

# Sanctification of Marriage and Spiritual Intimacy Predicting Observed Marital Interactions Across the Transition to Parenthood

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We examined whether 164 heterosexual, married couples' reports of the sanctification of their marriage and their spiritual intimacy predicted their observed behavior across the transition to parenthood, using highly conservative statistical strategies to control for time-invariant factors and time-varying factors (marital love, collaborative communication skills) that could explain away these links. Spouses provided self-reports of marital sanctification and love, and joint reports of spiritual intimacy and collaboration by each partner. Criterion variables were positive and negative behaviors that spouses exhibited during dyadic discussions of marital conflicts, videotaped during pregnancy and when the couple's first infant was 3, 6, and 12 months old. Using bivariate fixed-effects regression models to control unmeasured time-invariant predictors (e.g., stable traits), his and her sanctification of marriage predicted more observed positivity by 1 or both spouses, and his and her spiritual intimacy predicted more positivity and less negativity by both spouses. Using multivariate regression analyses that controlled for demographic factors, the interdependency of spouses' responses, and salient time-varying marital (spouses' love and collaborative skills), her spiritual intimacy predicted more positivity by both spouses and less negativity by him, and his sanctification marginally predicted more positivity and less negativity by him. Findings offer rigorous causal modeling that spousal reports about marital spirituality influence observed spousal behavior by using longitudinal data to rule out unmeasured and measured third-variable confounds, multiple reporters (husbands, wives), multiple methods (self and joint reports, direct observation), and cross-informant data (spousal reports about him predicting her behavior, and vice versa).

**Keywords:** marriage, religion, spiritual intimacy, sanctification, spirituality

Across the transition into parenthood, married couples report increased conflicts (Cowan & Cowan, 2000; Doss, Rhoades, Stanley, & Markman, 2009; Kluwer & Johnson, 2007) and have been observed to display greater negativity and less positivity when discussing conflicts from the time they are pregnant to their child's first birthday (Cox, Paley, Burchinal, & Payne, 1999). In turn, observed negativity in couples' communication processes longitudinally predicts greater marital dissatisfaction and risk of divorce (e.g., Gottman, Coan, Carrere, & Swanson, 1998; Markman, Rhoades, Stanley, Ragan & Whitton, 2010). Thus, researchers have begun to try to identify marital factors that motivate couples to treat each other in a more positive and less hostile manner during conflicts. Given that major world religions have long en-

couraged couples to conceive and raise children in the context of a stable marriage where coparents relate to one another in a positive manner, we examined whether two marital spirituality constructs (sanctification of marriage, spiritual intimacy) predicted observed spousal behavior during conflictual interactions of 164 married heterosexuals across the transition to parenthood, using highly conservative statistical strategies to control two salient time-varying factors (marital love, collaboration skills) and time-invariant heterogeneity (i.e., unmeasured characteristics of individuals or couples that affect both the predictor and criterion in the model) that could explain away these links.

## Transition to Parenthood Increases Marital Conflicts and Poor Communication Processes

Across the transition into parenthood, married heterosexuals report declines in marital satisfaction (Belsky & Kelly, 1994; Doss et al., 2009; Lawrence, Rothman, Cobb, Rothman, & Bradbury, 2008; Mitnick, Heyman, & Smith Slep, 2009) and more frequent marital conflicts (Kluwer & Johnson, 2007; Cowan & Cowan, 2000; Doss et al., 2009). The topic of infant-care responsibilities (i.e., parenting) represents a new source of potential dispute when spouses become coparents. In addition, this stage of family life can bring previously unresolved disagreements to the surface or trigger conflict about prior areas of harmony. Salient topics that often require renegotiation by new coparents include the division of household chores, time, and finances. Ideally, couples would use effective strategies of communication to negotiate conflicts they are likely to encounter as they adjust to parenthood, such as

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self-expression (e.g., using “I” statements, sending clear messages) and compromising (e.g., accepting blame, making concessions). However, observational studies show that first-time, married parents display greater negativity and less positivity when discussing conflicts from the time they are pregnant to their child’s first birthday (Cox et al., 1999). Further, observed negativity in couples’ communication processes longitudinally predicts greater risk of divorce and self-reported marital dissatisfaction (e.g., Markman et al., 2010), including among couples who are happily married in their initial years of marriage (Lavner & Bradbury, 2012). Although premarital and marital intervention studies show that couples can learn or know effective ways to negotiate conflicts (Fawcett, Hawkins, Blanchard, & Carroll, 2010; McAllister, Duncan, & Hawkins, 2012), many couples do not use skills within their repertoires when embroiled in disagreements (Fincham & Beach, 1999; Fincham, Stanley, & Beach, 2007). Thus, researchers have begun to search for malleable factors, besides the knowledge or mastery of communication skills, that motivate couples to exhibit positivity and avoid negativity when discussing conflicts (Bradbury & Karney, 2004; Fincham et al., 2007).

### **Marital Spirituality to Motivate Couples to Effectively Negotiate Conflicts**

**Introduction to religion/spirituality across the transition to parenthood.** Religion and spirituality represent one domain that may motivate couples to handle their conflicts effectively across the transition to parenthood. Major world religions have long taught that conceiving and raising a child within a permanent marriage, as well as being good role models for offspring are highly valued and spiritually significant goals in life for women and men (Mahoney, 2010, 2013). Thus, spouses who are more involved in organized religion may be more motivated to act toward each other in ways that protect and preserve their marriage when they transition from being childless to being coparents. Indirect evidence supports this idea. For example, in quantitative studies conducted between 1980 and 2009, higher religious attendance and/or greater importance of religion by one or both spouses was repeatedly correlated with greater marital satisfaction, and greater religious involvement was tied to lower divorce rates (Mahoney, 2010; Mahoney, Pargament, Tarakeshwar, & Swank, 2001). These findings hint that married couples may draw upon spiritual beliefs or behaviors promoted by (or outside of) organized religion to motivate them to manage conflicts well. Yet greater religious involvement has not been consistently linked to the frequency of marital conflicts or conflict resolution strategies (Mahoney et al., 1999; Mahoney, 2010).

