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Understanding Couple Shared Reality: The Case of Combined Couple Versus Discrepancy Assessments in Understanding Couple Forgiveness

Dean M. Busby¹ · Randal D. Day¹ · Joseph Olsen²

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Abstract

In this methodological study we use the concept of couple forgiveness to explore how to utilize couple data to assess and analyze the systemic idea of a shared reality and other constructs. That is, when couples have a shared reality about a given topic (forgiveness) does that shared view enhance marital outcomes? Shared reality theory, would predict that if forgiveness is scored using a discrepancy calculation, net of previous marital quality and other standard controls, there will be significant and positive increases in relationship quality as discrepancy decreases. Data to evaluate these ideas were collected over three-years from interviews of a community sample of 324 couples. The initial ideas about a shared reality were confirmed in only a few instances. However, individual and combined ratings were significantly associated with couple outcomes but the amount of shared reality was generally not. These findings imply that couple data continues to be crucial for predicting relationship outcomes but combining scores may be more helpful than evaluating discrepancy, at least with a relational construct like forgiveness. Additionally, we found that women's assessment of personal or partner forgiveness was more statistically powerful in predicting positive marital outcomes than men's assessments.

Keywords Dyadic data analysis · Forgiveness · Interpersonal perceptions

Relationship scholars often grapple with the complexities of data from multiple family members and how to use them in their research (Busby and Poulsen 2014). There are differing theoretical perspectives about how to think about and analyze relational data. There are those who propose a shared reality view of relational dynamics (Sillars and Scott 1983). This approach emphasizes how different perspectives from family members are similar or shared and usually includes discrepancy scores in the analyses (subtracting one score from another) as less discrepancy in scores would indicate more shared reality. While a number of researchers

use discrepancy scores in different types of analyses, they rarely acknowledge that it is associated with this early theoretical construct of a shared reality (Ledermann and Kenny 2017; Schaffhuser et al. 2016). Alternatively, others (Fincham et al. 2004) recommend that simple or even complex score combinations of ratings of concepts such as forgiveness (of self or self combined with reports from a partner) will be more powerful in predicting key outcomes than using a shared reality discrepancy score assessment. Additionally, in these studies with couple data most of these authors have used individual attributes such as measures of personality, and almost all of the research has been cross-sectional (Schaffhuser et al. 2016). It is not known if the existing patterns in couple scores and the significance of discrepancies are the same when a relational attribute is measured with longitudinal data. This is an important problem to address as more sophisticated couple datasets are gathered that are longitudinal in nature.

Forgiveness is a uniquely important variable to utilize to explore different ways of evaluating a couple shared reality because of its relational nature. Close relationships can be a two-edged sword: When we voluntarily love, connect, and

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commit to another we also increase our vulnerability. With closeness comes the inevitable risk of injury, anger, grievance, disappointment, and other profound negative relational feelings potentially followed by apology and forgiveness. Researchers have found that forgiveness is a key element of the interpersonal process (Paleari et al. 2010; Pronk et al. 2010; Wheaton 1990). Increased forgiveness can build relationship strength (Eaton and Struthers 2006; Fincham et al. 2004; Gordon et al. 2009; McCullough et al. 1998) and is related to more positive cognitions regarding self and partner as well as greater intimacy and closeness in the relationship (Fincham 2009; Finkel et al. 2002; Gordon and Baucom 2003). To that end, researchers in recent years have pointed to forgiveness as one of the most important factors contributing to marital quality, commitment, and stability (Fenell 1993).

Worthington (2005) noted that before 1970 few social science researchers considered studying forgiveness except in its religious context. McCullough et al. (1998), Fincham et al. (2006), and Fincham and Beach (2010) have recognized this deficit and suggested that forgiveness be given the status of a key construct in close relationship research. To that end, these researchers examined the relationship between forgiveness and marriage outcomes and found a clear association between the level of forgiveness and marital (or committed) relationship quality, health outcomes, commitment, and relationship survivability. Spouses reported that the capacity to seek and grant forgiveness was an important factor contributing to marital longevity and marital satisfaction.

