

## CHANGES IN RELATIONSHIP-SPECIFIC ATTACHMENT IN EMOTIONALLY FOCUSED COUPLE THERAPY

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*Emotionally focused couple therapy (EFT; Johnson, The practice of emotionally focused couple therapy (1st/2nd edition). Brunner-Routledge, New York, 2004) is an effective treatment of relationship distress (Johnson et al., Clinical Psychology: Science and Practice, 1999; 6, 67). However, less is known about EFT's impact on couples' relationship-specific attachment bond. Using hierarchical linear modeling with a sample of 32 couples, we examined session-by-session changes in couples' relationship-specific attachment anxiety and avoidance and pre- to posttherapy changes in their relationship-specific attachment behaviors. Couples significantly decreased in relationship-specific attachment avoidance, and those who completed a blamer softening significantly decreased in relationship-specific attachment anxiety. Couples' attachment behavior significantly increased toward security. Finally, session-by-session decreases in relationship-specific attachment anxiety and avoidance were significant associated with increases in relationship satisfaction across sessions. These results provide empirical support for the attachment-based assumptions of EFT.*

Emotionally focused couple therapy (EFT; Johnson, 2004) is an empirically validated approach to treat relationship distress. EFT therapists understand relationship distress as resulting from partners' rigid engagement in negative interaction cycles which develop from partners' unmet attachment needs within their relationship (Johnson, 2004). During therapy, as partners identify, experience, and express their attachment needs, they learn new patterns of engagement with

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their partner. These new patterns are thought to aid in the restructuring of partners' relationship-specific (RS) attachment orientations and behavior. The goal of this study was to investigate whether EFT leads to changes in RS attachment orientations and behavior using multimethod assessment and a longitudinal design.

### *Emotionally Focused Couple Therapy*

Emotionally focused couple therapy (Johnson, 2004) uses experiential, systemic, and attachment-based approaches to help improve couples' relationship distress. Johnson, Hunsley, Greenberg, and Schindler (1999) conducted a meta-analysis and reported that 70–73% of couples demonstrate recovery from relationship distress after completing 8–12 sessions of EFT. Follow-up studies (Clothier, Manion, Gordon Walker, & Johnson, 2002; Johnson et al., 1999) have demonstrated that 60–70% of couples either maintained or increased their relationship satisfaction gains 3 months to 2 years posttherapy. Couples who completed EFT reported higher levels of intimacy at posttherapy than couples who were assigned to a waiting list control group or completed behavioral couple therapy (Denton, Burleson, Clark, Rodrigues, & Hobbs, 2000; Johnson & Greenberg, 1985). One of the reasons why EFT is thought to be so successful is its basis in attachment theory (Johnson, 2004).

### *Attachment Theory, Conceptualization, and Measurement*

Attachment theorists hold (Shaver & Mikulincer, 2002) that individuals develop internal working models of attachment based on early experiences with primary caregivers. These internal working models are comprised of implicit and explicit memories and beliefs about others' availability and responsiveness in times of distress and they help to organize goal-directed behavior in close relationships (Mikulincer & Shaver, 2007). According to attachment theory and research (Belsky & Pasco Fearon, 2008; Bowlby, 1988), individuals with attachment security were provided with sensitive and responsive (i.e., attuned) emotional support by their primary caregivers. As a result, these individuals are thought to develop an understanding of, and an ability to cope with, negative affect (Fonagy, 2001). They also learn that others are a viable resource for reassurance in times of need (Shaver & Mikulincer, 2002). Individuals with attachment anxiety have reported inaccurate emotional mirroring by their primary caregivers; depriving them of a full understanding of their emotional experience; and leading them to quickly become overwhelmed by their negative affect (Fonagy, 2001). Accordingly, these individuals believe that negative affect is unmanageable alone. Further, based on the inconsistent support from their primary caregivers (Fonagy, 2001), they believe that in order to have their attachment needs met, they must *hyperactivate* their expressions of distress, through clinging behavior or coercive demanding responses to loved ones (Lavy, Mikulincer, & Shaver, 2013). Unfortunately, this hyperactivating behavior interferes with their ability to provide responsive caregiving to their partner (Mikulincer, Shaver, Bar-On, & Sahdra, 2014). Individuals with attachment avoidance have reported often facing rejection when they disclosed their attachment needs to their caregivers (Belsky & Pasco Fearon, 2008). This leads these individuals to deactivate their affective experiences, to avoid relying on others to meet their needs, and to dismiss the emotional needs of their partners in caregiving situations (Mikulincer et al., 2014).

Research demonstrates that individuals have both a general working model of attachment that guides how they respond to a variety of different relationships, and RS working models of attachment that influence how people interact in particular relationships (Ross & Spinner, 2001). Theory and research suggest that these attachment networks are hierarchical in nature (Bretherton & Munholland, 2008). Further, changes in individuals' perceptions of their own worthiness of care, and others' availability in times of need, within specific relationships, have been shown to influence changes in their overall self-reported general attachment orientations (Pierce & Lydon, 2001).

Further, general and RS self-report measures of attachment are assumed to assess attachment orientations, that is, more explicitly held attachment-based thoughts, feelings, and self-observed behavior in close relationships (Ben-Naim, Hirschberger, Ein-Dor, & Mikulincer, 2013). General or RS attachment narrative or behavioral coding measures, on the other hand, have been argued to tap into internal working models, that is, more implicitly held attachment beliefs that guide narrative and behavioral patterns (Jacobvitz, Curran, & Moller, 2002).