Furthermore, studies on religion and spirituality across the transition to parenthood have focused on linking brief self-reports about religious involvement to single-item, self-reports of marital satisfaction. For example, Nock, Sanchez, and Wright (2008) found that a four-item measure of private prayer, importance of religion, and individual and joint religious attendance related to greater maternal, but not paternal, marital satisfaction over the transition. In a study of mothers, frequent attendance at religious services while pregnant predicted less postpartum declines in marital satisfaction than infrequent or no attendance (Dew & Wilcox, 2011). However, Doss et al. (2009) found that a one-item measure of religious involvement before the birth of a first child

did not predict later changes in marital satisfaction. Although 75–80% of quantitative studies on faith and marriage from 1980–2009 likewise relied on brief measures about religion (and marriage), such indices are problematic for two reasons. First, their limited variability may contribute to null results. Second, and more important, such indices fail to reveal specific spiritual cognitions or behaviors tied to a marriage or intimate relationship that may motivate partners to treat each other well. Conceptually based and in-depth measures of malleable spiritual constructs are needed to offer direct evidence that some aspects of spirituality may help couples manage their conflicts effectively, recognizing that other spiritual factors may escalate conflict (Mahoney, 2010, 2013).

**Sanctification of marriage.** The construct of sanctification represents one specific and conceptually grounded spiritual cognition that may inspire heterosexual and same-sex couples to behave well during conflictual interactions (Mahoney, 2013). Sanctification refers to perceiving an aspect of life, such as one’s marriage or union, as having divine significance and character (Mahoney, Pargament, & Hernandez, 2013). Community and national surveys have found that most married Americans view their union as having sacred qualities, such as holy, blessed, sacred (i.e., nontheistic sanctification), and as being a manifestation of a higher power (i.e., theistic sanctification) to some degree (e.g., Ellison, Henderson, Glenn, & Harkrider, 2011; Lichter & Carmalt, 2009; Mahoney et al., 1999). In these studies, greater sanctification of marriage has been correlated with marital satisfaction, even after controlling for demographics and spouses’ general religiousness. Another study found spouses’ reports of greater sanctification of their marriage correlated with greater self-reported collaborative problem-solving skills to handle conflicts (Mahoney et al., 1999). These findings imply that greater perceived sanctity of marriage could motivate first-time parents to inhibit negativity and engage in positive strategies to manage conflictual marital interactions despite the stressors of new parenthood. Theoretically, viewing one’s marriage in a sacred light would motivate new parents to manage conflicts well because the loss or deterioration of their bond would entail relatively higher spiritual and psychological costs to themselves and their children.

**Spiritual intimacy.** Researchers have begun to investigate intimacy as a construct that is tied to couples’ investments in their unions (Cordova, Gee, & Warren, 2005) and thus may also motivate heterosexual and same-sex couples to manage their conflicts effectively. Intimacy reflects the extent to which partners disclose highly sensitive and emotionally laden information, as well as respond to each other’s disclosures in a supportive, nonjudgmental manner (Cordova, 2009). Religious and spiritual issues represent particularly controversial topics that call for intimacy skills. Sharing one’s spiritual identity involves disclosing experiences or beliefs that cannot be proven as ontologically “true,” but tap into one’s most profound concerns and ultimate desires. People may hesitate to reveal such information for fears of being dismissed, ridiculed, or misunderstood. Conversely, eliciting such disclosures from a partner requires responding in an open-minded, empathic, and nonpunishing manner. In the present study, we created a measure of each spouse’s spiritual intimacy skills, defined here as engaging in spiritual disclosure and providing support when a partner offers spiritual disclosures. Hypothetically, greater spiritual intimacy may foster people’s sense that they have found a special “soul mate” with whom they can share their deepest

spiritual aspirations and hopes as well as their doubts, troubles, or struggles. Having spiritually intimate dialogues may thus facilitate spouses' investments in their unions and motivate them to protect their marriages when conflicts occur during stressful family transitions, such as the transition to parenthood. One component of spiritual intimacy, spiritual disclosure, has previously been examined and correlated with greater collaborative problem solving to manage conflict by college students and their mothers (Brelsford & Mahoney, 2008), but this is the first study to take a broader look at spiritual intimacy within a marital context.

### **Ruling out Competing Explanations for Marital Spirituality as a Motivator of Behavior**

**Self-report biases.** Links between self-reports of higher religious attendance and prosocial behavior within the subfield of the psychology of religion and spirituality have been criticized as being driven by self-report biases, whereby people who report religious involvement may also report virtuous behavior (Mahoney et al., 1999, 2013). Likewise, one could argue that sanctification or spiritual disclosure has previously been tied to better marital or parent-child functioning because self-report data were used for both predictors and criterion variables. Thus, consistent with renewed calls for social scientists to employ direct observations of peoples' behavior (Baumeister, Vohs & Funder, 2007), we observed how spouses treated each other when discussing conflicts. Given that religious traditions herald the spiritual significance of couples giving birth in the context of a good marriage, the transition to parenthood offers a revealing window of family life to observe whether self-reported spiritual beliefs or behaviors about marriage predict observed marital conduct. Further, to our knowledge, this study is the first to test whether any self-reported marital factors predict observed dyadic conflicts of couples across the transition to parenthood, and it contributes to the scarcity of longitudinal studies aimed at predicting observed husband-wife conflicts at any stage of marriage (Lavner & Bradbury, 2012). Finally, although sanctification of marriage inherently involves participants' subjective perceptions, we combined spouses' self-reports of spiritual intimacy to rule out solo reporter bias in assessing this behaviorally defined construct.

**Time-invariant third factors.** A challenge to link spiritual constructs to observed marital interactions is that stable characteristics of the couple or spouses may drive associations between any pair of constructs. For example, sanctification could be correlated with couples' behavior due to spouses' stable positive regard for one another, or with the personality traits or intelligence of either partner. A statistical approach to rule out that time-invariant, unmeasured factors operate as unseen "third variables" that account for the correlation between any two factors is to use multiple waves of data to conduct fixed-effects regression analyses; such analyses control for time-invariant heterogeneity (i.e., unmeasured characteristics of individuals or couples that affect both the predictor and criterion variables). Such analyses thus offer a rigorous causal modeling of links between two variables when randomized, experimental designs are unethical or impractical. In this study, we took advantage of having coded four waves of observed marital behavior to use fixed-effects regression models to test whether sanctification and spiritual intimacy each predicted how spouses behaved after controlling for all time-invariant confounds.