While several researchers have queried both married (or coupled) partners about forgiveness (Fincham et al. 2004; Hoyt et al. 2005; Paleari et al. 2005), it is unclear which of the various data reduction strategies used are more accurate in predictive associations with measures of marital well-being. For example, Paleari et al. (2005) found that, when assessing couple forgiveness as reported by both partners, the two independent variables (hers' and his' evaluations of forgiveness) did not load together and were, therefore treated independently.

In terms of a theoretical orientation that might help with data analysis decisions regarding couple measures like forgiveness, more than thirty-five years ago, Kantor and Lehr (Kantor and Lehr 1975) suggested that to understand family life one must first understand how family members generate and regulate meaning. They proposed that a primary expression of how meaning is negotiated in family is to attend to the shared meanings found within a family system. Broderick (1993) pursued that theme. He proposed that in healthy relationships couples form a shared sense of identity while at the same time retaining a clear sense of personal identity. This independent yet shared feature of close relationships is key to understanding relationship

success (Berger and Kellner 1964; Broderick 1993; Kenny and Acitelli 2001; Nickerson 1999; Sillars et al. 1994; Sillars and Scott 1983).

Sillars and Scott (1983) set the stage for the exploration of shared couple reality when they predicted that more powerful and compelling analyses of couple efficacy would focus on "individuals' perceptions of one another and the degree of fit between these perceptions" (Sillars and Scott 1983, p. 154). More specifically they imply that this congruence of perceptions or shared reality is more important than thinking of constructs such as forgiveness as having a 'gold-standard' of forgiving behavior. This means that shared reality theory would predict that if forgiveness is scored using a discrepancy calculation, net of previous marital quality and other standard controls, there will be significant and positive increases in relationship quality as discrepancy decreases.

A typology can be developed to summarize how scores of self and partner could be combined to measure a shared reality perspective as well as other alternatives common in the literature. As Busby et al. (2009) explained, there are at least three ways of combining dyadic data scores: adding both together (the combination hypothesis), subtracting one from the other, and subtraction followed by converting the score to an absolute value (both of the latter reflecting the shared reality hypothesis). These three primary ways of handling couple scores are used to develop the typology.

Table 1 shows four prime elements and how partner and self-evaluations of forgiveness are labeled. The first type labels a female's recording of her self-report of her forgiveness (FSR). The second type labels a female's reported view of her partner's forgiveness (FRM). The third type labels a male's recording of his self-report of his forgiveness (MSR). The fourth type labels a male's reported view of his partner's forgiveness (MRF). Table 1 also shows how these four prime elements can be combined to generate different couple forgiveness scores in the three ways described by Busby et al. (2009).

Type I (see Table 1) scores are calculated by adding the individual's self-report to the same individual's report of the partner. Of course, this strategy represents the combined scores of only one person's view of self and other. Type II calculations differ from Type I computations in that the researcher uses information from both partners. In this case, the individual's ratings of the self or partner are added to similar ratings from the partner. These Type I and Type II combination scores are not addressing the shared reality idea but have been used by existing researchers with forgiveness and other constructs (Fincham et al. 2004; Paleari et al. 2010).

Another approach is to use discrepancy scores when data are available from both members of a dyad. Busby et al. (2009) studied the effects of *partner enhancement vs. self-*

Table 1 Components and four ways to calculate couple forgiveness

Label/formula	Description
Labels of prime elements	
FSR	Female self-report of forgiveness
FRM	Female report of male forgiveness
MSR	Male self-report of forgiveness
MRF	Male report of female forgiveness
Combination strategies	
Type I assessment of couple forgiveness as viewed from only one person.	
MSR + MRF = His self-report is added to his report of spouse	
FSR + FRM = Her self-report is added to her report of spouse	
Type II assessment of couple forgiveness as viewed from self-report plus partner's report.	
MRF + FSR = His report of spouse forgiveness added to her self-report	
FRM + MSR = Her report of spouse forgiveness added to his self-report	
Discrepancy strategies creating enhancement and idealization scores	
Type I-D A discrepancy score approach using within person data yielding an <i>enhancement</i> score of couple forgiveness.	
MRF – MSR = His valuation of her forgiveness minus his self-report	
FRM – FSR = Her valuation of his forgiveness minus her self-report	
Type II-D A discrepancy score calculation using cross person data yielding an <i>idealization</i> score of couple forgiveness.	
MRF – FSR = His valuation of his partner's forgiveness minus her self-report	
FRM – MSR = Her valuation of partner's forgiveness minus his self-report	
Discrepancy scores transformed into absolute values for shared reality scores	
Type I-D (ABS) Same as Type I-D except the couple final score is expressed as an absolute number.	
ABS (MRF-MSR) = Within person discrepancy for the male	
ABS (FRM-FSR) = Within person discrepancy for the female	
Type II-D (ABS) Same as Type II-D except the couple final score is expressed as an absolute number.	
ABS (MRF-FSR) = Across person discrepancy regarding the female	
ABS (FRM-MSR) = Across person discrepancy regarding the male	

