Financial Strain and Stressful Events Predict Newlyweds' Negative Communication Independent of Relationship Satisfaction

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Abstract

Social-learning perspectives explicitly recognize the role of partners' personal histories and contexts as possible causes of couple communication behavior, but these assumptions are rarely tested directly, and operationalizations of context in behavioral research on couples rarely extend beyond the interacting dyad. To broaden our understanding of why couples differ in communication, the current study examined whether observed behaviors in marital interactions covary with individual experiences and contextual factors. Behaviors coded from in-home conversations of 414 ethnically-diverse newlywed couples were examined simultaneously in relation to childhood and family-of-origin experiences, financial strain and stressful life events, depressive symptoms, and relationship satisfaction. A latent factor representing financial strain and stressful life events was the strongest correlate of negative communication, with higher levels of stress predicting more negativity. Relationship satisfaction was the strongest correlate of observed positivity, with higher levels of satisfaction predicting more positivity. Childhood and family experiences were unrelated to behaviors, whereas results for depressive symptoms were complex and counterintuitive. Because the negative behaviors highlighted in social-learning models of relationship functioning, and often targeted in educational interventions, covary reliably with the stresses and financial strains that couples experience, contextual factors merit greater emphasis in models designed to explain and prevent marital deterioration.

Keywords

couples; communication; observational; stress; relationship satisfaction

The way intimate partners communicate is integral to how they feel about their relationship and, with some exceptions, cross-sectional and longitudinal studies demonstrate modest but reasonably consistent associations between communication behaviors and relationship satisfaction (Bradbury & Karney, 2010). Clarifying how observed communication covaries with relationship satisfaction strengthens behaviorally-oriented models of relationship deterioration, while offering a useful starting point for preventive interventions intended to promote healthy relationships. At the same time, factors other than observed communication assessed early in marriage (e.g., stress, personality) reliably discriminate among couples who go on to achieve markedly different outcomes over the early high-risk period for marital deterioration (Lavner & Bradbury, 2010; Lavner, Bradbury & Karney, 2012), and 4-year effects of preventive interventions differ significantly as a function of partners' personal characteristics. For example, couples in which one partner comes from a risky family background appear to benefit from training in specific communication skills more

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than from basic psychoeducation, whereas couples with two low-risk partners remain stably happy when they receive psychoeducation but decline in satisfaction when they receive skills training (i.e., Self-PREP; see Halford, Sanders, & Behrens, 2001). Findings such as these highlight the possibility that couples' interpersonal strengths and weaknesses exist alongside and covary with partners' backgrounds, personal experiences, and current situational stresses. Because deeper understanding of these covariates could enrich explanation of why couples engage in the behaviors that foreshadow relationship change, and thereby aid in improving the impact of preventive and educational interventions, the present study examines several factors hypothesized to predict between-couple differences in key facets of observed communication.

Conceptual Approach

Social learning accounts of marital deterioration began with the contention that partners' unhappiness results from mismanaged conflict and problem-solving generally and from partners' inadvertent tendency to negatively reinforce one another's maladaptive behaviors in particular. The seminal theoretical arguments outlined by Neil Jacobson and Gayla Margolin in 1979 allow for a wide range of influences on these behavioral processes, including individual differences, personal histories, and environmental instigators of exchanged behaviors. At the same time, their explication of these influences is fairly narrow in scope. For example, their discussion of 'Environmental determinants of behavior' (p. 6) is limited to stimuli emitted solely from the partners themselves (e.g., much like a yellow or red traffic light signals a unsafe crossing through an intersection, "an amorous spouse who arrives home to a grumpy, irritable partner is unlikely to initiate sexual advances" p. 8). Similarly, in their section on 'Changes in the external environment' (p. 26), Jacobson and Margolin focus on the possible presence of alternative partners as threats to the relationship, incompatibilities that arise when people have to choose between their job and their relationship, and the changing social roles of women (e.g., Jacobson & Margolin, 1979).