### *Process of Change in EFT and RS Attachment*

The process of change in EFT targets one of the most common interaction cycle displayed by distressed couples, identified by Christensen and Heavey (1990) as “the demand/withdrawal” interaction cycle. Specifically, one partner makes demands from or blames the other, and the other partner emotionally and/or physically withdraws from their partner in response to these criticisms. In EFT, a systemic and attachment framework is used to understand this cycle. Specifically, blaming is assumed to be a RS anxiously attached partner’s hyperactivated pleas for emotional connection, whereas withdrawing is understood as a RS avoidantly attached partners’ attempt to deactivate feelings of rejection related to a perception of being unable to please their partner (Johnson, 2004).

To facilitate shifts in the explicit and implicit RS attachment-based thoughts, affect, and behavior, which influence couples’ negative interactions, EFT therapists guide partners through three major change events. In cycle de-escalation, partners learn that the behavior within their cycle is a result of their verbally and nonverbally communicated attachment-based cognitions and emotions. In withdrawer re-engagement, withdrawing partners are encouraged to distill and disclose their attachment-based need for acceptance and their fear of rejection while also being more emotionally accessible and responsive to their blaming partners’ cries for connection (Johnson, 2004). Additionally during withdrawer re-engagement, blaming partners are encouraged to see their partners’ withdrawal as a result of their own fear of rejection rather than a true desire to avoid intimacy. In blamer softening, blaming partners are encouraged to engage with their partner from a position of vulnerability by expressing their fear of emotional and/or physical abandonment. During this change event, withdrawing partners are also helped to respond to their partner with warmth and acceptance. In order for these change events to be considered successful, both partners must change their perception of, and behavior toward, their partner; as a result, they are considered couple-level change events (Johnson, 2004). Process research in EFT demonstrates that couples who complete blamer softening are more likely to display higher levels of emotional experiencing and expression, greater attuned responsiveness, and move out of relationship distress at the end of EFT than couples who do not achieve this change event (Dalglish, Johnson, Burgess Moser, Wiebe, & Tasca, 2015b; Johnson & Greenberg, 1988).

The process of change in EFT provides partners with the opportunity to experientially explore and disclose attachment needs and the chance to learn that others can respond to these attachment needs in a more emotionally supportive and attuned manner than they experienced in the past. Bowlby (1988) argues that this kind of therapeutic engagement could lead to increases in individuals’ attachment security. Accordingly, it has been a long-time theoretical assumption that the process of change in EFT leads to increased RS attachment security between partners.

### *Attachment and Couple Therapy Outcomes*

In 2013, Benson, Sevier, and Christensen examined changes in general self-reported attachment orientations using the Adult Attachment Scale (AAS; Collins & Read, 1990) over the course of integrative (ICBT) and behavioral couple therapy (BCT). They did not find any significant change in general attachment anxiety or avoidance in therapy, but did find associations between attachment and relationship satisfaction at most time-points. With respect to EFT, Dalglish, Johnson, Burgess Moser, Wiebe, and Tasca (2015a) demonstrated that individual partners with higher levels of pretherapy RS attachment anxiety achieve greater relationship satisfaction gains over the course of therapy. This result suggests the importance of RS attachment orientations in EFT outcomes, but does not provide evidence as to whether or not partners’ RS attachment insecurity decreases over the course of EFT. Actually, EFT research has yet to demonstrate significant change in general or specific attachment from pre–post therapy (Makinen & Johnson, 2006) or follow-up (Halchuk, Makinen, & Johnson, 2010). This might be due to the author’s use of limited measurement time-points over the course of therapy. It could also be due to their use of a generalized, instead of RS, measure of romantic attachment to assess change (Halchuk et al., 2010).

Although previous EFT outcome research has not investigated session-by-session change in RS attachment orientations over the course of therapy, recent EFT process research has provided some support for the idea that EFT impacts couples’ felt sense of attachment security. For example, blamer softenings in EFT have repeatedly been found to be associated with the kinds of

emotional accessibility and responsiveness that typifies more secure attachment to a partner (Greenman & Johnson, 2013). Burgess Moser, Johnson, Dalgleish, Wiebe, and Tasca (2015) used therapist ratings and process measures to identify and confirm couples' completion of a softening event. They report an association between the completion of blamer softening in EFT and intercept and slope discontinuities in couples' session-by-session scores on RS anxiety and avoidance, indicating that attachment significantly changes during these sessions.

### *Study Goals, Plan of Analysis, and Hypotheses*

The current study was designed to further test the attachment-based assumptions of EFT by examining changes in couples' RS self-reported attachment orientations, and RS attachment behavior over the course of therapy. As EFT is targeting a specific relationship, we choose to focus on changes in RS attachment rather than changes in general attachment. Self-reported and behaviorally coded measures of RS attachment were included to investigate change in both explicit and implicit aspects of partners' RS attachment. To measure more implicit aspects of RS attachment than found in self-report measures, we assessed attachment behavior using the Secure Base Scoring System (SBSS; Crowell, Treboux, Gao, Fyffe, & Waters, 2002). This measure codes both verbal and nonverbal aspects of partners' attachment-based careseeking (secure base use) and attachment-based caregiving (secure base support). According to the authors of this measure, the extent to which an individual seeks attachment-based support from and provides attachment-based support to their partner in a time of need provides evidence of the quality of their attachment bond. We also sought to investigate the relationship between changes in couples' attachment orientations and changes in relationship satisfaction over the course of therapy. Therefore, we examined whether session-by-session changes in couples' self-reported, RS attachment anxiety, and avoidance were significantly associated with session-by-session changes in their self-reported relationship satisfaction.

It was predicted that: *Hypothesis 1a*: Couples will demonstrate statistically and clinically significant increases in relationship satisfaction from pre- to posttherapy. *Hypothesis 1b*: Couples will report a significant decline in RS attachment anxiety and avoidance over the course of therapy. *Hypothesis 2*: Couples' posttherapy observed secure base use, and support behaviors will significantly increase from pretherapy scores. *Hypothesis 3*: Session-by-session changes in couples' self-reported levels of attachment anxiety and avoidance will be significantly associated with changes in self-reported relationship satisfaction over the course of therapy such that decreases in attachment anxiety and avoidance will be related to increases in relationship satisfaction.