enhancement of perceived affability ratings in predicting relational satisfaction. They suggested that original predictor ratings could be transformed into new variables by taking the differences of the original variables. Busby, et al. proposed that *subtracting* the female's self-rating (for example) of her own forgiveness from her rating of her partner's forgiveness "resulted in a scale in which a high score was a positive number that equaled the degree to which the participant enhanced the partner above the self, whereas a low score was a negative value that indicated the degree to which the participant enhanced the self above the partner" (Busby et al. 2009, p. 543). This type of calculation

is labeled Type I-D since it is still a within person subtraction while creating a discrepancy score.

Type II-D calculations are also discrepancy score computations but are across partners. This cross partner subtraction calculation creates a discrepancy score that represents an *idealization* value (Murray et al. 1996). Using female forgiveness as an example, the female's report of her own forgiveness is subtracted from the male's report of her forgiveness, thus a positive score is the level of his idealization in that he sees her as more forgiving than she sees herself. While Type I and Type II-D scores involve a discrepancy score and could be used to address the shared reality concept, theoretically they have typically not been used as a measure of a shared reality as the researchers exploring enhancement and idealization assume that more discrepancy or more enhancement or idealization is better (Busby et al. 2009; Murray et al. 1996).

The final two ways illustrated in Table 1 to calculate discrepancy scores, Type I-D (ABS) and Type II-D (ABS) are the most consistent with the shared reality perspective as they remove directionality from consideration by subtracting either person specific or cross-person evaluations and then calculating an absolute value. The absolute score does not reflect either enhancement or idealization parameters, but, instead, focuses on the absolute amount of difference, or similarity, between the two partners on a given measure.

While this typology helps describe how different researchers have used or can use couple scores, there is not an example in the literature of someone evaluating these different typologies in a comparative way to determine their relative ability to predict relationship outcomes across time. To accomplish this goal it would also be necessary to address the potential confusion when assessing the difference between general marital quality and a more specific construct like forgiveness. Fincham et al. (2004) tackled this confound directly and showed that it is essential to control for overall marital quality of both partners in the relationship and provide a test of "surplus conceptual value." They conclusively showed that the forgiveness construct was of sufficient strength (net of a general marital quality measure) that it should be assessed separately. Consequently, it is important to examine marital quality over time while controlling for initial levels of marital quality.

In summary, our primary goal for this study was to explore the common ways that researchers have combined couple scores to evaluate the shared reality concept as well as other common constructs like idealization and enhancement. We accomplished this goal by using forgiveness scores from both partners and combining them in the most common ways they have been used in the literature to evaluate their influence on marital quality measures across time. If having a shared reality is important we would

expect the scores using various types of discrepancies to be better predictors of relationship quality.

Method

Participants

The participants for this study were taken from Wave I and Wave III of the Flourishing Families Project (FFP). A period of two years elapsed between the collection of Wave I data and Wave III. We used Wave I and III for two reasons. First, the full measures of forgiveness were not assessed at Wave II, and second, we wanted a longer timeframe than just one year between waves to give a better evaluation of the potentially enduring influence of forgiveness across time.

At Wave I, the sample in this study consisted of 500 (163 single parent and 337 two-parent) families. Our yearly retention rate was high: during Wave III 96% completed the survey process ($N = 478$, 154 single parent and 324 two-parent families). The most frequent reasons cited by families for not wanting to participate in the study were lack of time and concerns about privacy. There were very few missing data at either time point. However, full information maximum likelihood was used to deal with missing values where necessary. For the current study, only married couples were used in the analysis resulting in a final sample of 324.

