of one partner may become rewarding for the other. This process may then increase his or her own perceived relationship quality (actor effect) and his or her partner's perceived relationship quality (partner effect). In order to address this interdependence in dyadic data analysis, researchers commonly use actor partner interdependence models to examine the influence of one person's behavior on his/her own outcomes (the *actor* effects) as well as the effects of his/her behavior on his/her partner's outcomes (the *partner* effect). Doing so will elucidate how multiple interacting alliances and potential gender differences predict outcomes.

Hypotheses

Based on the literature described above, the first aim is to examine whether (a) facilitators' perceived alliance predicts couples' perceived alliance. Therefore, I hypothesize that, 1) facilitators' perceived alliance, measured following the feedback session, will positively predict both partners' perceived alliance, measured at one-month follow-up (see Figure 1),

The second aim is to examine the effect of the alliance on outcomes and whether there are partner gender effects on outcomes. Using an actor partner interdependence model (APIM; Kenny, 1996), I hypothesize that 2a) both men's and women's alliance will predict their own and their partner's change in satisfaction at one-month follow-up (see Figure 2). Additionally, 2b) women's actor effect will be smaller than men's partner effect on women, such that men's

alliance will predict satisfaction for women above and beyond women's own report of alliance. I will then add facilitators' alliance to the model to examine whether facilitator alliance predicts men and women's outcomes. I hypothesize that 3) facilitators' perceived alliance will positively predict both partners' change in relationship satisfaction at one-month follow-up above and beyond partners reported alliance, while controlling for baseline satisfaction (see Figure 3).

The third and final aim of the study is to examine whether (a) agreement on the alliance between the facilitator and the couple is predictive of outcome and (b) agreement between partners on the alliance is predictive of outcome. Therefore, I hypothesize that 4) disagreement or split alliance between partners and facilitator perceived alliance will negatively predict men and women's relationship satisfaction at one-month follow-up (see Figure 4) and 5) disagreement between partners will negatively predict change in relationship satisfaction at one-month follow-up (see Figure 5).

Chapter 3

Materials and Methods

Participants

A total of 298 cohabitating different sex couples and 10 facilitators participated in the study. Partners were not eligible to enroll in the intervention if they were under 18 years of age, and if they reported moderate to severe intimate partner violence (e.g., punching with fists, using a knife, hitting with something hard, etc.) in the last 12 months as assessed at the initial screening. As part of the larger study, individuals were hired to be facilitators. In order to be eligible for the position, individuals needed to have a bachelor's degree or higher in a mental health field. At any given time in the study, there were three positions for graduate students pursuing degrees in the mental health field, and three positions for individuals providing mental health services in the community. Facilitators that were graduate students involved in collection of data for the larger study were excluded from the present study.

The sample is a subset of the couples ($N = 695$) who have completed the Relationship Checkup, a two session, motivational relationship intervention. The subset of participants excluded same sex couples due to examining the gender effects hypothesized. Additionally, one facilitator chose not to participate in this portion of the study, and three were excluded in order to reduce bias because were graduate students collecting data as part of the larger study. The combination of these exclusionary criteria reduced the sample size substantially. Therefore, couples were only included in the present study if their facilitator also participated.

Of the couples included in the study, overall, men (M) and women (W) in the current study were primarily between the ages of 25 and 34 (M = 36%, W = 39%) and between the ages of 35 and 44 (M = 26%, W = 26%). Additionally, couples were primarily White (M = 75%, W =

81%) or African American (M = 17%, W = 14%). Additionally, 19% of men and 18% of women identified as Hispanic/Latino. Men and women had mostly obtained a high school education or less (M = 47%, W = 43%) or bachelors degree (M = 18%, W = 22%). A minority of the population had obtained a vocational degree (M = 11%, W = 12%), associates degree (M = 8%, W = 6%), and master's degree (M = 11%, W = 15%). Couples reported a monthly income below \$10,000 (M = 22%, W = 43%), between \$10,000 and \$19,999 (M = 18%, W = 21%), between \$20,000 and \$29,000 (M = 17%, W = 13%), and between \$30,000 and \$39,000 (M = 11%, W = 6%). Most partners were married (66%) or cohabitating (34%), had been involved in a relationship with their current partner for an average of 10 years ($SD = 10.20$), and had children (63%).

Procedures

As mentioned above, the present study will analyze data collected within the scope of a larger treatment implementation project that assessed the Relationship Checkup intervention. The Relationship Checkup, including the scope of the present study, was approved by the University of Tennessee's Institutional Review Board.

Couples. Couples were recruited through several strategies. Flyers and brochures were placed at various locations of an integrated health care system. Individuals were recruited when they arrived for their primary care visit, at which they saw or were given brochures or flyers describing the intervention program. Finally, media resources including local radio, TV interviews, newspapers and magazine articles, and websites and social media were used to publicize the program.

Recruitment efforts emphasized the purpose of the intervention as being designed to be a relationship checkup, such that it would be the relationship health equivalent of an annual

physical health or dental checkup. The health checkup model was theorized to be less stigmatizing than therapy due to its association with already existing checkup models like physical checkups. Therefore, the checkup was not described as therapy. Recruitment also promoted the checkup as being applicable for couples at all stages of satisfaction and distress. Lastly, the checkup was promoted as being brief, compared to traditional therapy.

During the intake, staff briefly screened the participants to assess for inclusion and exclusion criteria as described above. The recruiter also explained that it would be necessary to obtain independent consent from their partner, and provided a copy of the informed consent form to be given to the partner along with the brochure explaining the program (if meeting the first partner face-to face). The recruiter then called and asked to speak with the interested individual's partner to further describe the intervention. At this point, the recruiter explained the informed consent and determined his or her interest in the project and his or her suitability. If both members of the couple were interested and eligible, the recruiter formally enrolled the couple and mailed them the Baseline Packet, which was estimated to take 45 minutes to complete. The couples were compensated in the form of a \$50 gift card for completing the packet.

Once couples were enrolled in the intervention, they received two sessions, each lasting approximately 1.5 hours, at the location of their choice (e.g., home, integrative care setting). With participant permission, intervention sessions were videotaped or audiotaped for supervision and research purposes. The first session of the intervention was the therapeutic assessment consisting of questionnaires and an in-person, conjoint interview. At the beginning of the assessment session, the program facilitator examined proof of cohabitation to ensure eligibility for the program and reviewed the consent form with the couple. Consent was obtained via signature of both partners. The consent form described the procedures involved in participation,

the risks involved, issues of confidentiality and the right to discontinue. Following these procedures, partners began with a shortened version of the Oral History Interview (OHI; Buehlman, Gottman, & Katz, 1992). The OHI was used to assess their dating narrative and to orient the couple toward some of the positive qualities of their relationship. Then the couple engaged in the therapeutic interview, which began by focusing on exploration of the couple's greatest strengths followed by the couple's areas of concern.

The second session was for feedback and helping the couple to plan their future steps toward relationship improvement. The feedback session used motivational interviewing techniques, which have been empirically validated, to facilitate the discussion of an action plan to improve their relationship that was tailored to their particular needs (e.g., Miller & Rollnick, 2002). During this session, partners received an array of suggestions and available community resources to help them decide how to actively cope with any identified issues and they developed an "action plan" based on these suggestions to improve their relationship. At the end of the session, each couple member was given a copy of the feedback report. Each partner was also asked to complete a questionnaire that assessed their satisfaction with the program and their perceived alliance with the facilitator.

To reduce the difficulties most low-income couples experience in accessing treatment, the intervention was conducted in participants' homes as opposed to asking participants to travel to an office or community center. It was expected that this would reduce the problems related to child care and transportation that are typically barriers to a low-income population's access to treatment. Couples were also given the option to meet at the affiliated university or at one of the health care systems sites. These procedures are considered best practices in providing services to low-income populations (Gilliss et al., 2001; Skaff et al., 2002; Yancey et al., 2006).

Both members of the couples were also asked to complete follow-up questions, independently of the other, at feedback and one-month after the feedback session to assess the effectiveness of the program. To improve retention for follow-up packets, facilitators called couples to check in on them and remind them to complete their packets. Couples received a \$50 gift card (1 per couple) after returning the one-month follow-up packets. Measures relevant to this study included each partner's rating of the alliance and relationship satisfaction. Relationship satisfaction was measured at baseline and at one-month follow-up, couples perceived alliance was measured at one-month follow-up, and facilitator alliance was measured following the feedback session.