With the subsequent accumulation of research and experience in applying this perspective to couples seeking therapy, the need for expanded conceptualization of these influences is now being acknowledged. In their analysis of the theoretical underpinnings of the cognitive-behavioral couples therapy (CBCT) model, for example, Baucom, Epstein, LaTaillade, and Kirby (2008) note that "Although cognitive-behavioral perspectives on marriage have not ignored the role of the environment in relationship functioning, it has typically been given minimal attention until relatively recently, with the influence of systems and ecological models of relationship functioning" (p. 35; also see Bodenmann, 1995). By articulating the potential importance of demands arising from, for example, children and extended families, poor health, racial discrimination, and work, this view offers a much more encompassing assertion about the embeddedness of couple interaction in complex contexts than was put forth by Jacobson and Margolin (1979). Along similar lines, Baucom, Epstein, and colleagues note that the CBCT perspective can be critiqued for "minimizing the influences of personality and other more stable individual differences between partners on couple functioning" (p. 34) and finally, echoing earlier arguments for a more inclusive conception of marital interaction (e.g., Cutrona, 1996), these authors go on to emphasize the likely significance of positive behavioral exchanges and social support. In short, the enduring emphasis on dyadic processes as determinants of variability in outcomes remains intact in emerging models of relationships, at the same time that scholars are arguing for expanded conceptions of the domain of behavioral exchanges and the intra-individual and extradyadic forces likely to impinge upon them.

In the present study we adopt the theoretical perspective of the Vulnerability-Stress-Adaptation (VSA) model (Karney & Bradbury, 1995) which was initially offered as a

framework that could integrate adaptive interactional capacities, stressful life circumstances outside the dyad, and enduring personal vulnerabilities, and which hypothesizes more specifically that communication processes reflect stable individual experiences that partners bring to the relationship, along with challenging events and situations that couples confront individually and jointly as their relationship develops. In the VSA model, personal experiences, even those from childhood, are hypothesized to influence later dyadic processes. Children learn communication skills by observing their parents interacting routinely and repeatedly with each other, and by interacting with their parents themselves, and they then carry these experiences through to their romantic relationships in adulthood. Children exposed primarily to negative behaviors modeled by their parents, or who are not spoken to in a warm and supportive way by their parents, are expected to struggle as they attempt to implement a positive interpersonal repertoire with later romantic partners. Personal vulnerabilities that are more proximal in time can also affect the manner in which intimate partners relate, according to the VSA model. Partners' global affective experiences are assumed to tilt the balance of positive and negative behaviors they display, with depressive symptoms suggested as an especially pernicious and common impediment to healthy communication. The decreased cognitive capacity experienced by those with depressive symptoms may make it difficult to work with one's spouse to solve problems, for example, and individuals experiencing feelings of depression may find it difficult to offer support to their spouse and to empathize with his or her problems. Finally, the VSA model recognizes that the interpersonal equilibrium that two people strive to establish can be disrupted by a wide range of factors arising largely outside the context of the relationship itself. Financial strains and any number of stressful life events – work stress, difficulties parenting, problems with in-laws, health concerns – are all assumed to affect the balance of positive and negative behaviors that partners exchange, by directing partners' energy and attention outward, toward resolving these immediate demands, rather than inward, on maintaining the relationship and taking care of one another. This proposal is noteworthy when juxtaposed with conventional skill-based views of communication because it suggests that even when couples possess the skills they need to keep their relationship healthy, stressful events and circumstances can undermine their ability to deploy these skills effectively when they are most needed. Conversely, couples with merely adequate communication skills might have strong relationships if their contextual challenges are relatively benign.

Brief Review of Research

A number of independent strands of research offer empirical support for the predictions offered by the VSA framework. Behaviors modeled or experienced in childhood are indeed predictive of interactions with romantic partners (e.g., Dinero, Conger, Shaver, Widaman, & Larsen-Rife, 2008) and with spouses (e.g., Story, Karney, Lawrence, & Bradbury, 2004), for example, and depressive symptoms covary with more negativity, less positivity and poorer problem-solving (Rehman, Gollan, & Mortimer, 2008). Separate lines of work indicate that stressful life events (such as unemployment, work stress, arguments with co-workers, problems with in-laws, discrimination) are associated with poorer observed problem-solving (e.g., Cohan & Bradbury, 1997) and that economic pressure and strain increase conflict and hostility while reducing warmth and supportiveness (e.g., Conger et al., 1990; Conger, Reuter, & Elder, 1999; for a review see Story & Bradbury, 2004). Even neighborhood characteristics appear to matter: intimate partners living in economically strained neighborhoods display less warmth towards each other (Cutrona et al., 2003). While these and similar findings do not support causal inferences, the available evidence is consistent with the possibility that couples living in risky environments, and partners with risky personal backgrounds, vary systematically in their ability to employ adaptive communication strategies.