Regarding ethnicity, 86% of fathers, 75% of mothers, and 69% of children were European American; 6% of fathers, 14% of mothers, and 13% of children were African American; and 8% of fathers, 11% of mothers, and 18% of children were from other ethnic groups or were multiethnic. Seventy percent of fathers and 59% of mothers reported having a bachelor's degree or higher. Average monthly income ratio at Wave I (ratio of income to number of family members living on that income) for fathers was \$1569.83 ($SD = 885.18$) and for mothers was \$1415.92 ($SD = 893.93$).

Procedures

The FFP project is an ongoing longitudinal study of inner family life. Participants for the FFP were randomly selected from targeted census tracts in a large Northwestern city, and were identified using a national commercial database of families. Families were interviewed in their homes. Each interview consisted of a video task (not reported here) and administration of questionnaires completed by the wife and husband. Our overall response rate of eligible families at Wave I was 68% (for more information on the procedures and sample see Padilla-Walker et al. 2011).

Measures

Couple forgiveness

The forgiveness scales used in this research were adapted from the overall work of McCullough et al. (1997), and McCullough et al. (1998). While their research measured motivations for forgiveness and often asked about specific instances of injury and forgiveness, they emphasized the importance of being able to give up hurt and resentment and move forward. Our purpose in measuring forgiveness was not to ask about specific instances of injury and getting past that specific injury, rather it was to assess overall tendencies of forgiveness in each partner including the ability to give up hurt and resentment and move forward. Consequently, we adapted two questions from measures they used from Wade's (1989) work about moving forward and letting go of hurt and resentment and added a third item about the ability to forgive. Each member of the couple responded to six questions measuring forgiveness. There were three items tapping the degree to which the person extended forgiveness to their partner and three parallel items assessing the amount of forgiveness received from their partner. These items were used as indicators of latent variables for self-reported forgiveness and perceived partner forgiveness for both the male and the female in the relationship. Respondents were asked "When my Partner angers me or hurts my feelings:

1. I can forgive him/her pretty easily.
2. I can still move forward and have a good relationship.
3. I give up the hurt and resentment toward him/her.
Or, when I am angry or when I hurt my Partner's feelings:
4. He/she can forgive me pretty easily.
5. He/she can still move forward and have a good relationship.
6. He/she gives up the hurt and resentment toward me.

Respondents were asked to rate each item on a 7-point Likert scale ranging from 1 (*not true at all of me*) to 7 (*very true of me*). For our first research question four latent variables were constructed to represent the self and partner forgiveness of males and females and each latent variable had three observed indicators. For each respondent, correlated measurement errors were included between the items with corresponding wording for the self and the partner.

Marital quality

Marital quality was assessed using a 5-item modified version of the Norton Quality Marriage Index (QMI; Norton 1983). The original QMI originally included the word

“marriage” for questions 1 and 3 and since some couples in the larger sample were not married this word was replaced by “relationship.” Only the first five of the six items of the QMI were used. The final modification was to change the response scale as the original measure used a 7-point scale and some items had percentage-based responses. To avoid confusion and make the response scale consistent with the rest of the couple measures in the questionnaire, the responses for this study were based on a 6-point Likert scale ranging from 1 (*very strongly disagree*) to 6 (*very strongly agree*). A few sample items include, “We have a good relationship,” and “My relationship with my partner is very stable.”

Data Analyses

The models in this study were evaluated through structural equation modeling in Mplus, 6.11 (Muthen and Muthen 2010). Missing data were handled through the maximum likelihood estimation method. For each respondent, correlated measurement errors were included between the items with corresponding wording at Wave I and Wave III. The Wave I marital quality latent variables for males and females were regressed on the four forgiveness latent variables, and the Wave III marital quality latent variables were regressed on Wave I marital quality as well as the forgiveness latent variables.

Results

The effects of forgiveness at Wave I illustrate concurrent prediction of marital quality. By contrast, the effects at Wave III represent the effects of forgiveness on the change in marital quality between Wave I and Wave III. The original structural equation model fit the data well, $X^2(420) = 791.229$, $p < 0.001$, CFI = 0.979, and RMSEA = 0.043. In addition, this model demonstrated strong standardized factor loadings (see Table 2).