**Time-varying, nonspiritual constructs.** Another challenge in verifying that marital spirituality matters is to demonstrate that constructs such as sanctification or spiritual intimacy uniquely predict observed behavior beyond the interdependency of spouses' responses, as well as other time-varying marital constructs that may shape spouses' behavior. In this study, we selected two time-varying marital constructs that we assumed would be robustly predictive of observed marital interactions and thus operate as rigorous control variables in multivariate regression analyses. First, consistent with marital education and intervention programs, we assumed that couples' joint reports of their own and their spouse's use of collaborative skills to negotiate conflicts would predict spouses' observed communication patterns. Second, we assessed each spouse's felt "love-interdependence" for his or her spouse using Braiker and Kelly's (1979) measure, which assesses perceptions of love, closeness, attachment, commitment, and sexual attraction to a partner; this construct has been found to be a sensitive barometer of declines in marital well-being across the transition to parenthood (e.g., Belsky, Lang, & Rovine, 1985) and early marriage (e.g., Huston, Caughlin, Houts, Smith, & George, 2001). According to Braiker and Kelly's (1979) model of marriage, partners with greater love should display more positivity and less negativity during conflicts because they are motivated by the goals to (a) sustain relationships that fulfill a highly valued role or ideal in their own and their partners' lives and (b) protect their self-images as people who behave in loving ways. Although we were unable to find studies that have linked self-reported love for spouse to observed communication patterns, lower self-reported love predicts divorce (Huston et al., 2001) and falling out of love is one of the major reasons people give for divorce (Amato & Hohmann-Marriott, 2007). Thus, we expected that greater self-reported love for spouse would predict more observed positivity and less negativity.

### **Summary of Study Goals and Hypotheses**

Our major goal was to test rigorously whether marital spirituality influences marital interactions as heterosexual, married couples make the transition to parenthood. To reach this goal, we assessed two conceptually based constructs within the domain of marital spirituality, sanctification of marriage and spiritual intimacy, rather than rely on brief measures of individual religiosity. Further, rather than rely on couples' reports of how they treat each other during conflict laden interactions, we directly observed their conduct when the pair discussed their top three marital conflicts. We hypothesized that spouses' self-reports of the sanctity of their marriages and their joint reports of the other's spiritual intimacy skills would each be correlated cross-sectionally with more positive and less negative behavior by each spouse during dyadic interactions, which were videotaped during late pregnancy and when the couples' first infants were 3, 6, and 12 months old. We then employed two rigorous statistical causal modeling strategies to test these associations. First, we took advantage of having four waves of data to conduct bivariate fixed-effects regression analyses to rule out time-invariant, third factors that may drive associations between spousal reports of marital spirituality and their observed behavior. Next we conducted multivariate regression analyses to control for unmeasured, time-invariant confounds, the interdependency of spouses' reports, and two other salient, time-

varying marital constructs that are also likely to shape observed marital interactions: each spouse's reports of love for his or her spouse, and spouses' joint reports of their partners' use of collaborative skills to manage conflicts. We ran cross-informant analyses in which each partner's reports about his or her spouse was used to predict the other spouse's observed behavior (e.g., husband sanctification predicting his wife's behavior), thereby ruling out single-reporter bias, which has hampered prior scientific efforts to link spirituality to marital outcomes. To provide a balanced perspective on the effect sizes for the two spiritual constructs, we subjected the two nonspiritual marital constructs (i.e., love and collaborative skills) to the same rigorous methodological and statistical strategies, expecting both constructs also to predict observed marital behavior in bivariate and multivariate models.

## Method

### Participants

Participants were 164 married husbands and wives who underwent the transition to parenthood with the birth of each couple's first biological child. The mean ages of husbands and wives, respectively, were 28.7 ( $SD = 4.4$ ) and  $M = 27.2$  ( $SD = 4.0$ ). Self-described ethnicity for wives and husbands, respectively, was 92.0% and 85.0% Caucasian; 3.7% and 5.0% Asian American; 3.7% and 5.5% African American; 0% and 3.7% Latino; and .62% and .62% other. The highest education for husbands and wives, respectively, was 11% and 6% high school only, 28% and 21% partial college or posthigh school education, 42% and 46% college degrees, and 19% and 27% graduate or professional degrees. Household income was broadly distributed as follows: 8% at 0–\$25,000, 29% at \$25,000–50,000, 30% at \$50,000–75,000, 19% at \$75,000–100,000, and 13% at greater than \$100,000. At pregnancy, couples in the sample were married an average of 2.7 years, in a relationship for about 5.9 years and had cohabited for about 3.5 years. The self-reported religious affiliation for wives was 34.7% nondenominational Christian, 30.6% Protestant, 27.1% Catholic, 4.1% none, 2.9% other, and .6% Jewish, and for husbands was 30.0% Protestant, 28.8% nondenominational Christian, 27.6% Catholic, 7.1% none, 5.9% other, and .6% Jewish. Couples were no more involved in organized religion than other married U.S. couples with biological offspring based on national norms of wives' religious attendance (Mahoney, Pargament, & DeMaris, 2009).

### Procedure

Couples were drawn from a midsized, midwestern city and surrounding suburban and rural communities, and recruited primarily from childbirth classes (64%), with the rest responding to announcements posted in medical offices, retail locations, or newspapers (14%); word of mouth referrals (15%); or direct mail (8%). Inclusionary criteria were that spouses were (a) married, (b) pregnant with each individual's first biological child, and (c) both spoke English.

Data were collected in couples' homes. Each spouse read and completed consent forms for the project, which was approved by the university's institutional review board. The couples participated in a 10-min videotaped marital interaction (more details to

follow), and each spouse completed questionnaires with a research assistant present to answer questions and to monitor that spouses independently answered items. Couples were assessed in their 9th month of pregnancy and reassessed three more times over the course of the next year: at 4, 7, and 13 months after the first visit. Couples were paid \$75.00, \$100.00, \$100.00, and \$125.00 for their participation in Waves 1–4, respectively. Relatively little participation attrition occurred, with 164 of the 178 couples who participated during pregnancy completing all four waves.

### Participant-Reported Measures of Major Variables

See Table 1 for means, standard deviations, and reliability data on the reported measures.

**Sanctification of marriage.** We revised the two sanctification subscales from Mahoney et al. (1999) to assess each spouse's sanctification of the marriage. Ten items assessed whether he or she viewed the marriage as having sacred qualities but did not reference a specific deity (e.g., "My marriage is . . . 'sacred to me', 'seems like a miracle to me,' 'part of a larger spiritual plan'"), and 10 items assessed the extent to which the participants agreed that the marriage was a manifestation of God or a higher power (e.g., "God played a role in how I ended up being married to my spouse," "I sense God's presence in my relationship with my spouse"). Items were rated on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) and summed to create a total score. Previous research on the original sanctification of marriage scales found high internal consistency and evidence of convergent and construct validity (Mahoney et al., 1999).