Facilitators. Individuals were first hired to be facilitators as part of the larger study and were trained on the how to deliver the intervention and the procedures involved. First, facilitators watched multiple training DVDs of trained individuals delivering the intervention. Concurrently, they read the intervention protocol that was devised from the Marriage Checkup and read about Integrative Behavioral Couple Therapy (IBCT), as the intervention incorporated techniques from this therapeutic orientation. Next, facilitators engaged in role plays, first with other trained facilitators, and then with volunteers. Lastly, facilitators shadowed another facilitator conducting the intervention with an enrolled couple and then conducted the intervention themselves with another trained facilitator observing them. Facilitators worked in teams to travel to participants' homes for the assessment and feedback sessions of the intervention. Additionally, facilitators attended weekly supervision led by the Principal Investigator (PI) and Co-PI, Marriage Checkup's James Córdova. During supervision, facilitators shared videotapes of sessions conducted with couples, engaged in case conceptualization, and received feedback from the PI and Co-PI.

Individuals that were facilitators of the Relationship Checkup were invited to participate in the study. A research assistant or graduate student explained that the purpose of the project was to examine the interaction of facilitator and client factors and how these may affect couple outcomes. The graduate student or research assistant met with each facilitator to go over the informed consent and to explain their involvement in the current study including the risks, benefits, issues of confidentiality, and the right to discontinue. Each facilitator was assigned an identification number that would be used on all associated study forms. Facilitators were informed that none of the intervention supervisors would have access to their private identification number or to the information they provided during the duration of the study. Participants were also informed that the consent form would be kept separate from program materials in a locked cabinet in the graduate student's office space.

If the facilitator was interested and willing to participate, written consent was obtained. The facilitator was then asked to complete a 20-minute baseline packet that included demographic questions among other measures that are not relevant to the present study. Facilitators were also asked to complete a monthly follow-up questionnaire that took 5 minutes to complete. Lastly, facilitators completed the facilitator alliance form directly following every feedback session with a couple. This study used the latter measure and did not utilize the baseline or monthly follow-up data collected from facilitators.

Measures

Demographic questionnaire. Each member of the couple was administered a basic intake form in order to obtain background information and to provide a description of the sample. Questions relevant to the study included age, sex, race and ethnicity, and relationship status and income. Facilitators were also asked to complete a baseline form. Questions relevant

to the present study included age, sex, race and ethnicity, and education status.

Couple perceived alliance. The Therapeutic Alliance Scale (TAS; Córdova, 2007), an unpublished measure created for the Marriage Checkup, which consisted of 15 items on a 5-point Likert scale (1 = *strongly disagree*; 5 = *strongly agree*), was used to assess couples' alliance with the facilitator, and was measured at one-month follow-up. Each partner completed the measure independently of each other at one-month follow-up. Sample items read, "Our facilitator seemed to understand what is going on in my relationship," "I felt we were working together with our facilitator in a joint effort," and "A good working relationship was formed with our facilitator." Internal consistency for the couples perceived alliance was good (M: $\alpha = .93$, W: $\alpha = .92$). Distribution information and internal consistency for men and women for this scale is presented in Table 1.

Facilitator perceived alliance. Facilitators completed the Facilitator Assessment Survey (FAS, Córdova, 2007), also an unpublished measure created for the Marriage Checkup, following the feedback session with the couple, which assessed their perspective of the therapeutic alliance with the couple. The FAS consisted of 19 items on a 5-point Likert scale that assessed the therapeutic alliance on several dimensions. Questions assess the facilitators perceived effectiveness at delivering the intervention, the bond they felt with the couple, the sense of agreement and collaboration with the couple, and their prediction of the outcome of the couple. Sample items include, "I felt I was working collaboratively with the couple in a joint effort," "I formed a good working relationship with this couple," and "I felt the couple was confident in my abilities and judgments." Internal consistency for the facilitator perceived alliance was good ($\alpha = .97$). Distribution information and internal consistency for this scale is presented in Table 1.

Couple satisfaction. The 16-item Couples Satisfaction Index (CSI-16; Funk & Rogge, 2007) is a self-report questionnaire that assesses relationship health and satisfaction. The CSI-16 was completed by both members of the couple at baseline and at one-month following the feedback. The CSI-16 asks participants for 10 global evaluations of their romantic relationship on 6- and 5-point Likert-type scales, and 6 ratings of their relationship on a bipolar adjective scale for each of six characteristics (e.g., 0 = *Boring*; 5 = *Interesting*). Ratings for all questions are summed, and higher scores indicate greater satisfaction. The CSI has demonstrated excellent internal consistency ($\alpha = .94$), and strong convergent validity with existing measures of relationship satisfaction (intercorrelations equal to .87 with the 32-item DAS and .91 with the 4-item DAS). Internal consistency for satisfaction was good at baseline (M: $\alpha = .96$, W: $\alpha = .97$) and at one-month follow-up (M: $\alpha = .94$, W: $\alpha = .96$). Distribution information and internal consistencies for this scale at each time-point are presented in Table 1.

Data analytic plan

Study hypotheses were examined using structural equation modeling (SEM) with Mplus version 7.1 (Muthén & Muthén, 1998-2012). SEM is the most appropriate statistical method because it allows for simultaneous estimation of all the paths in the model while providing the flexibility to account for interdependence of the data; the provided path estimates take into account all other variables in the model. In SEM an estimated covariance matrix is generated by simultaneously estimating several regression equations. This estimated covariance matrix is compared to the covariance matrix of the observed data to determine the degree of fit using goodness-of-fit statistics. To evaluate model fit, I examined the following goodness-of-fit indices: root mean square error of approximation (RMSEA), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and standardized root mean square residual (SRMR). Model fit is

considered acceptable following these fit indices' cut-off values: a RMSEA value smaller than .08 and CFI and TLI values $>.90$, and SRMR $<.08$ (Hooper, Coughlan, & Mullen, 2008).

Additionally, SEM can address latent variables so that the paths between variables in a model can be estimated with reduced biasing effects of measurement error associated with particular instruments (Hoyle, 1991). By using multiple indicators for each key construct, the common variance among the indicators is extracted to represent the error-free and reliable construct variance. All central analyses were conducted among the predictor variables as latent constructs, which provides disattenuated (true) and unbiased estimates of the population effects when other sources of possible validity bias are not present (Little et al., 1999). In this study, items for each measured construct were first parceled into three composites (in order to achieve an identified model) using an Item-to-Construct Balance approach (see Little, Cunningham, Shahar, & Widaman, 2002 and Little, et al., 2007 for a review on parceling approaches and benefits). Thus latent constructs are indicated by the three composite scores corresponding to their respective measured construct. In SEM analyses, latent constructs are used for predictor variables in order to reduce measurement bias, while outcome variables can be represented as manifest, or measured, variables. Latent constructs are used for the predictor variables, while the outcome variables are represented as the manifest or measured variable, because measurement models aim to reduce error in the factors that are hypothesized to predict the outcome variables (e.g., Hoyle, 1991).

Prior to running the full SEM model, I tested the measurement model; a confirmatory factor analysis (CFA) was conducted to establish that the measurement model was accurately represented by the hypothesized latent constructs. To account for missing data, full information maximum likelihood estimation (FIML) was used, which uses all of the available information in

the dataset to calculate parameter estimates without excluding cases with missing values (Kline, 2010). FIML is design to handle data missing at random; therefore, variables related to missingness must be included in the model. FIML is relatively robust against nonnormality and has been found to be less biased and more efficient than other strategies, such as pairwise and listwise deletion (Arbuckle, 1996).

Additionally, the current study must account for the non-independence of data given that the data is longitudinal, that partners are nested within couples, and that couples are nested within facilitators. To account for non-independence due to repeated measures, I controlled for baseline levels of relationship satisfaction. Secondly, to control for non-independence of the data due to partners nested within couples, I correlated the error terms associated with partner measures. Finally, I used the “complex” model type statement in Mplus to account for non-independence of couples being nested within facilitators. The “complex” model type is also referred to as multilevel or hierarchical data (for an overview, see Muthén & Satorra, 1995). This option is where the facilitator ID is considered a *cluster* variable and accounts for interdependence of one facilitator working with multiple couples. Additionally, because the facilitator alliance and the couple alliance measures did not have an equal number of items, Z-scores for each measure were used in all regression analyses discussed below in order to accurately examine the relationship between the two measures.