Despite growing recognition that couples' interpersonal processes may be governed by a host of relatively distal factors, the unique and independent contributions of these factors remains unclear. For example, documented associations between depressive symptoms and observed behavior are informative, but robust zero-order correlations between depressive symptoms and stress, or depressive symptoms and parental conflict, leave open questions about which factor is accounting for the greatest amount of variability in couple communication. This may be a significant limitation, in that increased precision on the likely correlates of maladaptive couple interaction behaviors would enable better identification of couples at risk for adverse interactions and subsequent relationship dissatisfaction and dissolution.

Current Study

The present study aims to determine the unique contributions that family of origin experiences, concurrent depressive symptoms, and contextual risks arising from financial strain and stressful life events make to the prediction of concurrent observations of couple communication. Use of a relatively large sample of couples ($N = 414$) allows us to apply structural equation modeling (SEM) to examine the independent effects of these predictors over and above relationship satisfaction and each other, while use of observational data allows us to capture dyadic interaction directly while also eliminating shared method variance between the self-reported predictors and dyadic processes. We use a sample of newlywed couples as this helps ensure analysis of married couples with riskier levels of communication and satisfaction, before they have self-selected out of the sample through separation or divorce. Additionally, because most prior observational research with newlywed couples focuses on stable middle-class couples with relatively low likelihood of eventual divorce, participants in this study are drawn from a wide range of living situations, including many from low-income neighborhoods. Doing so improves our ability to understand factors influencing couples in an under-studied segment of the population that is especially vulnerable to relationship distress and dissolution.

The independent variables identified above are examined in relation to three classes of communication behaviors: positivity, negativity, and overall effectiveness in communication skills. Studying these different types of behavior allows us to address questions about different patterns of associations among our independent and dependent variable sets. Negative communication, including hostility, dominance, and interrogation, is assumed to be particularly damaging in couple relationships; clarifying the network of associations surrounding this construct is therefore of particular importance. At the same time, we cannot assume that the correlates of negativity are the same as those for positivity and effectiveness, or that factors predicting higher levels of negativity necessarily predict lower levels of positivity. By including all three behavioral factors in our structural equation models we are able to clarify their overlap and the manner in which a given predictor covaries across all three domains of observed behaviors.

From the perspective of the VSA model and the evidence that supports specific paths in this model, we hypothesize that variables other than satisfaction will be associated with these three behavioral outcomes. The literature provides little guidance on the relative contributions of these specific individual and contextual factors, primarily because they have rarely been studied simultaneously and because associations among them can shift depending on which variables are controlled (e.g., Johnson & Jacob, 1997). In the absence of a stronger foundation for prediction, we hypothesize that self-reports of stress will covary with higher levels of observed negativity, independent of reported relationship satisfaction. We base this prediction on the aforementioned studies that link various forms of stress to observed interaction and on our use of a diverse and largely low-income sample (i.e., a

sample of couples likely to be experiencing moderate levels of stress and regular contextual challenges). Predictions relating stress to observed positivity are even more tenuous in the context of a multivariate model. However, whereas we can be reasonably confident that higher levels of stress will predict more negative engagement, lower levels of stress may not necessarily predict higher levels of positivity. This justifies caution in predicting an inverse association between these two variables, an association that becomes even less plausible when we recognize that relationship satisfaction – likely to be a robust zero-order correlate of observed positivity (e.g., Johnson et al., 2005) -- is controlled in these models. We are similarly tentative in offering strong predictions for the remaining associations relating personal vulnerability and stress to the behavioral codes, beyond the expectation that more challenging early family environments and more symptoms of depression are likely to covary with more negativity, less positivity, and less effectiveness.

Method

Sampling

Sampling was undertaken to yield a group of participants who were first-married newlywed couples of the same ethnicity, living in low-income neighborhoods. To accomplish this, participants were recruited from Los Angeles County, a region with a large and diverse low-income population. Recently married couples were identified through names and addresses on marriage license applications. Addresses were matched with census data to identify applicants living in low-income communities, defined as census block groups wherein the median household income was no more than 160% of the 1999 federal poverty level for a 4-person family. Next, names on the licenses were weighted using data from a Bayesian Census Surname Combination, which integrates census and surname information to produce a multinomial probability of membership in each of four racial/ethnic categories (Hispanic, African American, Asian, and Caucasian/other). Couples were selected from the population of recently married couples using probabilities proportionate to the ratio of target prevalences to the population prevalences, weighted by the couple's average estimated probability of being Hispanic, African American, or Caucasian, which are the three largest groups among people living in poverty in Los Angeles County (U.S. Census Bureau, 2002). These couples were telephoned and screened to ensure that they had married, that neither partner had been previously married, and that both spouses identified as Hispanic, African American, or Caucasian. A total of 3,793 couples were contacted through addresses listed on their marriage licenses. Of the 3,793 couples contacted, 2,049 could not be reached and 1,522 responded to the mailing and agreed to be screened for eligibility. Of those, 824 couples were screened as eligible, and 658 of them agreed to participate in the study, with 431 couples actually completing the study.