**Spiritual intimacy.** To assess spiritual intimacy, we modified four items from a 20-item index of spiritual disclosure previously used with college students (Brelsford & Mahoney, 2008) so each spouse answered two items about spiritual disclosure about the self and the partner, and we created four new items to assess spiritual support. Thus, each spouse answered the four items about self: "I feel safe being completely open and honest with my spouse about my faith," "I tend to keep my spiritual side private and separate from my marriage (reverse scored)," "I try not to be judgmental or critical when my spouse shares his or her ideas about spirituality," and "I try to be supportive when my spouse discloses spiritual questions or struggles;" and four items about the partner: "My spouse doesn't disclose her or his thoughts or feelings about spirituality with me," (reverse scored), "My spouse shares his or her spiritual questions or struggles with me," "My spouse really knows how to listen when I talk about my spiritual needs, thoughts, and feelings," and "My spouse is supportive when I reveal my spiritual questions or struggles to her or him." Items were rated on a Likert-scale from *not at all* (0) to *a great deal* (3). Husbands' and wives' ratings about their spouses were summed to create joint reports of each spouse's spiritual intimacy skills.

**Marital love.** We used Braiker and Kelley's (1979) 10-item love-interdependence subscale to assess each spouse's felt love for spouse. The 10 items assess the respondent's sense of love for and "belonging" to the spouse, belief that what happens to the spouse also affects or is important to him- or herself, belief that the relationship is special, and the extent of commitment, closeness, sexual intimacy, attachment, need of, and giving to his or her

Table 1  
*Psychometric Properties of Major Measured Study Variables*

Variable	Wives				Husbands			
	T1	T2	T3	T4	T1	T2	T3	T4
Sanctification of marriage (self-report)								
<i>M</i>	109.0	107.3	106.4	102.9	104.4	102.7	101.8	100.1
<i>SD</i>	25.9	26.0	24.7	28.7	26.7	28.9	29.4	27.9
$\alpha$	.97	.97	.97	.98	.97	.98	.98	.97
$r_{wh}$	.59	.61	.65	.64				
Spiritual intimacy (joint report)								
<i>M</i>	18.6	18.2	18.2	18.0	18.0	17.1	17.1	17.2
<i>SD</i>	3.4	3.7	3.6	3.9	3.7	4.0	4.1	3.8
$\alpha$	.67	.72	.67	.72	.73	.73	.76	.70
$r_{wh}$	.70	.69	.67	.65				
Love of spouse (self-report)								
<i>M</i>	83.4	82.4	81.6	80.3	80.4	79.2	78.8	77.7
<i>SD</i>	5.3	6.6	6.4	8.8	6.2	7.6	7.9	9.0
$\alpha$	.77	.84	.82	.90	.79	.84	.88	.88
$r_{wh}$	.35	.24	.32	.42				
Collaboration (joint report)								
<i>M</i>	39.5	39.3	37.6	37.6	39.1	38.6	37.6	37.6
<i>SD</i>	4.8	4.5	5.6	5.3	4.6	5.1	5.5	5.3
$\alpha$	.79	.75	.83	.82	.73	.79	.81	.81
$r_{wh}$	.60	.64	.74	.65				
Negativity (observed)								
<i>M</i>	1.62	1.72	1.93	1.71	1.74	1.69	1.76	1.63
<i>SD</i>	.61	.67	.74	.63	.78	.70	.65	.62
$\alpha$	.91	.92	.93	.89	.94	.92	.91	.89
$r_{wh}$	.58	.54	.65	.55				
Positivity (observed)								
<i>M</i>	2.95	2.59	2.72	2.75	2.81	2.52	2.66	2.62
<i>SD</i>	.65	.65	.62	.65	.81	.71	.68	.72
$\alpha$	.52	.69	.81	.73	.70	.69	.80	.72
$r_{wh}$	.81	.76	.75	.77				

*Note.* T1 = 9th month of pregnancy; T2 = infant 3 months old; T3 = infant 6 months old; T4 = infant 12 months old.  $\alpha$  = Cronbach coefficients of participant responses to items or the codes that loaded onto observed constructs;  $r_{wh}$  = Pearson correlations between wives and husbands reports or observed behaviors of wives and husbands.

spouse. Items were rated on a 9-point scale ranging from *not at all* (1) to *very much* (9), and summed to create a total score for each spouse. Previous research of this subscale has indicated good internal consistency and sensitivity to change in marriage across the transition to parenthood (e.g., Belsky et al., 1985).

**Collaborative problem-solving skills.** We used the 8-item collaborative problem-solving subscale from the "Conflict and Problem-Solving Strategies" measure created by Kerig (1996) to assess how often spouses reported they used the following behaviors to resolve conflicts: "Talk it out with the other one," "Express thoughts and feelings openly," "Listen to the other's point of view," "Try to understand what the other is feeling," "Try to reason with the other," "Try to find a solution that meets both of our needs," "Accept the blame, apologize," and "Compromise, meet the other half-way, split the difference." Spouses rated themselves and their spouses on a 4-point scale ranging from *never* (0) to *often* (3). Husbands and wives' ratings of each spouse were summed to create joint reports of each spouse's collaborative problem-solving skills. Previous research on this subscale found good internal consistency, and evidence of convergent and divergent validity (Kerig, 1996).

**Demographics.** Spouses' responses to four demographic items in the surveys were used in multivariate data analyses: respondent's age, highest level of education, duration of marriage, and household income. Husbands' and wives' reports of own age, length of marriage, and income were averaged for analyses. The response options and spouses' answers to these four items are described in the Participants section.

### Spouses' Observed Negative and Positive Behavior During Marital Conflicts

**Eliciting and videotaping conflictual marital interactions.** To identify topics for couples to discuss during the videotaped conflict interactions, both spouses completed a Marital Topics Questionnaire (Mahoney, Boggio, & Jouriles, 1996) to rate the likelihood that each of 20 topics will cause a disagreement and the intensity of conflicts. Nineteen identical topics were assessed at all four time points and were fairly consistently rank-ordered at each time point across the sample, from most to least likely to cause conflict, as follows: division of household chores, financial issues, time management, parents/in-laws, social needs, tidiness, sex,

spouse being stubborn/rigid, poor communication skills, making major purchases, employment changes, religion/spirituality or values, moves, friends, feeling unloved, recreation, jealousy/infidelity, spouse being needy/clingy, and spouse's alcohol/drug use. During pregnancy, another item that asked about being and getting pregnant ranked last (20th) as being likely to cause a conflict. After the infant was born, this item was reworded to ask about "child care and child responsibilities" and this topic ranked as the fourth or fifth most likely to cause a conflict at the subsequent three time points. Each couple's combined likelihood of disagreement ratings was used to identify the three most conflictual topics for that couple to discuss; in cases of ties, the topics with the highest combined intensity rating were selected. For example, child care was identified as one of the top three conflictual topics for 20% to 25% of couples after the infant's birth. Research assistants first instructed the couples to talk about the first topic and to move on to Topics 2 and 3 if time allowed, then briefly primed the interaction by asking spouses about the last time they had a disagreement about the first topic and how each one saw the issue. The research assistants then left the couple alone for 10 min by quietly leaving the house (during pregnancy) or caring for the infant in a different room (Waves 2, 3, and 4).