After I determined that each measurement model fit the data adequately, I examined the associations among the predicted hypotheses. To examine hypothesis 1, I regressed each partner’s perceived alliance, measured as manifest (observed) variable, onto facilitators’ perceived alliance score, measured as a latent construct (see Figure 1). To examine hypothesis 2a, I utilized an Actor Partner Interdependence model (APIM: Kenny, 1996; Kashy & Kenny,

2000; Kenny & Kashy, 2010) and examined whether men and women's perceived alliance predicted their own and their partner's change in satisfaction (see Figure 2) at one-month follow-up. APIM is designed to address interdependence in dyadic data and allows researchers to examine the influence of one person's behavior or experience (e.g., alliance) on his/her own outcome (e.g., relationship satisfaction), the *actor* effects, as well as the effects of his/her behavior on his/her partner's outcome, the *partner* effects. To examine hypothesis 2b, I constrained women and men's paths to be equal one at a time to examine whether they significantly differed from one another in predicting relationship satisfaction. Comparisons of the freely estimated and constrained models were made using the Wald chi-square differences test in Mplus (Asparouhov, 2007). According to this test, a model fits the data better if each individual takes on unique structural pathway estimates when the freely estimated and constrained models are compared. The pathways would differ by group if constraining the structural pathways to be equal reduces the overall model fit. Therefore, a significant Wald chi-square test ($p < 0.05$) indicates that the tested path significantly differs by partner (Muthén & Muthén, 2012).

For hypothesis 3a, I regressed each partner's manifest relationship satisfaction at one-month follow-up onto the facilitators' perceived alliance, measured as a latent variable while controlling for relationship satisfaction at T1 (see Figure 3). To measure hypothesis 3b and whether facilitators' perceived alliance predicted change in relationship satisfaction above and beyond each partner's perceived alliance, I again used the Wald chi-square test to examine whether paths significantly differed from each other.

The third aim of the study is to examine the effect of split alliance, or disagreement, on outcomes. To examine hypothesis 4, APIM (Kenny, 1996; Kashy & Kenny, 2000; Kenny & Kashy, 2010) was again used to to examine whether a split alliance between facilitators' and

men, and facilitators' and women negatively predicted change in relationship satisfaction (see Figure 4). The split alliance variable was created by determining whether the facilitator and each partner's perceived alliance differed based on a quartile split dummy code, where less than or equal to the 25th quartile and the 75th quartile and above was coded as disagreement (1 = split alliance) and between 25th and 75th (the middle 50%) was coded as agreement on the alliance (0 = not split alliance). In order to examine hypothesis 5, I created a within couple split alliance variable (using the same quartile method described above). Then, relationship satisfaction was regressed onto split alliance to examine whether split alliance negatively predicted outcomes (see Figure 5).

Chapter 4

Results

Preliminary Analyses

Couple completion rates were adequate for the general study (Feedback = 89%, Time 2 = 65%), as well as for the sample from the current study (Feedback = 99%, Time 2 = 69%). Chi-square and independent samples t-tests were conducted to examine whether there were any significant differences between the general sample and the current study sample. The two samples were significantly different with regards to income ($t(643) = -2.95, p < .01$), marital status ($\chi^2(1, N = 694) = 6.96, p < .01$), and children ($\chi^2(1, N = 694) = 4.82, p < .05$). The two samples were not different with regards to the race, ethnicity, age, or level of education of the couples. Mean scores of satisfaction at baseline and one-month follow-up, and partner's alliance, were not significantly different across the two samples.

Next I examined whether demographic control variables were associated with follow-up rates in the current sample. Marital status ($\chi^2(1, N = 298) = 3.99, p < .05$) was related to follow-up at feedback. No control variables were related to one-month follow-up for men or women. Further, I examined whether men and women completing the satisfaction measure was associated with any control variables in the current study sample. Having completed the satisfaction measure at baseline was associated with identifying as white ($\chi^2(1, N = 289) = 7.90, p < .01$) for men. For women, having completed the satisfaction measure at baseline was associated with identifying as Hispanic/Latino ($\chi^2(2, N = 298) = 15.32, p < .01$), and having a high school degree or above ($\chi^2(1, N = 293) = 17.74, p < .01$). At one-month follow-up, completion of the satisfaction measure for men was associated with romantic duration ($t(675) = -1.15, p < .01$), and identifying as Hispanic/Latino ($\chi^2(2, N = 297) = 8.34, p < .01$). For women, having

completed the satisfaction measure at one-month follow-up was associated with identifying as Hispanic/Latino ($\chi^2(2, N = 298) = 8.07, p < .01$).

Additionally, of the 298 couples that completed feedback sessions in the current study, only 199 men and 203 women completed the alliance measure. Therefore, I examined whether any control variables were related to whether men and women completed the alliance measure. For men, identifying as Hispanic/Latino ($\chi^2(2, N = 297) = 8.24, p < .05$), was associated with having completed the alliance measure. For women, identifying as Hispanic/Latino ($\chi^2(2, N = 297) = 7.36, p < .05$) was related to having completed the alliance measure. Because of the above associations examining dropout in the full sample of couples and current sample, we initially included income, marital status, romantic duration, ethnicity, race, children, and having above a high school degree as controls in all of the models. However, several of these control variables did not predict any of the outcome variables. Therefore, in order to retain the most parsimonious model, certain control variables were removed from the final models, which is reported in more detail when examining each model below.

Distributions for facilitator alliance, each partner's alliance, and satisfaction were negatively skewed, and mean scores were high for study variables (Table 1). Therefore, all models were estimated using maximum likelihood robust standard errors (MLR) in order to reduce estimation bias (Asparouhov, 2005). Additionally, I ran a CFA to establish that the measurement model was accurately represented by the hypothesized latent constructs. The CFA indicated that the models fit the data well ($\chi^2(140) = 0.99, p < 0.01$, RMSEA = 0.06, CFI = 0.98, TLI = 0.96, and SRMR = 0.03) and that the measurement model for all models was accurately represented by the hypothesized latent constructs, with factor loadings ranging from 0.92 to 1.2

for men and women's baseline satisfaction, 0.85 - 0.95 for men and women's alliance, and from 0.72 - 0.89 for facilitator alliance.

Finally, preliminary analyses indicated significant positive bivariate correlations among all study variables, which can be seen in Table 2. Specifically, satisfaction across time points was significantly correlated for both men and women and was significantly correlated with both the facilitator alliance and each partner's alliance, and alliance between partners and the facilitator were significantly correlated.

Predictors of Partners' Alliance

To evaluate the hypothesis that facilitators' perceived alliance would predict both men and women's perceived alliance, I ran a regression analysis using SEM. Initially, all control variables were included in the model. However, only income and women's education emerged as significant predictors of women's alliance. Therefore, in order to retain the most parsimonious model, these were the only control variables included in the final model. The final model fit the data well ($\chi^2(36) = 0.93, p < 0.01, RMSEA = 0.08, CFI = 0.98, TLI = 0.97, \text{ and } SRMR = 0.05$). In support of study hypothesis, results indicated that facilitator perceived alliance positively predicted both men's ($\beta = 0.33, S.E. = 0.11, p < 0.01$) and women's ($\beta = 0.30, S.E. = 0.08, p < 0.01$) perceived alliance. Facilitator alliance accounted for 11% of the variance in men's report of alliance ($R^2 = 0.11$) and 9% of the variance in women's report of alliance ($R^2 = 0.09$). Additionally, income negatively predicted men's alliance ($\beta = -0.18, S.E. = 0.09, p < 0.05$), but not women's alliance ($\beta = -0.06, S.E. = 0.08, p = 0.48$). Finally, women's education level negatively predicted women's alliance ($\beta = -0.09, S.E. = 0.04, p < 0.05$). Full model results are presented in Table 3 and Figure 1.