Participants

The sample comprised 431 couples identified with the above procedures. Marriages averaged 4.8 months in duration ($SD = 2.5$), and 38.5% of couples had children. Men's mean age was 27.9 ($SD = 5.8$) and women's mean age was 26.3 ($SD = 5.0$). Wives had a mean income of $28,672 ($SD = $24,549$) and husbands had a mean income of $34,153 ($SD = $27,094$). Twelve percent of couples were African American, 12% were Caucasian and 76% were Hispanic, which is comparable to the proportion of people living in the sampled neighborhoods in Los Angeles County (12.9% African American, 14.7% Caucasian, and 60.5% Hispanic; U.S. Census Bureau, 2002). Of the Hispanic couples, 33% spoke Spanish in their interactions and 67% spoke English, and all African American and Caucasian couples spoke English. Interactions for 17 couples were not recorded, either because participants declined ($n = 10$) or because the equipment malfunctioned ($n = 7$) leaving 414 couples providing data for this analysis.

Procedure

Couples were visited in their homes by two trained interviewers who described the IRB-approved study and obtained written informed consent from each participant. After completing self-report measures individually, partners were reunited for three 8-minute videotaped discussions. These discussions took place in a location of the couples' choosing (usually their dining room or living room) that would enable them to talk privately and without interruption. Partners were seated at a ninety degree angle to allow them to interact normally while remaining visible to the single camera in front of them. For the first interaction, which was designed to assess problem-solving behaviors, partners were asked to identify a topic of disagreement in their relationship and then to devote 8 minutes to working toward a mutually satisfying resolution of that topic. Popular topics included management of money, division of chores, communication, and children. For the second interaction, using procedures designed to assess social support behaviors (see Pasch & Bradbury, 1998), one randomly chosen spouse was asked to "talk about something you would like to change about yourself" while the partner was instructed to "be involved in the discussion and respond in whatever way you wish." Spouses were instructed to avoid selecting or discussing any topics that were sources of tension or difficulty within the relationship. After a short break, a third discussion was held that was identical to the second discussion, with the roles reversed. Common topics included losing weight, making a career change, improving family relationships, and dealing with stress. Upon completion of the protocol, couples were debriefed and paid $75 for participating.

Behavioral Observation

Videotapes were scored by 16 trained coders using the Iowa Family Interaction Rating Scales (IFIRS; Melby et al., 1998). Coders – five of whom were native Spanish speakers – coded only in their native language. Coders participated in 10 hours of training per week for 3 months and were required to pass written and viewing tests at an 80% percent accuracy level before coding tapes. The criterion scores used to judge coder accuracy were determined by expert coders at the Institute for Social and Behavioral Research at Iowa State University, where the IFIRS was developed. During the coding process, coders also participated in two hours of continuing training each week, which consisted of a variety of structured activities (e.g., coding a tape as a group and watching examples of specific codes) designed to minimize drift and to ensure continued fidelity to the IFIRS codes.

Coders viewed each of the interaction tasks three to four times using the Noldus Observer XT coding software, using the built-in capabilities to note behaviors of both spouses. When they had completed viewing an interaction, coders used their recorded notations to tabulate the frequency and intensity of each type of behavior and used this information to assign a score for each spouse for each code, using the criteria from the IFIRS coding manual (Melby et al., 1998).

To assess reliability, 20% of the videos were randomly assigned to be coded by 2 coders chosen at random from the pool of 16 coders. The scores of the two coders were compared and any scores that were discrepant by more than one point were resolved by both coders working together. Thus the final set of scores used in analyses for the reliability tapes included scores that matched across the two coders during their initial individual coding (when codes were off by one point, the score from the randomly designated "primary coder" was used) and discrepant scores were replaced by the scores from the second joint coding. Factor analysis was used to reduce the IFIRS codes to three scales, representing positive affective behavior, negative affective behavior, and problem-solving behavior (see Williamson, Bradbury, Trail, & Karney, 2011).

Positivity—A composite positivity behavioral scale was created by averaging an individual's scores on the group enjoyment, positive mood, warmth/support, physical affection, humor/laugh, endearment, and listener responsiveness codes. A positivity score was calculated for each of the three discussion tasks, and then these three scores were used as indicators on the positivity latent variable. Alphas and ICCs of the behavioral scales are presented in Table 3.