Measurement invariance was tested by constraining the corresponding (unstandardized) factor loadings to be equal for female self-report of forgiveness, female report of male forgiveness, male self-report of forgiveness, and male report of female forgiveness. Similar constraints were also imposed on marital quality reported by females at Wave I and III, and males at Wave I and III. The results indicated that the loadings did not differ from each other across reporter, target, gender, or occasion $X^2_{diff}(18) p = 0.103$. The final constrained model with equal factor loadings also fit the data well, $X^2(438) = 817.088$, $p < 0.001$, CFI = 0.979, and RMSEA = 0.043 (see Table 2).

Overall, we found that for both males and females, concurrent (Wave I) prediction of marital quality by

Table 2 Standardized factor loadings: for forgiveness and marital quality

	Female		Male	
	Self	Partner	Self	Partner
Forgiveness				
...can forgive... pretty easily	0.802	0.894	0.800	0.860
...can still move forward and have a good relationship	0.831	0.909	0.879	0.917
---give(s) up the hurt and resentment toward	0.783	0.867	0.719	0.859
Marital quality	Female		Male	
	Wave I	Wave III	Wave I	Wave III
We had a good relationship	0.945	0.947	0.963	0.938
My relationship with my partner is very stable	0.943	0.943	0.931	0.916
Our relationship is strong	0.974	0.970	0.930	0.961
My relationship with my partner makes me happy	0.929	0.944	0.917	0.919
I really feel like part of a team with my partner	0.893	0.902	0.889	0.872

forgiveness showed significant effects of all of the predictor variables except the individual’s self-report on the partner’s marital quality (see Table 3). Notably, the female’s report of the male’s forgiveness and the male’s report of the female’s forgiveness were significantly and positively related to marital quality reported by both females and males. Longitudinally, the direction of the associations showed that improvement in one’s marital quality was influenced by one’s own self-reported forgiveness, but not by the partner’s self-report of forgiveness. When controlling for the other variables, the female’s report of the male’s forgiveness was related to improvement in marital quality for both females and males and was the largest longitudinal predictor. On the other hand, the effect of the male’s report of the female’s forgiveness was not significant for either females or males. In this longitudinal analysis, Wave III marital quality was also strongly influenced by one’s own marital quality from Wave I, but was not significantly associated with prior marital quality as reported by one’s partner (see Table 3).

Our primary research aim was to determine whether it matters how forgiveness scores are calculated and how combining scores or using a discrepancy score approach would inform the shared reality idea explained earlier. Four main forgiveness variables were used to predict marital quality: (1) the female’s self-report of forgiveness, FSR, (2) the female’s report of the male’s forgiveness, FRM, (3) the male’s self-report of forgiveness, MSR, and (4) the male’s report of the female’s forgiveness, MRF. Models were

Table 3 Concurrent and longitudinal effects of forgiveness on marital quality (Type I): Unstandardized regression coefficients (with standard errors)

	Marital Quality Wave I		Marital Quality Wave III	
	Female	Male	Female	Male
Female self-report	0.200 (0.050)***	0.030 (0.044)	0.144 (0.054)**	0.074 (0.047)
Female report of male	0.219 (0.041)***	0.127 (0.036)***	0.147 (0.043)***	0.097 (0.037)**
Male self-report	0.014 (0.058)	0.197 (0.051)***	0.029 (0.060)	0.130 (0.052)*
Male report of female	0.141 (0.042)***	0.263 (0.037)***	0.028 (0.046)	0.065 (0.040)
Female Marital Quality (Wave I)			0.396 (0.054)***	0.057 (0.048)
Male Marital Quality (Wave I)			0.088 (0.060)	0.393 (0.052)***
R-Square	0.328	0.428	0.421	0.473

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

estimated predicting marital quality for males and females both concurrently (Wave I) and longitudinally (Wave III). The longitudinal model also controlled for prior marital quality and models the effects of forgiveness on the change in marital quality between the two occasions.

Table 1 gives the basic formulas for calculating Type I and Type II combined scores including the enhancement, idealization, and associated measures based on the four component ratings utilized in this and other studies. Both the enhancement and idealization approaches represent alternate re-expressions of the four original ratings. In predictive models, using the transformed enhancement or idealization variables as predictors is also equivalent to conducting tests on the corresponding linear combinations or contrasts of the estimated parameters from the model containing the four original components.