Partners' Gender Effects on Outcome

Further, I examined whether men's and women's perceived alliance predicted change in satisfaction for themselves and their partner. Men and women identifying as Hispanic/Latino and men's education were included in the final model as these emerged as significant predictors of relationship satisfaction. The final model fit the data well ($\chi^2(118) = 1.07, p < 0.01$, RMSEA = .06, CFI = .97, TLI = .95, and SRMR = .04). Results indicated that women's alliance positively predicted change in men's satisfaction ($\beta = .19, S.E. = 0.07, p < .01$) as well as their own change in satisfaction ($\beta = .15, S.E. = 0.06, p < .01$) at one-month follow-up. Men's alliance did not predict their own change in satisfaction at one-month follow-up ($\beta = .05, S.E. = 0.05, p = .20$), but was trending toward significance in predicting change in women's satisfaction ($\beta = .07, S.E. = 0.04, p = .06$). Men identifying as Hispanic/Latino ($\beta = -0.11, S.E. = 0.02, p < .01$) and men's education level ($\beta = -0.09, S.E. = 0.03, p < .01$) negatively predicted their own change satisfaction at one-month follow-up. Women identifying as Hispanic/Latino also negatively predicted their own change in satisfaction at one-month follow-up ($\beta = -0.07, S.E. = 0.02, p < .01$). Men and women's report of alliance combined accounted for 27% ($R^2 = 0.27$) of the variance in change of men's relationship satisfaction and 24% ($R^2 = 0.24$) of the variance in change of women's relationship satisfaction at one-month follow-up. Full model results are presented in Table 4 and Figure 2.

I used the Wald chi-square differences test to examine whether women's actor effect was smaller than men's partner effect on change in women's satisfaction at one-month follow-up. Contrary to expectation, women's actor effect was not significantly different than men's partner effect on women's satisfaction (Wald $\chi^2(1) = 0.82, df = 1, p = 0.36$). I also examined whether men's or women's alliance was more predictive of change in men's satisfaction at one-month

follow-up. A Wald chi-square differences test indicated that women's alliance was approaching significance in predicting change in men's satisfaction at one-month follow-up over and above men's alliance (Wald $\chi^2(1) = 3.03, df = 1, p = 0.08$).

Effect of Facilitator and Partners' Alliance on Outcome

Next I examined whether facilitators' alliance and each partner's alliance predicted each partner's change in satisfaction at one-month follow-up. I regressed each partner's manifest relationship satisfaction at one-month follow-up onto facilitator perceived alliance, and each partner's perceived alliance, measured as latent variables, while controlling for relationship satisfaction at baseline. The only control variables that emerged as significant predictors for men's change in satisfaction were identifying as Hispanic and education, while for women, income and identifying as Hispanic emerged as significant predictors of their own change in satisfaction. The final model fit the data well ($\chi^2(143) = 1.00, p < 0.01, RMSEA = 0.06, CFI = 0.97, TLI = 0.96, \text{ and } SRMR = 0.03$).

In support of study hypothesis, results indicated that the facilitator report of alliance positively predicted men's satisfaction at one-month follow-up ($\beta = 0.17, S.E. = 0.05, p < 0.01$). Facilitator alliance, however, did not predict women's satisfaction at one-month follow-up ($\beta = 0.15, S.E. = 0.10, p = .16$). As with the previous model examining only partner's gender effects on outcome, women's alliance positively predicted change in men's satisfaction at one-month follow-up ($\beta = 0.17, S.E. = 0.07, p < 0.01$), as well as change in their own satisfaction at one-month follow-up ($\beta = 0.14, S.E. = 0.07, p < .05$). Also as with the previous model and contrary to expectation, men's alliance did not predict change in women's satisfaction at one-month follow-up ($\beta = 0.04, S.E. = 0.04, p = .24$) or their own change in satisfaction at one-month follow-up ($\beta = 0.02, S.E. = 0.03, p = .46$). All three reports of alliance accounted for 33% ($R^2 = 0.33$) of the

variance in change of men's relationship satisfaction and 37% ($R^2 = 0.37$) of the variance in change of women's relationship satisfaction at one-month follow-up. Additionally, men identifying as Hispanic/Latino negatively predicted change in men's satisfaction at one-month follow-up ($\beta = -0.11$, $S.E. = 0.02$, $p < 0.01$) as did women identifying as Hispanic/Latino negatively predict change in women's satisfaction at one-month follow-up ($\beta = -0.07$, $S.E. = 0.03$, $p < 0.01$). Further, income negatively predicted change in women's satisfaction at one-month follow-up ($\beta = -0.12$, $S.E. = 0.04$, $p < 0.01$), but not men's satisfaction at one-month follow-up ($\beta = -0.07$, $S.E. = 0.04$, $p = .08$). Finally, men's education level negatively predicted change in men's satisfaction at one-month follow-up ($\beta = -0.13$, $S.E. = 0.03$, $p < 0.01$). Full model results are presented in Table 5 and Figure 3.

Further, I examined whether facilitator perceived alliance predicted change in relationship satisfaction at one-month follow-up above and beyond each partner's perceived alliance. Several Wald chi-square differences tests were conducted to compare two paths at a time. Results indicated that facilitator alliance was in fact predictive of change in men's satisfaction above and beyond men's alliance (Wald $\chi^2(1) = 4.17$, $p < 0.05$), but women's alliance was not predictive of change in men's satisfaction above and beyond facilitator alliance (Wald $\chi^2(1) = .03$, $df = 1$, $p = 0.86$). Additionally, facilitator alliance was not predictive of change in women's satisfaction above and beyond women's alliance (Wald $\chi^2(1) = .01$, $p = 0.95$) nor was facilitator alliance predictive of change in women's satisfaction above and beyond men's alliance (Wald $\chi^2(1) = .96$, $p = 0.33$).

Effect of Split Alliance on Outcome

I then tested whether a split alliance between the facilitator and men, and the facilitator and women negatively predicted change in relationship satisfaction at one-month follow-up. Men

and women identifying as Hispanic/Latino and men's education were included in the final model as these emerged as significant predictors of change in relationship satisfaction. The final model fit the data well ($\chi^2(45) = 1.14, p < 0.01, RMSEA = 0.07, CFI = 0.98, TLI = 0.96, SRMR = 0.02$). Results indicated that split alliance between facilitator and men did not predict change in men's satisfaction ($\beta = -.04, S.E. = 0.03, p = 0.27$) or women's satisfaction ($\beta = 0.02, S.E. = 0.05, p = 0.73$). However, split alliance between women and the facilitator negatively predicted change in men's satisfaction ($\beta = -.06, S.E. = 0.03, p < .05$) at one-month follow-up, but did not predict change in women's own satisfaction at one-month follow-up ($\beta = -.03, S.E. = 0.03, p = 0.32$). Split alliance accounted for 8% ($R^2 = 0.08$) of the variance in change of men's relationship satisfaction and 5% ($R^2 = 0.05$) of the variance in women's relationship satisfaction at one-month follow-up. Men identifying as Hispanic/Latino ($\beta = -0.10, S.E. = 0.02, p < .01$) and men's education level ($\beta = -.11, S.E. = 0.03, p < .01$) negatively predicted their own change in satisfaction at one-month follow-up. Women identifying as Hispanic/Latino also negatively predicted their own change in satisfaction at one-month follow-up ($\beta = -.07, S.E. = 0.03, p < .05$). Full model results are presented in Table 6 and Figure 4.

Finally, I examined whether split perception of alliance among partners negatively predicted change in satisfaction at one-month follow-up. Men and women identifying as Hispanic/Latino and men's education were included in the final model as these emerged as significant predictors of relationship satisfaction. The final model fit the data well ($\chi^2(41) = 1.19, p < 0.01, RMSEA = 0.06, CFI = 0.98, TLI = 0.97, SRMR = 0.02$). As hypothesized, split alliance between partner's negatively predicted change in men's satisfaction ($\beta = -.17, S.E. = 0.08, p < .05$) and women's satisfaction ($\beta = -.13, S.E. = 0.03, p < .01$) at one-month follow-up. Partner's split alliance accounted for 12% ($R^2 = 0.12$) of the variance in change of men's

relationship satisfaction and 9% ($R^2 = 0.09$) of the variance in change of women's relationship satisfaction at one-month follow-up. Men identifying as Hispanic/Latino ($\beta = -0.10$, $S.E. = 0.03$, $p < .01$) and men's education level ($\beta = -0.10$, $S.E. = 0.03$, $p < .01$) negatively predicted their satisfaction at one-month follow-up. Women identifying as Hispanic/Latino also negatively predicted their own satisfaction at one-month follow-up ($\beta = -0.07$, $S.E. = 0.03$, $p < .01$). Full model results are presented in Table 7 and Figure 5.

Chapter 5

Discussion

The present study highlights the complex associations between facilitators' and partners' alliance and the effect of alliance on relationship satisfaction. Specifically, the present study examined the unique contribution of both the facilitator and each partner's perceived alliance on change in relationship satisfaction. The current study also examined the effect of disagreement on perceived alliance between the facilitator and each partner, and disagreement between partners on the perceived alliance, on change in relationship satisfaction.