Negativity—A composite negativity behavioral scale was created by averaging an individual's scores on the angry coercion, contempt, denial, disruptive process, dominance, hostility, interrogation, and verbal attack codes. A negativity score was calculated for each of the three discussion tasks, and then these three scores were used as indicators on the negativity latent variable.

Effectiveness—A composite effectiveness, or problem-solving skill, behavioral scale was created by averaging an individual's scores on the assertiveness, communication, effective process, solution quality, and solution quantity. An effectiveness score was calculated for each of the three discussion tasks, and then these three scores were used as indicators on the effectiveness latent variable.

Questionnaires

Relationship Satisfaction—Relationship satisfaction was conceptualized as spouses' global sentiment toward the relationship and was assessed by summing responses on an eight-item questionnaire. Five items asked how satisfied the respondent was with certain areas of their relationship (e.g., "satisfaction with the amount of time spent together"), and were scored on a 5-point scale (1 = *Very dissatisfied,* 2 = *Somewhat dissatisfied,* 3 = *Neutral,* 4 = *Somewhat satisfied*, 5 = *Very satisfied*). Three items asked to what degree the participant agreed with a statement about their relationship, (e.g., "how much do you trust your partner") and were scored on a 4-point scale (1 = *Not at all*, 2 = *Not that much*, 3 = *Somewhat,* 4 = *Completely*). Scores could range from 8 to 37. Husbands' and wives' relationship satisfaction were each used as indicators on the couple level relationship satisfaction latent variable. Coefficient α was .74 for wives and .72 for husbands.

Depressive symptoms—Depressive symptoms were measured by standardizing then summing responses to nine items from the Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). Three items assessed the frequency of the participants' feelings of global distress (e.g., "felt sad, blue, or depressed) over the past nine months, and were scored 1 if "yes" and 0 if "no". Six items assessed the frequency with which the participant experienced specific symptoms of depression (e.g., "hopeless", "everything was an effort"), and were scored on a 5-point scale (0 = *None of the time*, 1 = *A little of the time*, 2 = *Some of the time*, 3 = *Most of the time*, 4 = *All of the time*). Coefficient α was .78 for husbands and .76 for wives.

Stress—Two indicators, financial strain and stressful life events, were used to define the latent variable of couple stress over the past 9 months. For financial strain, five items assessed the degree of difficulty the couple has had fulfilling financial obligations and purchasing necessary items (e.g., "How much difficulty did your household have paying bills?"). Items were scored on a 4-point scale (1 = *no difficulty at all* or *never*, 2 = *a little difficulty* or *rarely*, 3 = *some difficulty* or *sometimes*, 4 = *a great deal of difficulty* or *often*). One additional item asked "At any time in the past 9 months, did you or other adults in your household cut the size of your meals or skip meals because there wasn't enough money for food?" scored 1 if "yes" and 0 if "no". Scores on the six items were standardized then summed for each participant, then husbands and wives scores were averaged, to form the

couple's score for financial strain. Coefficient α for financial strain was .76 for husbands and .75 for wives. The occurrence of stressful life events was assessed by summing items endorsed on the 13-item List of Threatening Experiences (Brugha & Craig, 1990; e.g., "lost your job", "someone close to you had trouble with immigration or was deported", "suffered from a serious illness, injury, or assault"). Husbands and wives scores were then averaged to form the couple level stressful events score. As the 13 items are a checklist of diverse events, endorsement of one item is not expected to make endorsement of any other item more likely; thus internal consistency was not computed.

Childhood Experiences—Each spouse's childhood experiences were defined as a latent variable with three indicators: parental divorce, primary caregivers, and environment in family-of-origin. Parental divorce was measured with a single item asking the participant whether their parents divorced or separated before they were 18 years old (coded 1 if "yes" and 0 if "no"). Primary caregiver was assessed with a single item asking, "Who was most responsible for raising you until the age of 14?" Responses were coded into two categories, 1 = raised by both parents, 0 = raised by a single parent, other relative or other non-relative. Environment in family-of-origin was assessed by three items measuring the closeness and happiness of the family prior to age 14 (e.g., "My parents' relationship would be a good example to follow for any married couple", "The members of my family were always very close to each other"), with 0 = true and 1 = false. Scores for the three items were summed to form the family environment score for each participant. Coefficient α for family environment was somewhat low, at .53 for husbands and .61 for wives.