**Coding of conflict interactions.** Four separate teams of three research assistants coded the four waves of marital interactions using the System for Coding Interactions in Dyads (SCID) created by Malik and Lindahl (2004). Each of the three coders rated each spouse on the following seven codes used in this study on a 5-point scale, ranging from *very low* (1) to *high* (5), with the intraclass correlation coefficient (ICC) for the three coders' ratings on each team at each time point indicated in parentheses: (a) domineering-coercive control (i.e., take a one-up stance toward the partner, attempt to control or change the partner, act in a coercive or bossy manner; ICCs T1 = .85, T2 = .84, T3 = .87, T4 = .89), (b) verbal aggression (i.e., use of name calling, critical or insulting comments, hurtful humor, blaming, mocking comments; ICCs T1 = .85, T2 = .84, T3 = .84, T4 = .85), (c) complaining (i.e., complain, bicker, whine; ICCs T1 = .85, T2 = .86, T3 = .92, T4 = .89), (d) nonverbal negative emotion (i.e., signs of frustration, anger, contempt, or emotional defensiveness, tense, tight or angry body postures and facial expressions, tone of voice that is angry, cold, or annoyed; ICCs T1 = .85, T2 = .86, T3 = .85, T4 = .84), (e) invalidation (i.e., invalidate and act insensitive to spouses' feelings, views, and thoughts; minimize or dismiss a partner's concerns; make "yes but" statements without taking the other person seriously; ICCs T1 = .77, T2 = .79, T3 = .75, T4 = .77), (f) collaborative problem solving (i.e., explain own viewpoint in a non-blaming and clear fashion, elicit partner's perspective on issue, be nonjudgmental and nondefensive when listening to partner's viewpoint, show willingness to generate solutions and compromise; ICCs T1 = .83, T2 = .82, T3 = .87, T4 = .88), and (g) affection (i.e., verbal affirmations, praises, and compliments of partner; shared positive humor that appears to bring the couple closer, nonverbal signs of affection such as touching, caring looks, smiles, shared laughter, and holding hands; ICCs T1 = .81, T2 = .80, T3 = .85, T4 = .88). The three coders' ratings on each team were averaged to yield one rating for each of the seven codes at each time point for each spouse.

**Data reduction to yield two observed variables.** For data-reduction purposes, principal factor analyses were conducted using two alternative forms of oblique rotation methods, direct oblimin rotation and promax rotation oblique, on the seven codes for each

spouse at each time point. Results consistently suggested the presence of one "negativity" factor for husbands and wives at all four time points, comprised of the following five codes: domineering-coercive control, verbal aggression, nonverbal negative emotion, complaining, and invalidation. Collaborative problem solving and affection also loaded sufficiently often onto a second factor to justify combining them into one "positivity" factor.

## Results

### Preliminary Data Analyses and Findings

Table 1 displays means, standard deviations, alpha coefficients, and Pearson correlations of husbands and wives for the major variables at the four time points. Coders' averaged ratings of spouses' behavior fell at the low to moderate end for positivity and low end for negativity of the rating scale. Husbands and wives' average reports of sanctifying their marriage and the frequency of spiritually intimate behaviors by each spouse fell in the moderate zone of possible scores. Not displayed are intercorrelations among the four measured marital regressors at each time point, which ranged from Pearson correlations equal to .18 to .36 for wives and .17 to .43 for husbands.

### Statistics and Data Analyses

**Cross-sectional bivariate correlations.** We ran Pearson correlations at the four time points between both spouses' observed negative and positive behavior and the four marital predictors for each spouse. These are shown in Table 2 and discussed below.

**Bivariate fixed-effects regression modeling.** Our first series of regressions involved bivariate models. Each dependent variable (negativity or positivity) was regressed one at a time on each marital construct (sanctification of marriage, spiritual intimacy, collaboration, and love) plus dummy variables representing the effect of time using fixed-effects regression modeling. This strategy presupposes the existence of an unmeasured selection factor in the cross-sectional model of a regressor's effect on a response. With more than one wave of data for the same respondents, the unmeasured confound can be eliminated from the model through a "differencing" process. This technique is designed to control for time-invariant, unmeasured heterogeneity (i.e., unmeasured characteristics of individuals or couples that affect both predictor and criterion in the model). Fixed-effects regression modeling is a staple of econometric analyses and is amply described in a number of sources (see, e.g., Allison, 2005, 2009).

**Multivariate regression modeling.** Our second series of regressions was multivariate. Both spouses' negativity and positivity scores were simultaneously regressed on all four time-varying marital constructs. For the purposes of analysis, the father and mother records were pooled for each measurement occasion, converting the original sample of 178 couples into  $178 \times 2 \times 4 = 1,424$  records. However, employing listwise deletion to eliminate cases with missing data on any study variables resulted in a final sample of 164 couples contributing one or more waves of data to the dataset. This would imply a total of  $164 \times 8 = 1,312$  records. But further reductions due to missing data brought the total number of records to 1,288. Missing data in longitudinal analyses create no bias provided that the data are missing at random (MAR),

Table 2

*Bivariate Pearson Correlations Between Major Study Variables at Each Time Point*

Variable	Husbands				Wives			
	T1	T2	T3	T4	T1	T2	T3	T4
Observed negativity								
His sanctification	-.15 <sup>†</sup>	-.26***	-.09	-.09	-.03	-.18*	-.02	-.12
Her sanctification	-.03	-.15 <sup>†</sup>	-.08	-.03	-.07	-.11	-.04	-.07
His spiritual intimacy	-.30***	.29***	-.20**	-.19*	-.27**	-.31***	-.20*	-.20*
Her spiritual intimacy	-.26**	-.27***	-.22**	-.24**	-.29***	-.22**	-.15 <sup>†</sup>	-.17*
His love	-.22**	-.35***	-.15 <sup>†</sup>	-.11	-.14 <sup>†</sup>	-.33***	-.17*	-.22**
Her love	-.26**	-.09	-.11	-.10	-.32***	-.19*	-.19*	-.20*
His collaboration	-.21**	-.32***	-.29***	-.34***	-.28***	-.31***	-.30***	-.40***
Her collaboration	-.14	-.26***	-.22**	-.29***	-.18*	-.32***	-.23**	-.33***
Observed positivity								
His sanctification	.20*	.19*	.16*	.21*	.15 <sup>†</sup>	.15*	.13	.13 <sup>†</sup>
Her sanctification	.11	.11	.11	.16*	.10	.07	.10	.14 <sup>†</sup>
His spiritual intimacy	.34***	-.22**	.29***	.29***	.31***	.21**	.29***	.27***
Her spiritual intimacy	.34***	-.24**	.30***	.30***	.33***	.27***	.33***	.33***
His love	.23**	-.30***	.27***	.21**	.17*	.33***	.36***	.22**
Her love	.23**	.01	.08	-.01	.28***	.22**	.25**	.14 <sup>†</sup>
His collaboration	.34***	.29***	.39***	.38***	.25**	.25**	.31***	.32***
Her collaboration	.17*	.22**	.27**	.27***	.21**	.33***	.28***	.38***