## METHOD

### *Eligibility and Sample Selection*

To participate, couples had to be over the age of 25 years old, be exclusively involved and living with one another for at least one year, and not involved in individual therapy for the duration of the marital intervention. Neither partner could report; a current or past diagnosis of psychosis, any current alcohol or drug abuse/misuse, a history of childhood or adulthood physical or sexual abuse, nor could they report physical or sexual violence in their current relationships. Research has suggested that these characteristics have a tendency to impact the length and process of EFT (Johnson, 2004). Couples met the relationship distress criteria for the study if the mean of their total score was in the moderately distressed range (80–97) on the Dyadic Adjustment Scale (DAS; Spanier, 1976). As we were investigating change in RS attachment over the course of therapy, at least one partner's attachment scores had to be over the 95% confidence interval of the norms on the Experiences in Close Relationship Inventory (ECR; Brennan, Clark, & Shaver, 1998; Shaver, Schachner, & Mikulincer, 2005).<sup>1</sup> Specifically, at least one partner's score on the modified ECR had to be  $\geq 3.80$  for anxiety or  $\geq 2.20$  for avoidance.

Couples were recruited from the community in Ottawa, Ontario through media advertisements, posters at local community agencies, and referrals from a local private practice. A total of 666 couples reported initial interest in participating in our study. Due to the stringent exclusion/inclusion criteria necessary for an fMRI component of this project reported elsewhere (Johnson et al., 2013), and our desire to recruit a relatively homogenous sample of couples to allow for the

first investigation of the attachment-based assumptions of EFT, after the initial telephone screen, 62 couples proceeded to the laboratory assessment to determine final eligibility requirements. This screening left a total of 39 eligible couples, and 32 couples who actually began therapy. One couple ended therapy without completing the posttherapy questionnaires. All couples completed the pretherapy SBSS assessment; however, only 27 couples completed the posttherapy SBSS assessment. Interested readers can refer to Dalgleish et al. (2015a) for a more detailed flowchart of this screening procedure.

Sample size estimation drew on Mass and Hox's (2005) simulation study for multilevel modeling and previous studies that used two-level HLM models with couples (Homish, Leonard, & Kearns-Bodkin, 2006). Assuming the intervention would have a large effect size on measures of relationship functioning (Dunn & Schwebel, 1995), to ensure a power of 0.80, we estimated that 30 couples would be sufficient.

### *Participants*

The mean age of women and men in the sample was 44.1 ( $SD = 6.7$ ) and 45.3 ( $SD = 8.2$ ), respectively. The majority of the participants were Caucasian (95.2%), married (94%), with two couples living common-law. The mean length of relationship was 15.9 years ( $SD = 8.5$  years). Most couples in the sample reported having at least one child (96%). The individual mean income of the sample was \$75,886.79 CAD ( $SD = \$60, 103$ ), and most (93%) reported secondary education.

### *Procedure*

*Assessment and therapy procedures.* Couples were recruited from the community and underwent an initial telephone screen. Eligible participants attended a second in-person screening appointment to determine final eligibility requirements. Couples were informed of all study procedures, provided informed consent, completed pretherapy questionnaires that contained the DAS and modified ECR, and a conflict resolution task. Couples were randomly assigned to 14 social workers or psychologists at a local private practice. All therapists were trained in emotionally focused couple therapy by EFT supervisors through professional externships and internships. Each therapist had a minimum of 2 years experience in EFT and administered the intervention following Johnson's (2004) original text. Partners completed an assessment package after every therapy session that included a relationship satisfaction measure (Dyadic Adjustment Scale; DAS, Spanier, 1976) and a measure of RS attachment (modified Experiences in Close Relationship-Short Form; ECR-SF; 12 items, Wei, Russell, Mallinckrodt, & Vogel, 2007). A posttherapy assessment was conducted where partners completed questionnaires including the DAS and the modified ECR and a conflict resolution task. Couples were provided free therapy and were financially reimbursed \$200.00 (CND) for the research assessments. The mean number of sessions for all couples is 21.3 ( $SD = 6.7$ ), ranging from 13 to 35 sessions. On average, the blamer softening event or the closest approximation of this event occurred at session 14.6 ( $SD = 6.03$ ), ranging between sessions 5 and 29. Couples were deemed complete after therapists indicated they had reached and attempted to complete the blamer softening. For detailed information about how blamer softening events were determined, see Burgess Moser et al. (2015). Recruitment, therapy, and research testing occurred between March 2008 and May 2011.

### *Measures*

*The Dyadic Adjustment Scale.* The DAS (Spanier, 1976) is a 32-item measure of romantic relationship satisfaction with total sum scores ranging between 0 and 151; higher scores indicate greater dyadic satisfaction. Spanier (1976) reported a total mean score of 114.8 ( $SD = 17.8$ ) for married individuals, and 70.7 ( $SD = 23.8$ ) for divorced individuals. This scale demonstrates a high degree of internal consistency of  $\alpha = .96$  (Spanier, 1976) and stability (2-week stability of  $r = .87$ ; Carey, Spector, Lantinga, & Krauss, 1993). For the current study, internal consistency ratings ranged between  $\alpha = .81$  and  $.98$ .