Analytic plan

Latent variable structural equation models (SEM) were used because this approach offers many advantages that are important for the study aims and methodology. SEM allows for the creation of latent variables using multiple measured variables as indicators, which accounts for the measurement error in each of the observed variables, thereby yielding more accurate regression coefficients. Additionally, SEM is useful for the study of couples because it can account for the dependency between spouses. In the current study a large degree of dependency between the behaviors displayed by the spouses in each of the three discussion tasks would be expected because communication is a fundamentally dyadic behavior. Therefore the residuals of all of the observed variables from the husband social support task, the wife social support task, and the problem-solving task, respectively, were correlated to account for this dependency. Finally, SEM allows for all independent and dependent variables to be tested simultaneously, thereby testing the effects of each variable over and above all others. We obtained maximum likelihood estimates of the model coefficients using EQS software version 6.2 (Bentler, 2006), with missing data estimated using full information maximum likelihood methods.

Results

Descriptive statistics

Means and standard deviations of all measures are presented in Table 1. The mean relationship satisfaction scores of 33.91 ($SD = 3.00$) for husbands and 33.17 ($SD = 3.39$) for wives indicate that this was a highly satisfied sample, as is expected of newlyweds, though there was some variability (scores ranged from 21 to 37 for husbands and 13 to 37 for wives). Forty-one percent of husbands reported that their parents divorced or permanently separated before they were 18, and 32% reported that they were raised by someone other than both their parents before they were 14. Thirty-six percent of wives reported that their parents divorced or permanently separated before they were 18, and 36% reported that they were raised by someone other than both their parents before they were 14. Couples reported

fairly high levels of stress, with an average financial strain score of 12.99 ($SD = 5.24$) out of a maximum of 21 and an average of 4.12 ($SD = 2.79$) stressful events occurring in the past 9 months. Overall, the couples sampled report a wide range of stressors and diverse backgrounds. On the other hand, level of depressive symptoms was relatively low.

Zero-order correlations among the independent latent variables are presented in Table 2. Correlations ranged from small to moderate (|.01 - .57|, median = .21), suggesting that each independent variable captures an independent construct. All constructs correlated in the expected directions. Lower levels of relationship satisfaction correlated significantly with more difficult wife childhood experiences, higher levels of stress, and higher levels of husband and wife depressive symptoms. Higher levels of stress correlated significantly with higher levels of husband and wife depressive symptoms. Husband and wife childhood experiences were unrelated, but husband and wife depressive symptoms did covary at .28, $p < .001$.

Correlations between the dependent latent variables are presented in Table 2. Husband and wife measures of the same behaviors were moderately to highly correlated (.63 - .87). The three behavioral outcomes were low to moderately correlated among wives (|.11 - .29|), and among husbands (|.14 - .43|). In both cases positivity and effectiveness yielded the largest correlation. As expected, positivity and effectiveness correlated directly, while negativity correlated inversely with positivity and effectiveness.

Structural Equation Model

Figure 1 presents the tested structural equation model with standardized path coefficients. Because of the complexity of the model, only significant loadings are given in the figure; see Table 3 for all factor loadings in the model. All loadings for the indicators of latent constructs were statistically significant and at least moderate in magnitude (ranging from .52 to .77). The model fit the data well, exceeding the minimum value of .95 for the comparative fit index (CFI) and the maximum value of .05 for the root mean-square error of approximation (RMSEA) suggested by Hu and Bentler (1999) for a good model fit (CFI = .98, RMSEA = .03). The chi-square / degree of freedom ratio was also below 3, which indicates acceptable model fit, $\chi^2 (298) = 402$, $\chi^2/df = 1.35$ (Carmines & McIver, 1981).[1]

Higher levels of relationship satisfaction were significantly associated with higher levels of husband positivity ($\beta = .40$, $p < .01$), higher levels of wife positivity ($\beta = .50$, $p < .001$), and lower levels of husband negativity ($\beta = -.25$, $p < .05$).

Higher levels of stress were significantly associated with higher levels of husband negativity ($\beta = .44$, $p < .01$) and wife negativity ($\beta = .36$, $p < .05$), but not lower levels of positivity (husband $\beta = -.16$, $p > .05$; wife $\beta = -.11$, $p > .05$).

Higher levels of husband depressive symptoms were significantly associated with higher levels of husband positivity ($\beta = .17$, $p < .05$) and wife positivity ($\beta = .19$, $p < .05$) but not with levels of negativity (husband $\beta = -.15$, $p > .05$; wife $\beta = -.15$, $p > .05$). Higher levels of wife depressive symptoms were significantly associated with lower levels of husband negativity ($\beta = -.27$, $p < .05$) and wife negativity ($\beta = -.20$, $p < .01$) but not with positivity (husband $\beta = .14$, $p > .05$; wife $\beta = .12$, $p > .05$).