First, when examining the association between facilitator and partners' alliance, facilitator perceived alliance positively predicted both men's and women's perceived alliance with the facilitator. This suggests that facilitator perception of the alliance accurately predicted how each partner perceived the alliance. The finding that facilitator alliance positively predicted the alliance between both partners may be elucidated by attachment theory and the process of counter-transference. If the therapist-client bond is one in which trust and attachment are formed (Bordin, 1994; Horvath & Greenberg, 1994), then facilitators feeling a close bond led to each partner feeling trust and potentially having a strong attachment to the facilitator. Additionally, if a facilitator liked a couple better, she/he may have been more likely to work harder in session, show more warmth toward the couple, and thus the couple may have felt closer and safer with the facilitator and seen him/her as more competent. Clinically, this finding implies that even in a short, two session intervention, facilitators are able to accurately predict how men and women feel about the alliance. Additionally, this finding may provide additional support that the facilitator measure developed for the Marriage Checkup (FAS, Córdova, 2007) reliably assesses the alliance with the couple.

Second, I examined whether men's and women's perceived alliance predicted change in relationship satisfaction at one-month follow-up and whether actor and partner effects were present. Results indicated that women's report of a strong alliance positively predicted change in relationship satisfaction for both themselves and their partner at follow-up, while men's report of alliance was not predictive of their own change in satisfaction and was trending toward significance in predicting women's satisfaction. Previous studies have been inconsistent on determining gender differences in the association between alliance and outcomes. Some studies have found that only men's alliance scores are significantly associated with relationship outcome (Brown & O'Leary, 2000; Symonds & Horvath, 2004), while other studies have found that only women's ratings of alliance were significantly related to outcome (Knobloch-Fedders, Pinosof, & Mann, 2007; Pinosof et al., 2008). The present study provides further support to prior studies that indicate that women's alliance is related to outcome (Knobloch-Fedders, Pinosof, & Mann, 2007; Pinosof et al., 2008). The finding that women's report of alliance positively predicted change in relationship satisfaction for men and women at follow-up while men's alliance did not, may be because women are more likely to see others' perspectives and judge the thoughts and feelings of others more accurately (Davis, 1980; Davis & Franzoi, 1991; Ickes, Tooke, Stinson, Baker, & Bissonnette, 1988). It is possible that these findings are a product of men not being as accurate reports of relationship functioning. Correlational results suggested that both men and women are noticing and reporting the same quality of relationship with the facilitator. However, in predicting men's relationship satisfaction, women are perhaps perceiving the relationship with the facilitator more accurately than men, which suggests that, as findings indicated, men's report of alliance would not be as predictive of relationship satisfaction when women's report of alliance is included as a predictor along with men's alliance.

Given that men's alliance was trending in predicting change in women's relationship satisfaction, results regarding the importance of men's alliance on women's satisfaction following the intervention are not conclusive and may still play an important role in brief interventions. This finding may indicate that men's positive engagement with the facilitator, which might be exemplified by behaviors like self disclosure that counters traditional gender norms, helps women to feel safer in the relationship and form a stronger attachment with their partner, leading to improved relationship outcomes. This finding may also imply that if men are more engaged in the intervention, they reap more benefits from it, which in turn makes them more successful at improving their relationship. Because women tend to seek couple counseling and are generally more relationally oriented, therapeutic alliance may matter less for them, but these results also suggest that it might be possible that women benefit more from their partner having a positive therapeutic relationship with the facilitator.

Further, previous studies have indicated that change in satisfaction for women was influenced by their perception of the men's alliance with the facilitator to a greater magnitude than women's own alliance with the facilitator (Glebova et al., 2007). It is possible that we were unable to replicate this finding because our measure of alliance did not actually assess each individual's perception of their partner's alliance with the facilitator. Instead we used each person's report of their own alliance to predict satisfaction. It is possible that a more nuanced measure that captures each partner's report of alliance and their inferred perception of their partner's alliance with the facilitator may yield different results. Another possible explanation for the discrepant findings may be that the current intervention was very brief in duration in comparison to traditional therapy. Interdependence theory explains that partners' outcomes may become intertwined over the course of an extended interaction (Rusbult & Buunk, 1993), such as

therapy. In these situations, the positive experiences of one partner may become rewarding for the other. This can be seen if one partner reacts positively and benefits more from the intervention as a result of their partner becoming more engaged in the treatment process. This process may be occurring given that there is a trend in men's alliance predicting women's relationship satisfaction, but the intervention may not have been long enough for partners' outcomes to become intertwined. As interdependence theory explains, this process occurs over a prolonged period of time. It is possible that in examining relationship satisfaction after a longer period of time following the intervention that we might find differing results. Further research is warranted to understand the inconsistent gender effect findings in studies to date.

Third, I added facilitator alliance to the above model and examined whether facilitator perceived alliance was predictive of change in partners' satisfaction one-month following the intervention. Results indicated that facilitators' report of a strong alliance with the couple predicted increased satisfaction in men but not women following the intervention. Studies examining therapists' and partners' alliance in the context of couple therapy have indicated that the therapists' alliance is predictive of positive outcomes for both partners, whereas the couples' report of alliance is not predictive of outcome (e.g., Symonds & Horvath, 2004). The present study provides a partial replication as we were not able to replicate this for women. Facilitators' view of the alliance did predict outcomes for men, however. Because men tend to exhibit a greater reluctance to engage in treatment, forming a strong relationship with the facilitator may allow them to disclose vulnerable emotions and move away from traditional gender norms, which allows them to work on the relationship. Without a strong alliance, men may not feel comfortable to disclose vulnerable emotions.

Taken together, results indicated that facilitator alliance positively predicted change in relationship satisfaction for men but not women, that women's report of alliance predicted change in both their own and men's relationship satisfaction, and that men's report of alliance did not significantly predict change in relationship satisfaction for themselves or their partner. Additionally, this study indicated that alliance has a moderate effect size on couples' outcomes, which is similar to what has been found in other couple and family therapies (Friedlander et al., 2011). These findings suggest that alliance is an important predictor of couples' outcomes. Additionally, these findings may imply that women are very aware of their relationship with the facilitator because they are socialized to be cognizant of emotions and their relationships with others (Dunn, Bretherton, & Munn, 1987; Fivush, 1992). Therefore, the facilitator's report of alliance does not predict their satisfaction because women are already fairly accurate at assessing their relationships. On the other hand, facilitator report of alliance is predictive of change in men's relationship satisfaction in addition to women's report of alliance because facilitators are carefully trained to notice the relationship they have with the couple. These findings suggest that it is possible that the facilitator is noticing even more than what the women are noticing with regards to the alliance. Facilitators in the study had a greater range of scores of the alliance than men and women, which supports the notion that facilitators are therefore more attuned to the relationship than each partner. On the other hand, men are socialized to be more avoidant of vulnerable emotions and are less attuned to relationship functioning emotion (Snell, Miller, Belk, Garcia-Falconi, & Hernandez-Sanchez, 1989; Fuchs & Thelen, 1988; Zeman & Garber, 1996), which may explain why their own report of alliance is not predictive of their relationship satisfaction.

Given that the effect of all participants' reports of alliance on outcome has not previously been examined within the context of brief interventions or couples' relationship education programs, the current study provides insight into the role of facilitator *and* both partners alliance on outcomes within the context of a brief intervention. Literature on the common factors of effective psychotherapy indicates that the alliance is a necessary component for positive outcomes. The alliance has been found to be twice as powerful a predictor of outcomes as any other client or service characteristic and more powerful than all client characteristics combined (e.g., Beck & Jones, 1973; Green & Herget, 1991), which emphasizes the importance of the study of alliance in couple therapies and interventions. The present study confirms that the alliance is an important predictor of couples' outcomes. That the present study was able to show that alliance has moderate effects size on outcome after only a two session intervention further highlights the importance of the alliance. Additionally, it has been theorized that when more than one person is involved in the direct treatment system, "the expanded therapeutic alliance may be a common factor that is unique to marital and family therapies" (Sprenkle & Blow, 2004, pg. 124). Therefore, examination of how all reports of alliance interact is imperative to further understanding common factors in effective couple therapies.