*The Experiences in Close Relationship Scale.* Modified versions of the ECR (36 items; Brennan et al., 1998) and the ECR-Short Form (ECR-SF; 12 items, Wei et al., 2007) were used to examine partners' explicit perceptions of attachment anxiety (e.g., I worry a fair amount about

losing my partner), and attachment avoidance (e.g., I don't feel comfortable opening up to my romantic partner). These measures were modified with permission (P. Shaver, personal communication; December 6, 2006; Mikulincer & Shaver, 2007) to have partners respond to items with respect to their feelings about their current romantic partner, rather than romantic partners in general. Like the original version, both the modified ECR and ECR-short contain a 7-point Likert scale, and a mean score is used with a range of 1–7. Higher scores indicate greater attachment insecurity. For the pre- and posttherapy ECR RS anxiety (18 items) and avoidance (18 items each), the Cronbach's alpha coefficients were between .86 and .97. The mean Cronbach's alpha over 21 sessions for each session's ECR-short RS anxiety and avoidance subscales (6 items each), were .76 and .79, respectively, which are similar to the psychometric properties of the original versions of the measures (Brennan et al., 1998; Wei et al., 2007).

*The Secure Base Scoring System.* The SBSS (Crowell et al., 2002) codes both verbal (explicit) and non-verbal (implicit) aspects of partners' RS attachment-based behavior during a standard conflict resolution task. For this task, couples were asked to discuss a re-occurring conflict in their relationship for 15 min while being videotaped. Besides requiring couples to agree on the conflict topic, researchers did not provide any guidance on the couples' selection. Partners were asked to complete this task at pre- and posttherapy. Partners' behavior was rated on a series of 7-point Likert scales including four *secure base use* subscales which assess (1) the clarity of partners' initially expressed distress signal, (2) how this signal is maintained over time, (3) whether the individuals' expresses an expectation that the partner should help, and (4) whether individuals are comforted by the other, or engage in self-soothing. Partners' behavior was also rated on four *secure based support* subscales which assess (1) the degree of interest expressed in partners' concern, (2) ability to recognize partners' distress and (3) ability to interpret the attachment significance of partners' distress, and (4) the degree of responsiveness. The SBSS contains detailed descriptions and examples for each level from 1 to 7 for each of the subscales. The scores on these subscales, along with coders' judgment on partners' overall SBSS behaviors, were used to judge the global secure base use and support scores that were used in the final analysis (Crowell et al., 2002).

Scores on the secure base use and support scales demonstrate convergent validity with the Adult Attachment Interview (AAI), a narrative coding measure thought to assess more implicit aspects of attachment (Main, Kaplan, & Cassidy, 1985). Based on a sample of 144 engaged couples, securely attached individuals on the AAI have mean secure base use and support scores of 4.5 ( $SD = 1.6$ ) and 4.5 ( $SD = 1.7$ ), respectively, and insecurely attached individuals have mean secure base use and support scores of 3.4 ( $SD = 1.6$ ) and 3.3 ( $SD = 1.7$ ), respectively. Further, secure base use and secure base support behavior were positively correlated with individual partners' AAI narrative coherency ratings ( $r = .43$  and  $.41$ ,  $p \leq .01$ , respectively, for women and  $r = .37$  and  $.34$ ,  $p \leq .01$ , respectively, for men; Crowell et al., 2002). The SBSS has also demonstrated divergent validity with measures of marital communication (Crowell et al., 2002).

Four graduate students were trained to code partners' behavior pre- and posttherapy on the SBSS. Coders were blind to the pre-post therapy classification of the videos. Coding was done independently and then compared. Coders watched the segment at least once, but were allowed to re-watch the segments as needed. When coders' initial scores were the same, less, or equal to 1 score apart, the average of the coders' scores was used in the final data analyses. When coders' initial scores differed by more than 1 point, coders met to reach consensus for the final score. In the latter case, consensus was reached through discussion and re-watching video segments as needed. Initial scores were used to calculate reliability. Intraclass correlations, with two-way mixed and consistency agreement classification, were used to determine interrater reliability and the coefficients for the videos within and between coding groups. These ranged between .65 and .87, suggesting good-to-excellent agreement (Bech & Clemmensen, 1983).

### *Statistical Analyses*

*The Reliable Change Index.* We used the Reliable Change Index (RCI; Jacobson & Truax, 1991) to examine pre- to posttherapy changes in partners' relationship satisfaction scores (Hypothesis 1a). The RCI accounts for fluctuations in change scores that can arise due to measurement error. If the RCI value exceeds 1.96, the probability of the mean pre- to posttherapy difference

occurring by chance is  $<.05$  and, thus, represents a reliable change. The current study implemented a clinical cutoff of 97 for the DAS (Jacobson, Follette, & Revenstorf, 1984).

*Hierarchical Linear Modeling.* Hierarchical Linear Modeling (HLM; Singer & Willett, 2003) is a method of examining repeated measures data that are nested within multiple levels. In the present study, the repeated measurements (Level 1) of the dependent variables are nested within individual partners (Level 2), and individual partners are nested within couples (Level 3). Dependence in our data was high as indicated by intraclass correlation coefficients for HLM (Singer & Willett, 2003) ranging between .24 and .54 for our outcome variables. As a result, we limited our results to effects at Level 3.

To test Hypotheses 1b, we ran a series of intercept-only and unconditional linear models with time (session) as a predictor and RS attachment anxiety and avoidance as the dependent variables (See Supplemental File). To test Hypotheses 2, we ran a series of intercept-only and unconditional linear models with time (pre- and postmeasurements) as a predictor and couples' postmean secure base use and support scores as the dependent variable (See Supplemental File). To test Hypothesis 3, we ran two separate conditional linear models with couples' mean ordinary least square (OLS) slopes for attachment anxiety and avoidance as predictors of changes in relationship satisfaction (See Supplemental File). To obtain partners' OLS slopes for attachment anxiety and avoidance, we ran two separate 2-level unconditional linear models for attachment anxiety and for avoidance, saved the individuals' OLS slope values, and then calculated mean couple OLS slopes values. Mean couple OLS slope values were entered as predictors at level 3 in the 3-level models to predict change in couples' relationship satisfaction. For the unconditional and conditional linear models, we entered individuals' and couples' prescores on the dependent variables at levels 2 and 3, respectively, to control for their impact on estimates of change. Further, the time variable at time 1 was set at 0 so that intercepts referred to couples' pretherapy assessment scores. We used full maximum-likelihood estimation for all HLM analyses.