<sup>†</sup>  $p < .1$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

a standard assumption in such analyses (Fitzmaurice, Laird, & Ware, 2004). Moreover, listwise deletion is the missing-data technique that is most robust to violation of MAR data among the independent variables (Allison, 2002). That said, as a robustness check, using multiple imputation, we reran the multivariate analyses with 10 replications of the imputed data to replace the missing data. Substantive conclusions were the same as those obtained using listwise deletion. Below we present the results arrived at using listwise deletion (the results based on multiple imputation are available from the authors on request).

We regressed negativity and positivity on the following covariates: dummy variables representing Months 4, 7, and 13 (the first interview occasion is the reference period), his and her marital sanctification, spiritual intimacy, love, and collaboration (time-varying covariates), and his and her education, the average spousal age, family income, and duration of the marriage in years (time-invariant controls). The statistical model we used is an amalgam of Raudenbush and colleagues' multivariate longitudinal dyadic-data approach (Raudenbush, Brennan, & Barnett, 1995) and Allison's (2009) hybrid model for estimating regression coefficients in the presence of a fixed effect (see also Brame, Bushway, & Paternoster, 1999 and Horney, Osgood, & Marshall, 1995, for further applications of the Allison model). It has the following form for the response of negativity, or  $N$  (the model for positivity is comparable). For simplicity, we assume one time-varying regressor,  $X$ , and one time-invariant regressor,  $Z$ :

$$\begin{aligned}
 N_{ij} = & \text{male}_{ij}(\beta_{m0i} + \beta_{m1}\text{Month } 4 + \beta_{m2}\text{Month } 7 \\
 & + \beta_{m3}\text{Month } 13 + \beta_{m4}X_{ij} + \beta_{m5}Z_i) \\
 & + \text{female}_{ij}(\beta_{f0i} + \beta_{f1}\text{Month } 4 + \beta_{f2}\text{Month } 7 \\
 & + \beta_{f3}\text{Month } 13 + \beta_{f4}X_{ij} + \beta_{f5}Z_i) + \varepsilon_{ij},
 \end{aligned}$$

where  $i$  ( $i = 1, 2, \dots, 164$ ) indexes couples and  $j$  ( $j = 1, 2, \dots, 4$ )

indexes measurement occasions.  $\text{Male}_{ij}$  is a dummy variable equaling 1 for fathers and 0 for mothers; similarly,  $\text{female}_{ij}$  is a dummy variable equaling 1 for mothers and 0 for fathers. The disturbance,  $\varepsilon_{ij}$ , is assumed to be normally distributed, with mean at zero and constant variance, and uncorrelated with all model regressors. The intercepts  $\beta_{m0i}$  and  $\beta_{f0i}$  are allowed to be random parameters that vary over couples. The submodels for the intercepts are as follows:

$$\beta_{m0i} = \gamma_{m0} + u_{m0i},$$

$$\beta_{f0i} = \gamma_{f0} + u_{f0i}.$$

Substituting these models for the intercepts into this equation produces the composite equation:

$$\begin{aligned}
 N_{ij} = & \text{male}_{ij}(\gamma_{m0} + \beta_{m1}\text{Month } 4 + \beta_{m2}\text{Month } 7 \\
 & + \beta_{m3}\text{Month } 13 + \beta_{m4}X_{ij} + \beta_{m5}Z_i) + \text{female}_{ij}(\gamma_{f0} \\
 & + \beta_{f1}\text{Month } 4 + \beta_{f2}\text{Month } 7 + \beta_{f3}\text{Month } 13 \\
 & + \beta_{f4}X_{ij} + \beta_{f5}Z_i) + \varepsilon_{ij} + u_{m0i}\text{male}_{ij} + u_{f0i}\text{female}_{ij}.
 \end{aligned}$$

The last three terms constitute a complex disturbance term that effectively models serial correlation in the equation errors due to the interdependence of spousal responses and the interdependence of each individual's responses from different time periods. In this way, the interdependence of spouses and of responses for a given spouse across time are incorporated into the estimated standard errors of coefficients. In sum, the model jointly estimates regression models for each spouse, based on the constructs of interest, and the equation's error structure is adjusted for the dyadic and longitudinal nature of the data. Although it is customary to split the response variable into two scales for each respondent to have parallel measures of the construct, this was not necessary in the current analysis. Creating parallel scales allows the random parameterization of a complex time trend in longitudinal dyadic

analyses (Lyons & Sayer, 2005; Raudenbush et al., 1995). However, the time trend is not a primary focus in our study. Hence, we simply used fixed dummies for each measurement occasion.

The composite equation shown above is a random-effects model because of the random intercepts. Such a model is valid provided any unobserved heterogeneity is purely random, that is, uncorrelated with any model regressors. This is a restrictive assumption that may not have been valid in the current case. To estimate a fixed-effects model, one need only deviate the time-varying covariates from their over-time means. That is, for each time-varying covariate,  $X_{ij}$ , (e.g., his marital sanctification), we computed its mean over time for a given couple,  $\bar{X}_i$ , by averaging its scores over the eight measurement occasions. The deviation score is then computed as  $X_{ij} - \bar{X}_i$ . We then include these deviation scores as well as the over-time means ( $\bar{X}_i$ ) in the model in place of the original time-varying covariates. The coefficients for the deviation scores are fixed-effects estimators of the respective time-varying covariates, thereby removing the bias due to the presence of a fixed effect (Allison, 2009; Brame, Bushway, & Paternoster, 1999; Horney, Osgood, & Marshall, 1995; unfortunately, this approach does not eliminate fixed-effects bias in coefficients of time-invariant factors.) To test whether the random-effects specification rather than a fixed-effects model is valid, we test whether the effects of the deviation scores are the same as the effects of their respective overtime means. This is equivalent to a Hausman test of random- versus fixed-effects models (Allison, 2009). If the test is significant, then the fixed-effects estimates are to be preferred. But if the test is not significant, the random-effects estimators have smaller sampling variance and are therefore the preferred coefficients. In our analyses, the test was nonsignificant for both negativity ( $p > .9$ ) and positivity ( $p > .45$ ). Therefore in Table 3 we present the random-effects estimators for both response variables. It should be noted that, in the regression for positivity, we were only able to specify one of the intercepts—the one for the men—as random. Otherwise, the estimation method would have produced unreliable estimates. All models employed restricted maximum-likelihood estimation, which is less biased in smaller samples than maximum likelihood (Fitzmaurice et al., 2004). Models were estimated using PROC MIXED in SAS 9.3.