Combined Effects and Directional Enhancement and Idealization Effects

Applying the combined effects and the directional approach to the data from the present study yields the results in Table 4. Both male and female perceptions of couple forgiveness (Type I and II) were concurrently and longitudinally related to the marital quality of both males and females, except that the effect of the male's perception of couple forgiveness was unrelated to female marital quality. None of the partner enhancement (Type I-D) effects were statistically significant (see Table 4 for statistical detail).

Partner idealization effects (Type II-D) were significant at Wave I for the effect of idealized male forgiveness on female marital quality and the effect of idealized female forgiveness on male marital quality. Neither of the other Wave I effects (Type II-D) male forgiveness on male marital quality or the effect of idealized female forgiveness (Type II-D) on female marital quality were significant, nor were any of the Wave III partner idealization effects.

Type I-D (ABS) and Type II-D (ABS) Non-directional effects

Again, Type I-D and Type II-D effects represent directional discrepancy hypotheses such that greater partner enhancement or idealization is expected to be associated with higher values of a given outcome variable. In contrast, it is possible to formulate non-directional discrepancy hypotheses when the absolute amount of the discrepancy, regardless of its direction, is believed to affect the outcome (Type I-D [ABS] and Type II-D [ABS]). For example, with a non-directional hypothesis, outcomes are expected to be higher for those who perceive their partner's forgiveness to be similar to their own.

To investigate such non-directional discrepancy effects, the model for the present study was similarly extended to examine non-directional absolute discrepancies associated with both partner enhancement (the sum of the absolute differences between ratings of one's partner and one's own self ratings), and partner idealization (the sum of the absolute differences between one's ratings of the partner and the partner's self ratings). The results of these analyses are presented in the second half of Table 4. Separate analyses were conducted for Type I-D (ABS) and Type II-D (ABS) scores. At both Wave I and Wave III, these analyses controlled for the four original forgiveness ratings, and the Wave III analysis also controlled for Wave I marital quality. The effect of Type I-D (ABS) within person discrepancy calculations were significant only for the effect of female partner/self enhancement of male forgiveness on female marital quality at Wave III, and none of the effects of male partner Type I-D (ABS) within person discrepancy scores were significant. Type II-D (ABS) across person discrepancy scores for male forgiveness were related to both male and female marital quality at Wave I, and to female marital quality at Wave III. However, none of the Type II-D (ABS) across person discrepancy assessments for female forgiveness were significant.

Table 4 Evaluation of combined and directional forgiveness scores on marital quality at Wave I and III: Unstandardized regression coefficients (with standard errors)

	Marital Quality Wave I		Marital Quality Wave III	
	Female	Male	Female	Male
<i>Type I-forgiveness</i>				
Male perception of couple forgiveness (MSR + MRF)	0.155 (0.046)***	0.461 (0.041)***	0.057 (0.056)	0.195 (0.048)***
Female perception of couple forgiveness (FSR + FRM)	0.429 (0.045)***	0.157 (0.039)***	0.290 (0.053)***	0.172 (0.047)***
<i>Type II forgiveness</i>				
Combined perception of female forgiveness (MRF + FSR)	0.351 (0.048)***	0.293 (0.042)***	0.171 (0.056)**	0.139 (0.048)**
Combined perception of male forgiveness (FRM + MSR)	0.233 (0.053)***	0.324 (0.047)***	0.176 (0.059)**	0.228 (0.051)***
<i>Type I-D forgiveness enhancement</i>				
Male enhancement of female forgiveness (MRF-MSR)	0.127 (0.090)	0.066 (0.079)	−0.002 (0.091)	−0.065 (0.078)
Female enhancement of male forgiveness (FRM-FSR)	0.009 (0.080)	0.097(0.070)	0.003 (0.082)	0.023 (0.071)
<i>Type II-D forgiveness idealization</i>				
Male idealization of female forgiveness (MRF-FSR)	−0.069 (0.079)	0.233 (0.069)***	−0.116 (0.084)	−0.009 (0.072)
Female idealization of male forgiveness (FRM-MSR)	0.205 (0.084)*	−0.070 (0.074)	0.117 (0.087)	−0.033 (0.074)
<i>Type I-D (ABS) absolute value partner/self enhancement</i>				
Within person discrepancy for the male ABS(MRF-MSR)	−0.025 (0.072)	−0.036 (0.068)	0.025 (0.069)	−0.027 (0.067)
Within person discrepancy for the female ABS(FRM-FSR)	0.020 (0.047)	0.018 (0.044)	0.100 (0.045)*	0.004 (0.044)
<i>Type II-D (ABS) absolute value partner/self idealization</i>				
Across person discrepancy regarding the female ABS (MRF-FSR)	0.036 (0.051)	0.005 (.048)	−0.031 (0.050)	0.007 (0.049)
Across person discrepancy regarding the male ABS (FRM-MSR)	0.111(0.050)*	0.107 (0.047)*	0.113 (0.049)*	0.069 (0.048)