## RESULTS

Data were screened and corrected for entry errors, outliers, and normality (Tabanick & Fidell, 2012). There was no missing data for the pretherapy and 96% of the sample (62/64 individuals) completed the posttherapy assessment. Further, 72% of the sample provided complete data at each session. HLM handles missing data well if that data are considered to be missing at random (MAR). We used a pattern mixture model to evaluate whether missing data were missing at random (MAR) for each of the dependent variables (Gallop & Tasca, 2009).

For the pattern mixture modeling, a series of conditional linear models were run to determine whether therapy dropouts ( $n = 5$ ) had different outcomes than the rest of the sample ( $n = 27$ ). Dropout status was added as a predictor at level 3 and was not significantly associated with relationship satisfaction ( $p = .13$ ), RS attachment anxiety ( $p = .40$ ), or avoidance ( $p = .75$ ). None of these conditional linear models were a better fit to the data ( $p > .05$ ). There was one couple that did not complete the SBSS who was not originally coded as a dropout, and thus, they were added to the dropout predictor variable for the SBSS missing data analysis. This dropout status was not significantly associated with secure base support ( $p = .75$ ), but it was significantly associated with secure base use ( $p < .001$ ). As this conditional linear model was not a significantly better fit to the data than the unconditional linear model without dropout as a predictor  $p > .25$ , we did not control for this variable in the SBSS HLM analysis. Based on these analyses, it was determined that our data were MAR and full maximum-likelihood estimation was used to estimate reliable parameters for our missing data.

Preliminary data analyses were also conducted to ensure the faithful implementation of EFT. Two independent graduate students reviewed a third of each couple's therapy audiotapes and rated therapists statements as either EFT-specific (8) or non-EFT specific (8) on an implementation checklist. Raters demonstrated a Cohen's kappa of .71 on all codes and found that 93.5% of therapist statements were EFT specific. A series of conditional linear models with therapists as predictors indicated that they were not significant predictors of outcomes ( $p \geq .05$ ). It was deemed that therapy was faithfully implemented and therapist effects did not need to be controlled for in subsequent analyses.

*Clinical Outcomes*

*Pre–post therapy means.* Means, standard deviations, and correlations among RS attachment variables and relationship satisfaction are presented in Table 1. As per our inclusion criteria, couples’ mean level of relationship satisfaction at pretherapy was in the moderately distressed range ( $M = 87.8, SD = 8.1$ ). At posttherapy, couples’ mean level of relationship satisfaction placed this sample in the adjusted range ( $M = 99.2, SD = 15.2$ ). At pretherapy, the majority of couples in the current study (94%,  $n = 30$ ) included partners both of whom reported RS attachment anxiety ( $M = 3.9, SD = 0.61$ ) and avoidance ( $M = 3.5, SD = 0.77$ ). At posttherapy, couples’ mean RS attachment anxiety ( $M = 3.5, SD = 0.88$ ) decreased to a place that was comparable to the mean generalized romantic attachment reported by nonclinical couples (i.e., 3.80; Shaver et al., 2005), but their mean RS attachment avoidance ( $M = 3.2, SD = 0.81$ ) was still over the 95% confidence interval of the avoidance mean (i.e.,  $\geq 2.20$ ) of Shaver et al.’s (2005) norms. At pretherapy, couples’ mean secure base use ( $M = 3.34, SD = 0.66$ ) and support ( $M = 3.64, SD = 0.85$ ) scores were closer in range to those scores reported by insecurely attached individuals on the AAI (Crowell et al., 2002). At posttherapy, couples’ mean secure base use ( $M = 3.95, SD = 0.81$ ) and support ( $M = 4.25, SD = 0.95$ ) scores increased to be comparable to those identified by Crowell et al. (2002) to be securely attached on the AAI.

*Reliable Change Index.* Results indicated that 65% ( $n = 20$ ) of the couples demonstrated clinically significant recovery ( $n = 17$ ) or improvement ( $n = 3$ ) on the DAS at posttherapy, providing support for Hypothesis 1a. A total of 29% ( $n = 9$ ) were deemed “unclassifiable” in terms of change, and 6% ( $n = 2$ ) of couples reported a reliable deterioration in relationship satisfaction scores. The pretreatment to posttreatment effect size based on the paired  $t$  test (Rosnow & Rosenthal, 2003) was large,  $d = .81, t(31) = -4.43, p < .001$ .

*Hierarchical Linear Modeling.* As previous research in EFT has only examined pre- and postoutcomes, and this was the first time HLM was used to examine session-by-session changes in

Table 1  
*Correlations, Means, and Standard Deviations of ECR-RS and DAS at Baseline and Posttherapy*

	ECR-RS Anxiety Pretherapy	ECR-RS Avoidance Pretherapy	DAS Pretherapy	ECR-RS Anxiety Posttherapy	ECR-RS Avoidance Posttherapy	DAS Posttherapy
ECR-RS anxiety pretherapy	–	.00	–.17	.59**	–.16	–.01
ECR-RS avoidance pretherapy		–	–.34**	.16	.42**	–.14
DAS pretherapy			–	–.15	–.05	.32*
ECR-RS anxiety posttherapy				–	.31*	–.37**
ECR-RS avoidance posttherapy					–	–.66**
DAS posttherapy						–
Mean (SD)	3.9 (0.61)	3.5 (0.77)	87.8 (8.1)	3.5 (0.88)	3.2 (0.78)	99.2 (15.2)

*Notes.* Baseline  $n = 32$ , posttherapy  $n = 31$ . \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



relationship satisfaction and RS attachment anxiety and avoidance, we did not want to assume change happened in a linear manner. Accordingly, we examined both linear and quadratic time parameters as predictors of change. The deviance statistics indicated the linear parameters were a better fit ( $p < .005$ ) to changes in relationship satisfaction and RS attachment avoidance than the quadratic, and the linear and quadratic parameters led to equal estimates for changes in RS attachment anxiety. Thus, linear time parameters were used for all analyses.