Table 3  
*Bivariate Fixed-Effects Models To Predict Spouse Behavior*

Predictor	Observed negativity		Observed positivity	
	Husbands	Wives	Husbands	Wives
His marital sanctification	-.018 <sup>†</sup>	-.013	.007*	.008*
Her marital sanctification	.001	-.004	.007 <sup>†</sup>	.008*
His spiritual intimacy	-.090*	-.101*	.035*	.042*
Her spiritual intimacy	-.107*	-.123*	.057***	.046**
His love	.026	-.048*	.006	.014 <sup>†</sup>
Her love	-.044*	-.067**	.004	.013
His collaboration	-.029	-.174*	.016	-.001
Her collaboration	-.016	-.015	.026 <sup>†</sup>	.012

Note.  $N = 164$  couples.

<sup>†</sup>  $p < .1$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

## Primary Findings Regarding Hypotheses

As can be seen in Table 2, spouses' joint reports of greater spiritual intimacy correlated significantly at each time point with more positivity and less negativity by each spouse. Husbands' self-reports of greater sanctification also correlated significantly with more observed positivity by both spouses, with mixed findings for observed negativity. Wives' self-reports of sanctification yielded few significant cross-sectional correlations. Spouses' joint reports of each spouse's collaboration skills correlated as expected with observed behaviors by both spouses, as did husbands' self-reported marital love. Wives' greater self-reported love was tied to her observed conduct, but not consistently with his observed behavior.

As can be seen in Table 3, using bivariate fixed-effects regression models to control for time-invariant factors, husbands' self-reports of greater sanctification of marriage predicted more observed positivity by both spouses. Wives' self-reports of greater sanctification of marriage predicted more observed positivity by her, with a marginally significant effect emerging for his positivity. Husbands' self-reports of greater sanctification also marginally predicted lower observed negativity by husbands. The strongest findings emerged for spiritual intimacy. Spouses' joint reports of greater spiritual intimacy by husbands and by wives predicted more observed positivity and less observed negativity by both spouses. Wives' self-reports of love predicted less negativity by both spouses' net of time-invariant factors. Husbands' self-reported love predicted less observed negativity by wives and marginally greater observed positivity by wives. Collaboration was tied only to less observed negativity by wives, and joint reports of wives' collaboration was marginally tied to more positivity by husbands using fixed-effects modeling.

As can be seen from the multivariate results in Table 4, spouses' joint reports of wives' spiritual intimacy uniquely predicted more observed positivity by both spouses and less observed negativity by husbands after controlling for the interdependence of spouses' reports, the other three time-varying, measured marital factors by each spouse, and demographics. Husbands' self-reports of sanctification of marriage marginally predicted husbands' lower observed negativity and greater observed positivity. Both spouses' greater self-reported love increased her observed positivity, and her self-reported love lowered her observed negativity after controlling for confounding factors. Spouses' joint reports of husbands' collaboration reduced wives' observed negativity and increased his observed positivity, whereas wives' collaboration elevated her positivity. Although effect sizes for the unique contribution of any given predictor in multivariate regression models were small, the total variance accounted for in observed positivity and negativity was 20% and 29%, respectively.

## Discussion

The goal of this study was to rigorously test whether heterosexual couples' reports of two specific spiritual marital constructs, sanctification of their marriage and their spiritual intimacy, would predict the way spouses treated each other during conflict-ridden discussions across the transition to parenthood based on direct observation of their behavior. This included the extent to which each spouse exhibited positive behavior (e.g., effective communication strategies, warmth and affection) and resisted the urge to

Table 4  
*Restricted Maximum-Likelihood Estimates (Standard Errors) for Random-Effects Multivariate Models of Negativity and Positivity During Observed Conflict Resolution*

Explanatory variable	Observed negativity		Observed positivity	
	Husbands	Wives	Husbands	Wives
Intercept	25.405*** (2.989)	25.606*** (2.781)	-2.150 <sup>†</sup> (1.306)	-2.717*** (0.820)
Month 4	-0.232 (0.249)	0.430 <sup>†</sup> (0.248)	-0.537*** (0.127)	-0.638*** (0.126)
Month 7	0.072 (0.253)	1.370*** (0.253)	-0.383** (0.129)	-0.439*** (0.127)
Month 13	-0.683** (0.259)	0.148 (0.258)	-0.051 (0.132)	0.083 (0.129)
His education	-0.777** (0.247)	-0.860*** (0.226)	0.517*** (0.102)	0.299*** (0.057)
Her education	-0.274 (0.275)	-0.009 (0.251)	0.042 (0.112)	0.093 (0.062)
Average spousal age	-0.130 <sup>†</sup> (0.075)	-0.064 (0.068)	0.048 (0.031)	0.014 (0.017)
Family income	0.006 (0.009)	-0.003 (0.008)	-0.002 (0.004)	-0.002 (0.002)
Duration of marriage	0.073 (0.111)	-0.061 (0.101)	-0.094* (0.045)	-0.011 (0.025)
His marital sanctification	-0.012 <sup>†</sup> (0.007)	-0.001 (0.007)	0.006 <sup>†</sup> (0.003)	0.002 (0.002)
Her marital sanctification	0.007 (0.007)	0.002 (0.007)	0.001 (0.003)	-0.001 (0.002)
His spiritual intimacy	-0.052 (0.044)	-0.054 (0.043)	0.012 (0.022)	0.012 (0.017)
Her spiritual intimacy	-0.099* (0.045)	-0.055 (0.044)	0.064** (0.022)	0.049** (0.017)
His love	-0.018 (0.019)	-0.028 (0.018)	0.009 (0.009)	0.022** (0.007)
Her love	-0.028 (0.021)	-0.059** (0.020)	-0.010 (0.010)	0.018* (0.008)
His collaboration	-0.053 (0.038)	-0.079* (0.037)	0.046* (0.018)	0.009 (0.013)
Her collaboration	0.034 (0.039)	0.040 (0.038)	-0.005 (0.019)	0.032* (0.013)
R <sup>2</sup>	.200		.289	

Note.  $N = 164$  couples; 1,288 person-periods.