SR female self-report of forgiveness, FRM female report of male forgiveness, MSR male self-report of forgiveness, MRF male report of female forgiveness

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Discussion

Our research interest about a shared reality suggested that participant's ratings of forgiveness using idealization, enhancement, or absolute scores (net of previous marital quality and controls) would be significantly and negatively associated with decreases in relationships outcomes. Our results indicated that almost none of the Type I-D scores significantly predicted marital outcomes at Wave III. Instead, the primary story of these findings is that Type I and Type II combination scores were important predictors of marital quality both concurrently and over time (refer to Table 4). While many researchers have suggested that difference scores were a key element in understanding couple well-being, these data do not support that hypothesis. Regardless of our various computation strategies (enhancement, idealization, or absolute scores) none of these computations held as predictors of marital quality initially or over time. One possible explanation for these findings that are distinct from other findings on differences and discrepancies (Busby et al. 2009; Schaffnuser et al. 2016) is that forgiveness is an inherently relational construct whereas most of the other variables measured in previous

research were individual personality characteristics. It may be that when an individual rates the overall personality of a partner, differences are more important than when they are rating something as relational as forgiveness. Forgiveness is so deeply relational in nature, requiring one partner to injure and make amends and the other partner to accept those amends, that it could be that the individual's perceptions of this phenomenon require the individual to tap into the relational dynamics when they rate self and partner, hence their significant association with couple outcomes. This also explains why the combination variables have the strongest significance as they are essentially indicating that more forgiveness is better. This is in contrast to ratings of personality such as agreeableness, openness, or neuroticism which tap into individual attributes so when differences are calculated this approaches the relational domain more directly than the individual ratings and becomes significant with relational outcomes, whereas perhaps with forgiveness all the relational variance is already captured in the individual and combined scores.

Another implication of these findings is that researchers need to reexamine the notion that differences in perception within or between partners is as important as the raw,

combined amount of forgiveness in the relationship. As was discussed before, shared reality theory posits the opposite and theorizes that couple-level variables inhabit a relationship independent of the person's personal evaluation. In contrast Jesse Bernard (Bernard 1982) once opined that there was a "his and her" marriage. That is, the world of marriage was not to be found in an overlapping Venn diagram wherein the 'real' relationship was the overlapping segment of a shared sense of the couple. Instead, she suggested that there was basically his view of things and her view of things and not much in between. In some ways this perspective is supported by these data. While we did find overlap and there were couples whose views about themselves were apparently shared by their partners, the shared parts (no matter how assessed) seemed to have little predictive power in explaining quality in marriage.

Furthermore, the most powerful assessments of forgiveness in our data were the scores assessed by the women. Her assessment of the level of forgiveness (of herself and especially of her partner) resulted in higher predictive coefficients for marital quality at Wave I and at Wave III. Based on these data, one could have asked her only about the level of forgiveness of both marriage partners and captured the bulk of the explainable variance with regard to how forgiveness maps onto marital quality. In particular, her view of his forgiveness was the variable that consistently factored into marital quality outcomes. Said differently, men's view of forgiveness (from an individual or relational computation) did not add much in explanation. This finding is in keeping with a theme in *Women's Reflections on the Complexities of Forgiveness* (Malcom et al. 2008). These authors subscribe to the notion that forgiveness is closely tied to gender, and their research indicates that women are more attuned to the subtle relational dynamics of transgression and forgiveness. We would add that future explorations consider the role of power differences between men and women in close relational exchanges about forgiveness and attention to transgression in general.