*Relationship satisfaction*—The unconditional linear model for relationship satisfaction demonstrated a significant slope across sessions,  $\gamma_{100} = 0.39$ ,  $t(30) = 6.36$ ,  $p < .001$ . This suggests that couples were reporting significant improvements in their relationship satisfaction at a rate of 0.39 per weekly session (Figure 1). The pseudo  $R^2$  suggests that the linear parameter explained 31% of the within person variance in relationship satisfaction scores over time, which represents a large effect size (Cohen, 1988). The unconditional linear model was a significantly better fit than the intercept-only model,  $\chi^2(10) = 531.13$ ,  $p < .001$ . These results were also reported by Dalglish et al. (2015a) as a preliminary analysis to assess predictors of relationship satisfaction change.

*RS attachment anxiety*—The unconditional linear model for attachment anxiety demonstrated a nonsignificant slope,  $\gamma_{100} = -0.01$ ,  $t(30) = -1.77$ ,  $p = .09$ . This suggests that, on average, attachment anxiety did not decrease, at a significant rate over the course of therapy. However, the pseudo  $R^2$  indicated that the linear parameter explained 16% of the within person variance in attachment anxiety, which represents a medium effect size for time on attachment anxiety (Cohen, 1988). Further, based on a chi-square analysis of the difference in deviance statistics, the unconditional linear model was a significantly better fit to the data,  $\chi^2(10) = 225.69$ ,  $p < .001$ . As previous research (Burgess Moser et al., 2015) had found an association between the completion of blamer softening and shifts in RS attachment anxiety slopes, we conducted a follow-up analysis to determine whether attachment anxiety decreased for those couples who were previously identified in this research as completing the blamer softening event. When we examined only softened couples' post-softening session-by-session scores on attachment anxiety ( $n = 16$ ), we found a significant decreasing slope,  $\gamma_{100} = -0.03$ ,  $t(14) = -5.87$ ,  $p < .001$ . These results suggest that RS attachment anxiety did significantly decrease over the course of therapy, at a rate of  $-0.03$  per weekly session; but only for softened couples, and only after the softening event occurred (Figure 2). These results suggest partial support for Hypothesis 1b. The pseudo  $R^2$  showed that the linear parameter explained 17% of the within person variance in attachment anxiety scores, which represents a medium effect size (Cohen, 1988). Additionally, based on a chi-square analysis of the difference in deviance statistics, the unconditional linear model was a significantly better fit to the data than the intercept-only model,  $\chi^2(4, n = 16) = 63.97$ ,  $p < .001$ .

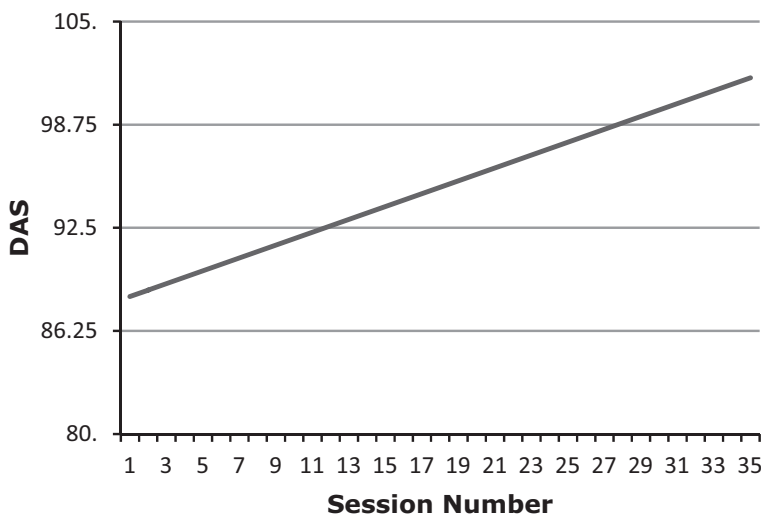


Figure 1. Dyadic Adjustment Scale scores across sessions.

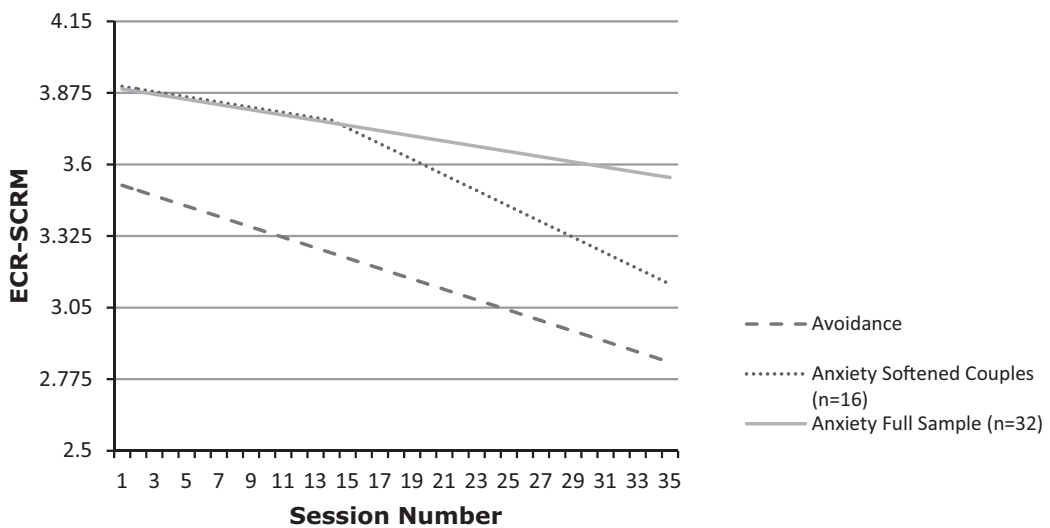


Figure 2. Attachment scores across sessions.