Fourth, I examined whether a split alliance between the facilitator and each partner would negatively predict change in relationship satisfaction. Results indicated that a split alliance between facilitators and women predicted decreased relationship satisfaction for men at one-month follow-up, but did not predict women's own relationship satisfaction at one-month follow-up. Additionally, results indicated that a split alliance between facilitators and men did not predict men's relationship satisfaction or women's relationship satisfaction. Previous studies have indicated that agreement or disagreement between the couple and therapist or facilitator

would likely impact the outcome of therapy (Pinsof & Catherall, 1986; Symonds & Horvath, 2004). Research support for the hypothesis is limited, and one study has indicated that when couples are split in their alliance with the therapist, the outcome is less favorable (Horvath et al., 2011). However, that study examined the couple outcomes and not each individual's outcome. The current study extends this finding by elucidating how split alliance between partners' and the facilitators' impacts outcome for each partner.

Findings indicate that disagreement on the alliance between women and the facilitator predicts worse relational outcomes for men, while split alliance between women and the facilitator did not predict outcomes for themselves and men's split alliance did not predict outcomes for themselves or their partner. Women's satisfaction may not be impacted by split alliance the way men are possibly because women display higher commitment to work on the relationship and they may also have an "ability to work toward positive outcomes regardless of the relative strength of their relationship with the therapist" (Symonds & Horvath, 2004, p. 453). However, men's relationship satisfaction suffers when women are not aligned with the facilitator, possibly because a split alliance indicates that the facilitator is missing something important about the couple's relationship functioning that the woman may see differently. Given that women have been found to be more accurate reports of relationship functioning than men, women's report of the alliance is likely accurate and meaningful. If the facilitator is not accurately capturing what is happening in the relationship, the facilitator may be working towards different goals and not connecting well with the couple if the woman does not feel understood. Therefore, a split alliance between women and the facilitator results in the intervention not working as well, and leads to decreased relationship satisfaction for men. On the other hand, a split alliance between men and the facilitator is likely not resulting in a significant

prediction of relationship satisfaction for either partner, possibly because they are not accurate reporters of relationship functioning. Since men are likely not accurate reports of relationship functioning in comparison to women, facilitators are likely not missing any important information about the couple's relationship functioning. Therefore, the goals the facilitator is working towards are still helping the couple improve their relationship functioning, which may explain why split alliance between men and facilitators did not predict relationship functioning. The present study however did not examine the directionality of the disagreement among each partner and the facilitator, such that we are unable to determine the effect of whether women report a stronger alliance than the facilitator, or vice versa. Further elucidating these links would provide a clearer picture of how exactly a split alliance is predictive of outcomes.

Fifth, I also examined whether split alliance among partners negatively predicted change in satisfaction at one-month follow-up. Split alliance between partners negatively predicted change in both men's and women's relationship satisfaction at one-month follow-up. Previous studies have indicated that alliance was predictive of outcome only when partners agreed with each other about the strength of the alliance with their therapist (Friedlander et al., 2011; Symonds and Horvath, 2004). The present study provides further support for prior studies that have examined the association between split alliance between partners and relationship outcomes. Differing levels of alliance with the facilitator is the only predictor that negatively impacted satisfaction for both men and women. Whereas women's alliance and men's alliance did not impact change in their own or their partner's satisfaction equally, disagreement on the alliance appears to impact both partners in the relationship. A split alliance between partners may impact both partner's relationship satisfaction because a secure attachment may not be present while attempting to work on relationship conflict. If partners do not feel secure to explore the

problems in the relationship, each partner's relationship satisfaction would likely suffer.

Additionally, disagreement over the alliance may indicate that each partner has different notions of the goals and tasks of the intervention, which may indicate that each partner is attempting to resolve a different conflict or that they do not agree on the conflicts in the relationship (Bordin, 1994). Therefore, disagreement over the quality of the alliance is detrimental to couple outcomes. As with the previous finding, the present study did not examine the directionality of the disagreement among each partner, such that we are unable to determine the effect of whether women report a stronger alliance than men, or vice versa, on outcomes. Further examining these links is necessary to determine whether men or women reporting a strong or weak alliance drives these findings.

Finally, each model discussed above examined whether demographic variables impact couple outcomes and alliance. There are several significant findings worth noting. Results indicated that when couples' income was greater, men's report of alliance was poorer. Given that couples with lower incomes have greater barriers to care, it is possible that when couples' income is lower, men's alliance is more positive because they are grateful for receiving the service or perceived that they have a greater need for the service than those with higher incomes. Therefore, gratitude for receiving the service and for the facilitator conducting the intervention may create a positive alliance. Additionally, when women reported higher levels of education, their perceived alliance with the facilitator was less positive. These findings suggest that people who had a lower income and lower education had more respect for the facilitator, whereas people who are more wealthy and had a higher education level were less kindly disposed to their facilitator or less easily impressed.

Further, in examining predictors of relationship satisfaction, men and women identifying as Hispanic/Latino negatively predicted their satisfaction at one-month follow-up. Ethnic and racial minorities may benefit less from the intervention because they may be experiencing more stress due to language barriers, acculturating to a new culture, lower levels of social support, and barriers to access of health care (Torres & Wallace, 2013) in comparison to individuals of the majority culture. Finally, results suggested that the intervention had a greater positive impact on men's relationship satisfaction when men had lower levels of education. This may be because men with lower levels of education might have less knowledge on the factors that impact their relationship. Therefore, they may reap a greater benefit than those with higher levels of education.

Limitations and Future Directions

The present study has several limitations worth noting. One possible limitation concerns the generalizability of our findings to same sex couples. Given that the study examined gender effects, the sample was limited to only heterosexual couples. Further research should be conducted to determine the effect of alliance on outcomes in same sex couples. Second, because this study was as secondary data analysis of an existing study, one limitation concerns our measures. The measures used to assess alliance in the present study, the TAS (Córdova, 2007) and the FAS (Córdova, 2007), were created specifically for the purpose of measuring alliance in Marriage Checkup and are not widely used measures. Given the specific nature of the Checkup, an alliance measure was created to better target the alliance within a brief, structured intervention. Additionally, the TAS was also used a means of measuring the couples' satisfaction for the program. These measures were given to be consistent with measures used in the original evaluation of the Marriage Checkup. While neither measure is widely used, both measures

capture the different facets of alliance discussed in the literature: the bond that is developed through investment, mutual agreement, and collaboration on tasks and goals as well as the perception of the therapeutic bond. Future research may consider replicating the findings from the current study with more widely used measures, such as the Couple Therapy Alliance Scale (CTAS; Pinsof & Catherall, 1986) or the couple version of the Working Alliance Inventory (WAI-Co; Symonds & Horvath, 2004). These measures reflect Bordin's (1979) concept of goals, tasks, and bonds, but they also add the within-couple alliance, which refers to the alliance between two partners. This may provide further insight into the findings from the present study, particularly whether a more nuanced measure of within-couple alliance provides differing conclusions than the split alliance method used in the present study.

Further, a limitation of the present study is that the facilitator reported on their alliance with the couple as a whole and not with each partner. It is possible that in measuring the alliance with the couple as a whole, information about the intricacies of the alliance with each partner may have been lost. If the facilitator has a stronger alliance with one partner than the other, this may have skewed how the facilitator rated the alliance with the couple overall. However, the FAS, used to measure facilitator alliance with the couple, did include an item that assessed whether the facilitator felt pulled into an alliance with one partner over the other.

Additionally, as stated previously, the TAS was also used as a means of assessing the couples' satisfaction with the intervention. Because of this, couples completed the TAS at one-month follow-up as opposed to directly following the feedback. The facilitators on the other hand, completed the alliance measure following the feedback. While it has been stated that client's alliance remains relatively stable over time (Martin, Garske, & Davis, 2000), future research may want to examine whether the timing on which the measures were given predicts

relationship satisfaction similarly to the present findings. Future studies may want to consider assessing alliance both at the feedback and at follow-up, which would add the benefit of assessing whether the alliance shifts over time.

Finally, while each partner completed the TAS, the current study did not actually assess each partner's perception of the alliance their partner had with the facilitator. While we hypothesized that a partner's perception of their partner's alliance with facilitator could influence outcome, it is difficult to say whether this was the case without a measure that explicitly takes into account how each partner perceived the other partner's alliance. Horvath and colleagues (2010) discusses the "inferred" perception of alliance, and they define it as an indirect perception, or "guess" of how one's partner perceives the therapeutic relationship with their therapist. The WAI-Co (Symonds & Horvath, 2004) does take into account each partner's report of alliance with the therapist and each partner's perception of their partner's alliance with the therapist.