<sup>†</sup>  $p < .1$ . \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

resort to hostile behavior when discussing their top three conflicts. We focused on the transition to parenthood as a stage of marriage at which couples are likely to be especially stressed and challenged to engage in positive behavior as they negotiate their triggers of conflict as pregnant couples and then coparents. We employed rigorous statistical analyses to model causal relationships between the two spiritual constructs and observed spousal behavior by ruling out third-variable confounds.

Our most intriguing set of findings emerged for spiritual intimacy, defined here as engaging in spiritual disclosure about one's own spiritual journey, questions and doubts, and providing non-judgmental support when a partner makes spiritual disclosures. Notably, our measure of spiritual intimacy allows partners to be the same or different in their individual spiritual or religious identities (e.g., religious affiliation or attendance), and spouses do not have to be involved in organized religion to engage in spiritual dialogues. Couples' joint reports of each spouse's spiritual intimacy were correlated at each time point with less negativity and more positivity by both spouses. These links diminished in size, but remained significant in our fixed-effects analyses. Thus, the links were not fully explained away by stable characteristics of the spouses, such as personality traits, intelligence, or trait-like efforts to make a good impression on researchers. In our multivariate analyses, wives' spiritual intimacy also uniquely predicted less negativity and more positivity by husbands after controlling for sanctification, marital love, collaborative communication skills, and demographics. Taken together, our findings suggest that greater spiritual intimacy offers couples a spiritual resource to motivate them to remain kind and resist the urge to "go negative" when they discuss their core conflicts. In lay person's terms, the risk of losing one's connection to a "soul mate" may motivate spouses to avoid trying to win a given battle at the cost of damaging the union when partners must discuss major disagree-

ments. In sum, spiritual intimacy appears to be one unique resource that motivates some spouses to preserve and protect their marriage when they become first-time parents together.

As expected, couples' reports of the extent to which husbands and wives disclosed that each party engaged in effective communication skills during conflictual discussions were cross-sectionally associated with their observed behaviors. However, unexpectedly, these links largely disappeared after taking into account stable, unmeasured characteristics of the spouses, such as personality traits or intelligence. In other words, unseen "third variables" accounted for why spouses' self-reports of communication skills within their repertoires were correlated with their observed behaviors; one exception was that couples' reports of greater collaboration by husbands predicted less observed negativity by wives in the bivariate fixed-effects model. This surprising pattern of findings reinforces the need for researchers to identify specific and malleable factors that motivate couples to inhibit hostility during conflicts and put into practice the effective communication skills they possess (Bradbury & Karney, 2004; Fincham & Beach, 1999). Because stable factors such as personality traits and intelligence cannot be readily changed, interventions need to focus on malleable factors that influence the behavior of spouses besides their mastery or knowledge of negotiation skills.

With regard to the sanctification of marriage, both spouses' perceptions predicted greater positivity by one or both spouses after controlling for stable characteristics of the spouses. This suggests that viewing one's marriage as embodying such sacred qualities as being eternal or holy, or reflecting God's intentions, could help spouses, perhaps men especially, maintain a broad perspective about conflicts that enables them to be more light-hearted and warm when engaging in conflictual discussions. In the multivariate analyses, however, husbands' sanctification of marriage only marginally predicted husbands' higher positivity and

lower negativity, with null findings for wives. Thus, the impact of sanctification appears to overlap with time-varying levels of spiritual intimacy, marital love, and collaborative negotiation skills. Overall, our findings for wives' negativity imply that the perceived sanctity of a marriage by either spouse has no impact on whether spouses express the relatively mild levels of hostility when generally happily married.

Finally, we found that both spouses' love for one another predicted less negativity by one or both spouses after controlling for stable characteristics of the spouses in fixed-effects models. By contrast, in multivariate analyses, both partners' love of each other predicted greater positivity by wives, and her love predicted less negativity by her. To some degree, these findings reinforce the concept that married couples who become coparents may benefit from activities that help them sustain a sense of love despite the demands of new parenthood, such as going on date nights, and giving gifts of objects, time, or labor to one's spouse.

Notably, the limited and small effects we found for marital love and collaboration skills in our bivariate and multivariate models provide perspective on the impact of spiritual intimacy and sanctification on observed behavior. Namely, after controlling for third-variable confounds, the spiritual constructs performed on par with two nonspiritual constructs that we also expected to motivate spouses to avoid engaging in or eliciting negative behaviors from one another during conflicts and instead to engage in positive behavior that would protect their marriage. Thus, we believe we have identified and isolated two specific spiritual resources that help couples deal constructively with their most difficult conflicts as they form a new family.

## Limitations

The limitations of our study include the use of a targeted sample of couples in relatively new and well-adjusted marriages. Thus, the results should not be generalized to couples in distressed unions, in which spiritual processes may be more likely to go awry (Mahoney, 2013). For practical reasons, we restricted our sample to heterosexual coparents, although we presume that our hypotheses about the perceived sanctity of marriage and spiritual intimacy would operate similarly for same-sex coparents. Moreover, our study was limited to couples who married prior to the birth of both spouses' first biological child, which in recent years represent a declining portion of all childbearing liaisons (Cherlin, 2010). Such couples, like those in our sample, tend to be more affluent, well-educated, and likely to describe themselves as Caucasian than do unmarried or cohabiting coparents (Cherlin, 2010). Future work in this area should be undertaken to see if the findings can be replicated using larger and other types of samples. Our study was also limited to a focus on spiritual constructs that we theorized could improve couples' interactions. Further research is also needed on specific spiritual constructs that may increase hostile or dysfunctional interactions. Finally, this study was not intended or designed to examine trajectories of change in focal constructs over time; rather we used our longitudinal data to model causal influences of self-reported constructs on observed behavior.

## Conclusion

Our study helps illuminate the benefits of integrating spiritual constructs about intimate unions into rigorous empirical studies of

couples' functioning. It fits into an emerging subfield called relational spirituality, which focuses on the ways people rely on specific spiritual beliefs and behaviors, for better or worse, to help them create, maintain, and transform their intimate relationships (Mahoney, 2010, 2013). Whereas prior research on the intersection of faith and marriage has relied heavily on single-item measures of involvement in organized religion (e.g., frequency of religious attendance or overall importance of religion), clinicians, clergy, and couples need scientific findings about malleable spiritual beliefs or behaviors focused on marriage that can help or harm traditional and nontraditional couples. We hope our findings have added compelling evidence to the value of delving more deeply into ways that people draw upon spirituality as one potential resource to sustain their unions.

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