*RS attachment avoidance*—The unconditional linear model for attachment avoidance (Appendix S1, Model A) demonstrated a significant slope for,  $\gamma_{100} = -0.02$ ,  $t(30) = -4.18$ ,  $p = .002$ , indicating that attachment avoidance significantly decreased over the course of therapy, at a rate of  $-0.02$  per weekly session (Figure 2). These results provide support for Hypothesis 1b. The pseudo  $R^2$  showed that the linear parameter explained 19% of the within person variance in attachment avoidance scores, which represents a medium effect size (Cohen, 1988). The chi-square analysis of the difference in deviance statistics also suggested that the unconditional linear model was a significantly better fit than the intercept-only model,  $\chi^2(10, n = 32) = 281.14$ ,  $p < .001$ .

*Changes in pre-post SBSS behavior*—Couples' secure base use and support change from pre- to posttherapy was examined with two unconditional linear models. The unconditional linear models for secure base use and secure base support both demonstrated a significant slope from pre- to posttherapy measurements,  $\gamma_{100} = 0.62$ ,  $t(30) = 4.82$ ,  $p < .001$  and  $\gamma_{100} = 0.61$ ,  $t(30) = 3.58$ ,  $p < .001$ , respectively (Appendix S1, Model A). These results indicated that couples' mean posttherapy secure base use and support significantly improved from pretherapy levels. These results provide support for Hypothesis 2. Both of these unconditional linear models were a better fit to the data than their respective intercept-only models, secure base use:  $\chi^2(10, n = 32) = 155.46$ ,  $p < .001$ , and secure base support:  $\chi^2(10, n = 32) = 202.73$ ,  $p < .001$ . The pre-post effect size for SBSS use and support scales were medium,  $d = .76$ ,  $t(26) = -3.89$ ,  $p < .001$  and  $d = .60$ ,  $t(26) = -3.07$ ,  $p = .004$ , respectively.

#### Relationship Satisfaction and Attachment

Hypothesis 3 predicted that couples' session-by-session decreases in attachment anxiety and attachment avoidance would be significantly associated with increases in relationship satisfaction over the course of therapy (Appendix S1, Model B). We tested this hypothesis using two separate conditional models with couple mean OLS slopes for attachment anxiety and avoidance as predictors of change in couples' DAS scores.

*Attachment anxiety and relationship satisfaction.* The results showed a significant effect for change in attachment anxiety on the DAS slope,  $\gamma_{102} = -7.71$ ,  $t(31) = -3.18$ ,  $p = .004$ , indicating that couples' mean change in attachment anxiety was significantly associated with changes in couples' mean relationship satisfaction; that is, decreases in attachment anxiety were significantly associated with increases in relationship satisfaction. These results provide support for Hypothesis 3. Further, adding change in attachment anxiety as a predictor significantly improved model fit,  $\chi^2(2, n = 31) = 12.03$ ,  $p < .005$ .

*Attachment avoidance and relationship satisfaction.* The data showed a significant effect for change in attachment avoidance on the DAS slope,  $\gamma_{102} = -10.50$ ,  $t(31) = -5.24$ ,  $p < .001$ ,

indicating that couples' mean change in attachment avoidance was significantly associated with changes in couples' mean relationship satisfaction; that is, decreases in attachment avoidance significantly were associated with increases in relationship satisfaction. These results also provide support for Hypothesis 3. Further, adding change in attachment avoidance as a predictor significantly improved model fit,  $\chi^2(2, n = 31) = 223.41, p < .001$ .

## DISCUSSION

The majority of study couples reported reliable and clinically meaningful improvements in relationship satisfaction from pre- to posttherapy. This is consistent with previous longitudinal and randomized controlled research that demonstrates increases in relationship satisfaction as a result of EFT (Dalglish et al., 2015a; Denton et al., 2000). The primary aim of this study was to investigate change in RS attachment across therapy sessions. Our results indicated that the sample as a whole displayed significant decreases in RS attachment avoidance over the course of therapy and couples' RS attachment behavior (SBSS secure base use and support) significant increases toward security from pre- to posttherapy. Further, couples who completed a blamer softening event during the course of therapy reported significant linear decreases in RS attachment anxiety while those who did not complete a blamer softening event failed to show a similar decrease. We also examined whether and how changes in couples' attachment security were associated with changes in their relationship satisfaction over the course of therapy. Results revealed that couples' decreases in attachment anxiety and attachment avoidance were significantly associated with increases in relationship satisfaction across EFT sessions.

### *EFT and Changes in Attachment*

Emotionally focused couple therapy process research has shown that the completion of blamer softening is associated with better outcomes (Dalglish et al., 2015b; Johnson & Greenberg, 1988). Thus, it is consistent with research that decreases in RS attachment anxiety would only be seen if and when couples engaged in a change event such as blamer softening. This intervention allows for the expression of vulnerabilities that are soothed in an emotionally attuned manner and directly shape the mutual emotional accessibility and responsiveness characteristic of a secure attachment bond. As not every couple in this study was able to take this therapeutic risk and complete this event, it is not surprising that the overall sample failed to demonstrate significant shifts in attachment anxiety over time. It is also important to note that the average session of the blamer-softening event for softened couples in this study was session 14.5, and the range was 5–29. These results indicate that some couples may take longer than others to reach blamer softening and benefit from the associated decreases in RS attachment anxiety.