Conclusions

Overall, the current study demonstrated that alliance in brief couple's interventions is important to the outcome of the intervention. The present findings, although not without limitations, contribute to the limited knowledge of alliance in couple therapy and interventions. The findings suggest that alliance positively impacted change in relationship satisfaction for both men and women following the intervention. While this is true for both partners, the impact on change in relationship satisfaction differed based on the different reports of alliance. Facilitator and women's report of alliance significantly predicted increased relationship satisfaction for men following the intervention, while for women, their own report of alliance was the only significant predictor of increased satisfaction in the relationship following the intervention. Further research

is needed to gain more understanding into the role each partner's alliance has on satisfaction, and whether each partner's perception of the others alliance impacts outcome. These findings imply that the alliance may have amplified the effects of the intervention, as is suggested in the literature on common factors in therapy. Clinically, this suggests that therapists must continue to foster the development of the therapeutic alliance with both partners as the alliance does predict change in relationship satisfaction following the intervention. Additionally, knowledge about how gender influence the development of the alliance may help therapists better target how to build the alliance. Further, while research on the gender effects of alliance on outcomes is still mixed, the present study contributes more definitive knowledge on how split alliance affects couples' outcomes. Overall, differing levels of alliance predicted less relationship satisfaction following the intervention, and may suggest that multiple alliances are a liability to effective treatments. This implies that having a balanced alliance between partners is more important than the strength of the alliance. Further research is needed to further elucidate the directionality of the disagreement over the alliance, such as whether wives or husbands disagree about the strength of the alliance and whether this impacts relationship satisfaction differently. Finally, further research is needed to replicate findings using a systematic approach to studying alliance in the context of couple's therapy and interventions, such that each report of alliance is measured at multiple time points using a widely used measure, and that uses sophisticated analytic methods as was done in the present study.

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Appendix

Table 1. Scales internal consistency and distribution information

	Means (SD)	Median	Range	Skewness (S.E.)	Kurtosis (S.E.)	Internal Consistency
<i>Women's Relationship Satisfaction</i>						
T1	56.05 (19.00)	59.00	2-81	-0.80 (.15)	0.04 (.29)	.97
T2	61.81 (17.24)	66.50	2-81	-1.21 (.17)	1.35 (.34)	.96
<i>Men's Relationship Satisfaction</i>						
T1	58.82 (16.58)	61.00	0-81	-0.74 (.15)	0.04 (.29)	.96
T2	62.53 (15.35)	67.00	3-81	-1.08 (.17)	1.39 (.34)	.94
<i>Couples Perceived Alliance</i>						
Men	52.24 (8.21)	55.00	8-60	-1.70 (.17)	4.36 (.34)	.93
Women	54.63 (6.91)	57.00	22-60	-1.83 (.17)	3.75 (.34)	.92
<i>Facilitator Perceived Alliance</i>						
Feedback	79.06 (15.39)	81.00	29-100	-0.85 (.14)	0.39 (.28)	.97

Note: T1 = baseline; T2 = one-month follow-up

Table 2. Bivariate correlations

	<i>N</i>	1	2	3	4	5	6
1. Women's Baseline Satisfaction	269	---	---	---	---	---	---
2. Men's Baseline Satisfaction	270	.77**	---	---	---	---	---
3. Women's Satisfaction One-month F/u	194	.81**	.64**	---	---	---	---
4. Men's Satisfaction One-month F/u	192	.59**	.72**	.69**	---	---	---
5. Men's Alliance One-month F/u	193	.28**	.23**	.35**	.30**	---	---
6. Women's Alliance One-month F/u	197	.30**	.34**	.40**	.45**	.48**	---
7. Facilitator Alliance Feedback Session	298	.35**	.28**	.41**	.35**	.27*	.27**

* $p < .05$ ** $p < .01$

Table 3. Predictors of Partner's Alliance

	B	S.E.
Men's Alliance		
Facilitator Alliance	0.33**	0.11
Income	-0.18*	.09
Women's Alliance		
Facilitator Alliance	0.30**	0.08
Income	-0.06	0.08
Women Education	-0.09*	0.04

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

Table 4. Partner Gender Effects on Outcome

	B	S.E.
Men's One-Month Satisfaction		
Women's Alliance	0.19**	0.07
Men's Alliance	0.05	0.05
Women's Baseline Satisfaction	0.09	0.08
Men's Baseline Satisfaction	0.56**	0.13
Men Hispanic	-0.11**	0.02
Men Education	-0.09**	0.03

Women's One-Month Satisfaction		
Women's Alliance	0.15**	0.06
Men's Alliance	0.07 ^a	0.04
Women's Baseline Satisfaction	0.78**	0.09
Men's Baseline Satisfaction	-0.05	0.09
Women Hispanic	-0.07**	0.02

* $p < .05$ ** $p < .01$ ^a $p = .06$

Table 5. Predictors of Outcome

	B	S.E.
Men's One-Month Satisfaction		
Facilitator Alliance	0.17**	0.05
Women's Alliance	0.17**	0.07
Men's Alliance	0.02	0.03
Men's Baseline Satisfaction	0.59**	0.13
Women's Baseline Satisfaction	0.01	0.10
Men Hispanic	-0.11**	0.02
Men Education	-0.13**	0.03
Income	-0.07	0.04

Women's One-Month Satisfaction		
Facilitator Alliance	0.15	0.10
Women's Alliance	0.14*	0.07
Men Alliance	0.04	0.04
Men's Baseline Satisfaction	-0.02	0.09
Women's Baseline Satisfaction	0.71**	0.09
Income	-0.12**	0.04
Women Hispanic	-0.07**	0.03

* $p < .05$ ** $p < .01$

Table 6. Facilitator and Partners' Split Alliance Effect on Outcome

	B	S.E.
Men's One-Month Satisfaction		
Men's Baseline Satisfaction	0.61**	0.12
Women's Baseline Satisfaction	0.13	0.10
Split Men/Fac Alliance	-0.04	0.03
Split Women/Fac Alliance	-0.06*	0.03
Men Ethnicity/Hispanic	-0.10**	0.02
Men HS and up	-0.11**	0.03

Women's One-Month Satisfaction		
Men's Baseline Satisfaction	-0.01	0.08
Women's Baseline Satisfaction	0.82**	0.08
Split Men/Fac Alliance	0.02	0.05
Split Women/Fac Alliance	-0.03	0.03
Women Ethnicity/Hispanic	-0.07**	0.03

* $p < .05$ ** $p < .01$

Table 7. Effect of Partners' Split Alliance on Outcome

	B	S.E
Men's One-Month Satisfaction		
Split Couple's Alliance	-0.17*	0.08
Men's Baseline Satisfaction	0.60**	0.12
Women's Baseline Satisfaction	0.12	0.10
Men Hispanic	-0.10**	0.03
Men Education	-0.10**	0.03

Women's One-Month Satisfaction		
Split Couple's Alliance	-0.13**	0.03
Men's Baseline Satisfaction	-0.02	0.08
Women's Baseline Satisfaction	0.81**	0.09
Women Hispanic	-0.07**	0.03

* $p < .05$; ** $p < .01$

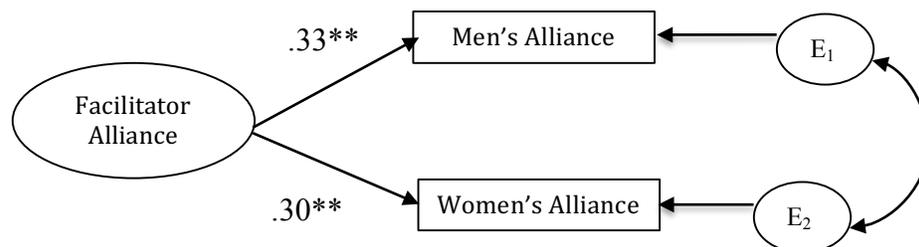


Figure 1. *Predictors of Partner's Alliance*

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

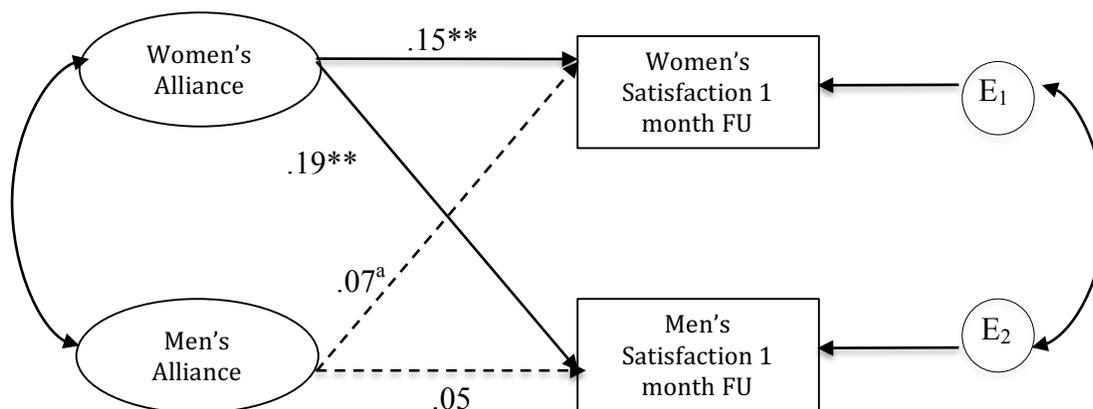


Figure 2. *Partner Gender Effects on Outcome*

Note: For ease of interpretation, baseline levels of satisfaction for men and women, and demographic variables, were not included in the model, though analyses do control for these.
 $*p < .05$ $**p < .01$ $^ap = .06$