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[1]The model contains separate latent variables for husbands' and wives' childhood experiences and depression, and couple level variables for stress and relationship satisfaction. A model with separate husband and wife latent variables for stress and relationship satisfaction failed to converge.

Husband childhood experiences and wife childhood experiences were unrelated to the behavioral outcome variables. Additionally, the husband and wife effectiveness scores were unrelated to all of the predictor variables.

To determine if any of the predictor variables was significantly more strongly associated with the outcome variables than the other predictors, a series of chi-square difference tests was conducted. For each outcome variable, only the significant predictors were compared to each other. In the case of husband negativity, each of the three significant predictors was compared to a single other predictor, for three total tests. To determine if the strength of the factor loadings of the two predictors were significantly different, a model was run with the two factor loadings constrained to be equal. The fit of this model (measured by chi-square) was compared to the fit of the original model. If the fit significantly degraded when the loadings were constrained to be equal, then the factor loadings were considered to be significantly different.

Stress was more strongly associated with husband negativity than was wife depression, χ^2 (1) = 10.78, p = .001, and relationship satisfaction, χ^2 (1) = 16.77, p < .001. Stress was also more strongly associated with wife negativity than was wife depression, χ^2 (1) = 9.66, p = . 002. Relationship satisfaction was more strongly associated with husband positivity, χ^2 (1) = 7.41, p = .007, and wife positivity, χ^2 (1) = 12.05, p < .001, than was husband depression. Finally, relationship satisfaction and wife depression were not significantly different in their association with husband negativity, χ^2 (1) = 2.43, p = .12.

Discussion

Newlywed couples vary between themselves in the behaviors they display, and while the implications of these behaviors for later relationship functioning are becoming clearer, the reasons why couples differ in communication are not well understood. Understanding why couples display specific behaviors likely to maintain or compromise their relationship might shed light on the causes of relationship deterioration while also enabling identification of couples at risk for adverse outcomes and the preventive interventions that might reduce this risk. We adopted the perspective of the VSA model to identify several variables likely to covary with observed communication -- including financial strain, stressful life events, depressive symptoms, and childhood experiences -- and we examined them simultaneously in relation to observed positivity, negativity, and effectiveness in an effort to integrate and build upon prior findings in the couple interaction literature. Well-established associations between these factors and self-reported relationship satisfaction were controlled in our model so that associations independent of global sentiment toward the relationship could be examined. Data were collected during in-home visits with newlywed couples residing in low-income communities, recognizing that this is an understudied segment of the population and that the newlywed period is time of great transition for couples and young families, especially those with insufficient financial resources.

Five main findings stand out from this analysis. First, positive elements in couple communication covary most reliably with relationship satisfaction, more so than any other predictor variable. Where we might have expected ceiling effects on positivity and satisfaction to truncate this effect, especially in a newlywed sample, we nevertheless see that even shortly after marriage the happier couples are reliably engaged in more positive forms of interaction than are couples who are relatively less happy. Thus the positivity that couples display at this stage in relationships appears to be tied most closely to how they feel about the partner and the relationship, and this connection may help explain why lower levels of positive behaviors have proven to be potent predictors of 1-year increases in negative affect

during problem-solving (Sullivan et al., 2010) and potent moderators of associations between negative behaviors and relationship deterioration (e.g., Johnson et al., 2005).

Second, negative elements in couple communication covary most closely with spouses' reports of stress arising outside the relationship, indexed here with self-reports of financial strain and stressful events arising in the past nine months. Associations between negativity and stress (.44 for husbands' negativity, .36 for wives' negativity; see Table 3) were significantly stronger than associations between negativity and satisfaction (.25 for husbands and .25 for wives), and the effects of stress remained after controlling for relationship satisfaction and all other variables in the model. Evidence that stress is a more robust correlate of observed negativity than spouses' global sentiments toward the marriage is noteworthy and corroborates a key assumption of the VSA model and conceptually similar formulations (e.g., the systemic-transactional model proposed by Bodenmann, 1995). Assuming that this association is not an artifact of unmeasured third variables, this means either that stress is a cause of negativity (e.g., stress may spill over from work to increase displays of anger; stress may make negative reinforcement of negative partner behavior more likely), that negativity is a cause of stress (e.g., individuals with poorer interactional skills are selected into more challenging environments or otherwise generate stress in their lives), or that both effects are operating in a reciprocal fashion. More research is needed to distinguish among these possibilities, but the absence of any associations between stress and either positivity or effectiveness for husbands or wives lessens the likelihood that simple selection or generation mechanisms are operating. In any case, any of these three possibilities afford a richer explanation of why couples display negative behavior than is now apparent in the literature. The present findings are consistent with the possibility that stress contributes to the divisive and corrosive behaviors exchanged between spouses, supporting recent suggestions that improving social capital and living circumstances may bolster the contexts that enable disadvantaged couples to enact behavioral repertoires that will keep their relationships healthy and strong (e.g., Cutrona et al., 2011).