In like manner, the gender differences we found are similar to those reported in a meta-analysis about gender and forgiveness (Miller et al. 2008). They propose that gender differences are generally found in the forgiveness research. The effect sizes for gender and forgiveness are small but significant, and the benign neglect by researchers of these effects has led to an under examination of gender differences in forgiveness research especially with regard to its implications about power imbalance in relational exchanges. Certainly, we see the future exploration of men's and women's views of forgiveness as an important research need.

Miller et al. (2008) suggest there are several possible reasons why women may be more forgiving than men and,

as is the case in our data, why women's reports about forgiveness are more predictive of later marital outcomes than men's reports. First, as they propose that women often report more religiousness than men, and consequently may be more likely to see forgiveness as a necessary element in relationship maintenance. In the current sample from a previous study, women were more likely to report that religion was more important to their daily lives than were men and were significantly more likely to report increased religious practice than were men (Burr et al. 2011). In the same study, it was found that there was a weak but significant association between increased religious practices (e.g., saying prayers and reading scriptures) and level of forgiveness. Future researchers should also consider the interactions among gender, religious practice, and forgiveness reports.

Second Miller et al. indicate that women are more aware of the importance of forgiveness because of a cultural orientation of women toward "the ethic of care" (Miller et al. 2008 p. 865). Along those lines, Miller et al. speculate that women and men typically perceive transgression differently. That is, men and women may interpret different types of transgressions differentially with regard to severity. Certainly, a limitation of the current study is that we asked about the general trait characteristic of forgiveness and did not delve into specific cases or incidences of transgression and response.

Finally, potential dispositional psychological variables are another possible reason for gender differences in how men and women may differentially use or process forgiveness. These types of individual traits can be agreeableness and neuroticism (von Collani and Werner 2005) and dispositional empathy (Trobst et al. 1994). Miller et al. (2008) suggest that researchers carefully control for these kinds of dispositional traits in mediation and moderation models when considering the effects of forgiveness on outcomes.

We suggest that the gender differences found here should prompt researchers to also consider theoretical orientations that may partially explain how men and women identify and interpret transgressions, apologies, and forgiveness in marriage. For example, polarization processes (Baucom and Atkins 2013) describe how partners magnify and amplify relational distress while problem solving or seeking resolution in times of stress from life changes. As behavior responses amplify in negative intensity, partners respond with generalized evaluations of hopelessness, dissatisfaction, and even physical and/or emotional separation over time and these responses may vary by gender (McGinn et al. 2009). When this happens, it becomes more difficult for couples to meet common goals and navigate the challenges of daily living (Baucom and Atkins 2013).

Limitations

Our sample is also somewhat unique. It is a robust community sample of intact relationships that are relatively stable across time. Over the six-year period of the study and even through the difficulties of the 2008 economic problems, the vast majority (97%) of these couples remained intact. Perhaps reports from less stable couples may result in different findings.

An additional expansion of this research would be to explore other relational virtues: We have investigated only one relational virtue in this study, namely forgiveness. It is possible that this variable is somehow uniquely suited to self-evaluation as opposed to couple discrepancy assessments. Certainly, it will be important to explore other relational candidates in future research.

In summary, clearly more research about relational virtues within stable couples is called for. There was clear and compelling evidence in these data that forgiveness, net of other controls, was a powerful predictor of marital quality. It may be tempting to think of marital quality as having a variety of components one of which might be forgiveness. However, we found little evidence to support a colinearity hypothesis. These constructs (i.e., quality and forgiveness) appear to be orthogonal. Of course, our data are not strong enough in longitudinal scope to promote the idea of linear causality between quality and forgiveness, but they bundle together strongly enough that further research should consider tracking the emergence of forgiveness as it forms and grows over time in long-term relationships.

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Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All data collection procedures were approved by the institutional review board at Brigham Young University and were in accordance with established ethical standards for institutional and national boards.

Informed Consent All participants completed an appropriate consent form prior to the completion of any data collection.

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