Couples' self-reported significant decreases in RS attachment avoidance suggest that over the course of therapy couples perceive themselves to be less likely to avoid emotional connection with their partner, and more likely to depend on them in times of need. A key component of attachment avoidance is an individual's use of deactivation strategies to deny the experience of negative affect and also to withdraw from partners in times of distress (Mikulincer et al., 2014). Unlike the impact of blamer softening on RS attachment anxiety, which seems to occur later in therapy, EFT therapists target partners' affect deactivation strategies from the beginning of therapy. This timing is consistent with the finding that couples' attachment avoidance started to decrease early in therapy and continued to do so linearly over the course of EFT. These results provide a clinical nuance of how EFT may differentially influence changes in RS attachment anxiety and avoidance.

Attachment security behaviorally measured and scored using the SBSS is defined by an ability to clearly identify and express attachment needs to one's partner while also being able to clearly understand, and respond to their partner's bids for intimate connection and emotional support (Crowell et al., 2002). The increases in security within the RS attachment-based behaviors of couples in this study are consistent with EFT therapists' focus on having partners identify, experience, and express their need for acceptance and to respond to one another's attachment needs with sensitivity and responsiveness.

### *Understanding Changes in Attachment*

The couples undergoing EFT in this study demonstrated decreases in their self-reported RS attachment insecurity over the course of therapy and greater security in their RS attachment behavior from pre- to posttherapy. These changes in couples' self-reported RS attachment orientations reflect an impact on their more explicitly held RS attachment-related constructs, and changes toward security in couples' RS attachment behavior reflect an impact on their more implicitly held RS attachment thoughts, memories, and emotions. This is the first study, to the authors' knowledge, to demonstrate change in RS attachment over the course of therapy using both self-report and behavioral measures.

It is unknown whether the changes seen in RS attachment seen in this study influenced partners' more generalized models of attachment. There is a debate within the attachment literature on how general models of attachment change over time. Longitudinal research suggests that although early childhood experiences are correlated with later adult models of attachment, the degree to which this impact lasts over time is small to moderate at best (Dinero, Conger, Shaver, Widaman, & Larsen-Rife, 2008; Fraley, Roisman, Booth-Laforce, Owen, & Holland, 2013). Further, in some cases, the degree of this association rests on the nature and quality of individuals' interpersonal relationships over time (Fraley et al., 2013; Pierce & Lydon, 2001). Thus, there is evidence to suggest that individuals' general models of attachment would change as a result of corrective emotional experiences in specific relationships. We argue that the changes seen in couples' RS models of attachment in this study would be associated with changes in couples' more generalized models of attachment, or at the very least, weakened the influence of, and thus reliance on, their more generalized models of attachment. Of course, EFT outcome research using generalized measures of attachment such as the self-reported Relationship Styles Questionnaire (Griffin & Bartholomew, 1994) or the AAI (Main et al., 1985) is needed to test this hypothesis.

### *RS Attachment and Relationship Satisfaction Growth*

Couples' self-reported decreases in their RS attachment anxiety and avoidance over the course of therapy were significantly associated with increases in their relationship satisfaction. These findings are consistent with the large body of research that has consistently demonstrated an inverse relationship between insecure attachment and relationship satisfaction (Mikulincer & Shaver, 2007). These results also support the continued use of an attachment framework in the treatment of couple distress and provide insight for research questioning attachment-based processes in couple therapy (Benson et al., 2013).

### *Study Strengths and Limitations*

The multimodal assessment of attachment is a significant strength of this study. It allowed us to investigate whether the process of change in EFT was impacting both explicit (self-report) and more implicit (behavioral) aspects of partners' RS attachment models. The longitudinal design of this study allowed for a more nuanced understanding of how key therapeutic interventions influence change in RS attachment over the course of therapy. These results are not only useful for EFT therapists but also for any attachment-based therapists interested in modifying their clients' attachment-based assumptions.

Without a control or treatment comparison group, we are unable to completely rule out the possibility that the decreases seen in relationship distress and attachment insecurity in this study might have occurred without the EFT intervention. However, it is also argued that significant HLM growth curves estimated across multiple time-points are unlikely to be found due to chance variations in the data. Further, previous EFT research (Denton et al., 2000; Johnson & Greenberg, 1985) has already demonstrated higher levels of postrelationship satisfaction in EFT groups compared to waiting list controls. However, given previous research demonstrating change in attachment due to life events (Mikulincer & Shaver, 2007), future research will have to include a control group to determine the specific impact of EFT on RS attachment. An additional limitation is that the sample for the current study was restricted to a small group of self-selected couples who were well educated and motivated enough to remain in treatment despite having to participate in a time-consuming study. This limits the degree to which these results can be applied to a broader range of clinical couples. Finally, attachment researchers (Péloquin, Lafontaine, & Brassard, 2011)

have started to examine the importance of partner effects on clinical outcomes. Future research may want to consider using such analysis to determine the influence of partners' RS attachment on outcomes.

### Study Conclusions

This study contributes to EFT research by being the first to provide empirical support for the long-held theoretical and clinical assumption that EFT facilitates a stronger attachment bond between partners over the course of therapy. The results of this study also contribute to the attachment literature by being the first to demonstrate an association between a couple therapy intervention and shifts in attachment functioning. Finally, seeing that changes in couples' RS attachment avoidance and anxiety was associated with their increased relationship satisfaction over the course of EFT point to the importance of acknowledging both the unique and common factors within couple therapy interventions (Davis, Lebow, & Sprenkle, 2012).

### NOTE

<sup>1</sup>There were two couples within our sample that only had one partner who reported RS insecure attachment. Less than 2% ( $n = 4$ ) of interested couples ( $n = 417$ ) were excluded from the sample because both partners reported RS secure attachment to one another.

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## SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

**Appendix S1.** Selected multilevel models.