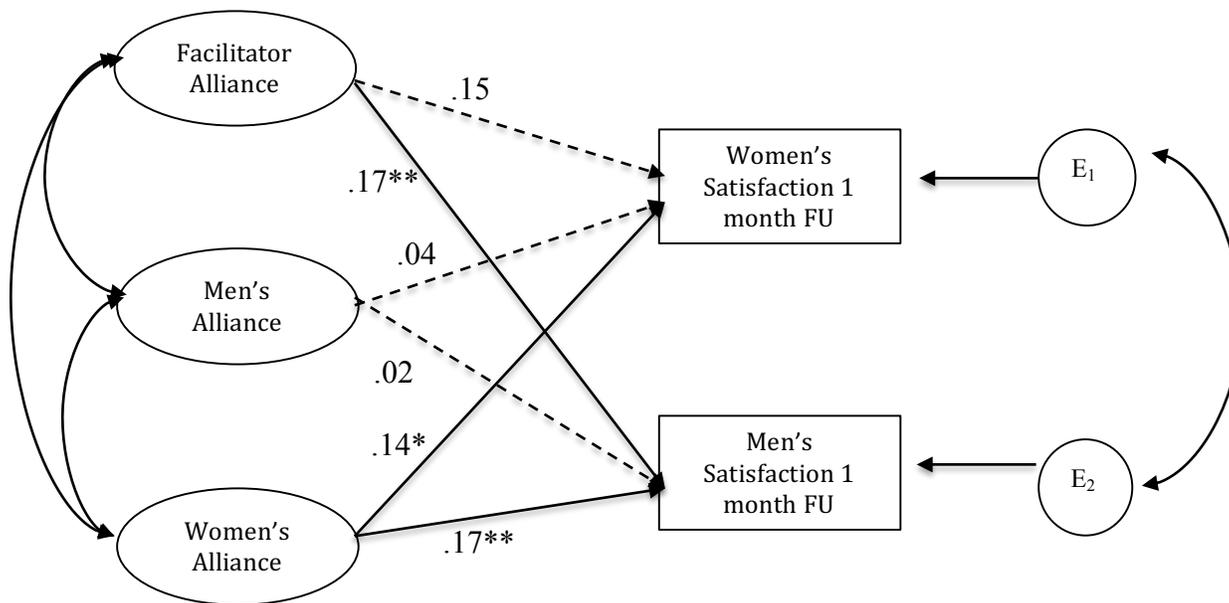


Figure 3. *Predictors of Outcome*

Note: For ease of interpretation, baseline levels of satisfaction for men and women and demographic variables were not included in the model, though analyses do control for these.
 $*p < .05$ $**p < .01$

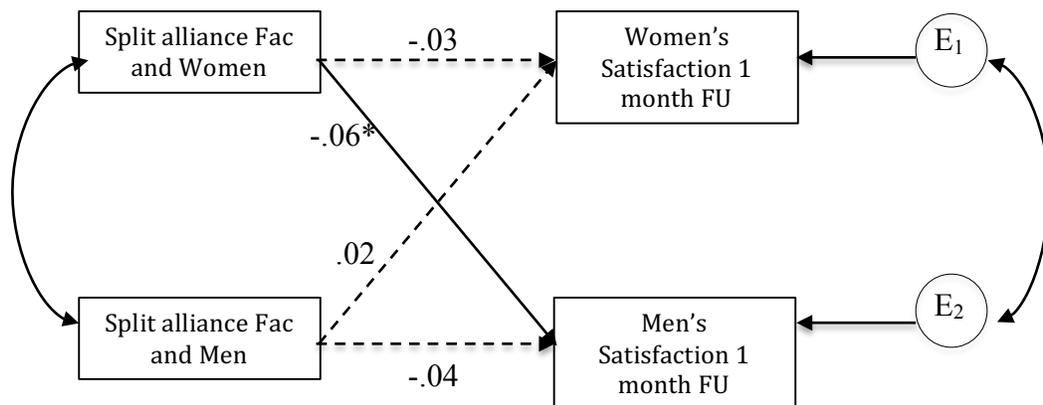


Figure 4. *Facilitator and Partners' Split Alliance Effect on Outcome*

Note: For ease of interpretation, baseline levels of satisfaction for men and women and demographic variables were not included in the model, though analyses do control for these.

* $p < .05$ ** $p < .01$

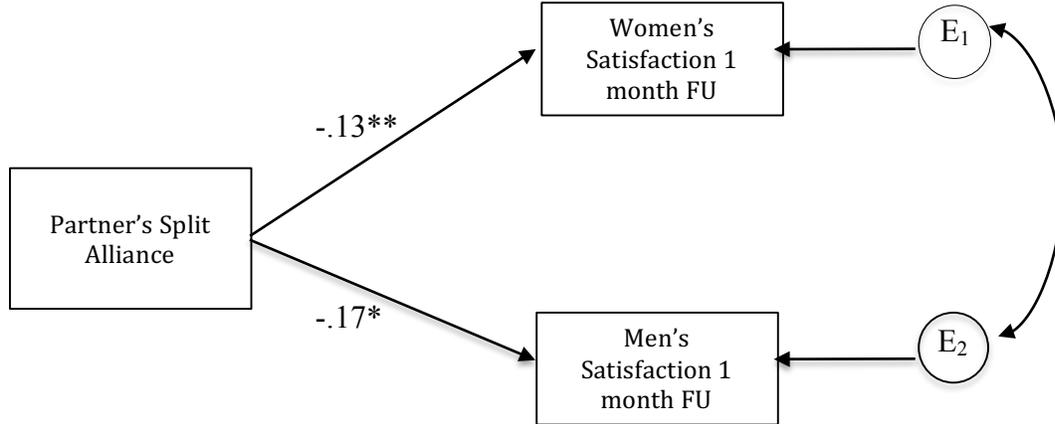


Figure 5. *Partner's Split Alliance Effect on Outcome*

Note: For ease of interpretation, baseline levels of satisfaction for men and women and demographic variables were not included in the model, though analyses do control for these.
* $p < .05$ ** $p < .01$

Vita

Jessica Hughes was born in Buenos Aires, Argentina, to parents Laurence and Maria Hughes. She is the youngest of three children, preceded by Brent and Natalie. She attended the Lincoln American/International School in Argentina, where she took both International Baccalaureate (IB) and Advancement Placement (AP) classes, and received her High School Diploma in 2005. After graduation, she moved to Miami, Florida to attend the University of Miami, where she was introduced to the field of Psychology. Jessica became involved with research by joining the lab of Dr. Jutta Joormann, where she worked for two and a half years. She obtained a Bachelors of Arts degree with Honors and Distinction in May 2009 in Psychology. Following graduation, she accepted a position as a research assistant at Brown University in Providence, RI where she worked for two years. Her research and clinical experiences at Miami and Brown fueled Jessica's desire to pursue a PhD in Clinical Psychology. Therefore, she accepted a graduate assistantship to work with Dr. Kristina Coop Gordon at the University of Tennessee, Knoxville in the Clinical Psychology doctoral program in 2011. She received her Masters of Arts in Psychology in 2014, en route to her doctoral degree. Following completion and acceptance of her dissertation, Jessica completed her pre-doctoral psychology internship at the Corporal Michael J. Crescenz VA Medical Center in Philadelphia in August 2017.