Third, when husbands reported more symptoms of depression, both spouses displayed more positivity; when wives reported more symptoms of depression, both spouses displayed less negativity. Though prior studies (see Rehman et al., 2008) would lead us to expect that depressive symptoms would covary with more negativity and irritability, and less positive engagement, these findings suggest instead that spouse behavior accommodates or adapts favorably to the potentially distressing symptoms of depression that either partner reports: wives display more sensitivity by showing more warmth and positivity, while husbands display more sensitivity by showing less negativity and criticism. How can we resolve these two positions? Higher levels of depressive symptoms, and the chronic experience of being married to a depressed partner, may well predict more negativity and less positivity. But at lower levels, like those reported by the present sample, depressive symptoms may be a healthy way that partners signal their need for closeness and connection. Indeed, the results obtained here correspond closely with those from a prior study, which used a sample of 60 newlywed couples and observational data to show that husbands endorsing relatively higher levels of negative affectivity tended to elicit more positive and supportive behaviors from their wives (Pasch, Bradbury, & Davila 1997). Both studies suggest that low levels of symptoms can serve as emotional cues that express vulnerability and invite connection; the present study extends this finding to women. However, it should also be noted that the zero-order correlations among depression and communication behaviors were in the expected directions (see Table 2), indicating that the counter-intuitive results from the full SEM model may simply be an artifact of the multiple control variables.

Fourth, despite having the highest mean values and the largest standard deviations of all classes of observed behavior (see Table 1), effectiveness of communication was unrelated to

all predictor variables in the SEM model. Regardless of reported satisfaction, financial strain or stressful events, depressive symptoms, and childhood histories, spouses did not vary systematically in their general abilities to communicate clearly, suggest solutions, listen well, request clarifications, and so forth. The pattern of results observed here is similar to results of one prior study in which IFIRS-derived scores on effective problem-solving were unrelated to husbands' and wives' depressive symptoms, marital distress, and financial strain (Conger, Reuter, & Elder, 1999). The relatively large sample size used here, and the significant results obtained for observed positivity and negativity, provide some basis for arguing that this particular domain of communication skills bears little relation to the wide set of predictor variables studied here, including relationship satisfaction. Longitudinal associations might yield different results (e.g., over time, effective communicators may have better marital outcomes than their less skilled counterparts) but at least with the cross-sectional findings presented here it appears that behaviors need to take on some kind of affective tone or valence before they come to be associated with stress, satisfaction, or depression. However, it should also be noted that there were significant zero-order correlations among effectiveness and the independent variables (see Table 2), indicating that the influence of effectiveness may decrease only when compared to other communication behaviors.

Finally, although the spouses studied here reported relatively high levels of family turbulence and instability – e.g., 36% of the wives and 41% of the husbands reported parental divorce or permanent separation -- these experiences were unrelated to the behaviors they displayed in the SEM model. The family and the parents' relationship has long been viewed as the crucible in which growing children learn interpersonal skills that they then rely upon when forming relationships in adulthood. The nonsignificant findings obtained here are therefore noteworthy, especially given positive findings reported previously with newlywed samples (e.g. Story et al., 2004) and relatively high levels of statistical power available here to detect effects. Modest alpha values for these indices may be responsible for these results, though other possibilities must also be acknowledged. For example, the long-term effects of adverse family experiences might be diluted either by relatively high levels of negativity and friction in intact families, or by a relatively low level of negativity in families that end in divorce or separation, or perhaps by a gradual societal acceptance of divorced families. Correlations shown in Table 2 indicate zero-order associations between family experiences and all observed behaviors that never exceed |.15|, indicating that the absence of effects in Figure 1 is not a result of controlling for possible mediators. More precise or more extensive measures of family of origin functioning may be required to represent this domain properly.

Although the current study is cross-sectional, and therefore equivocal about the causal link between contextual factors and communication, the results nevertheless hold implications for preventive programs aimed at improving relationship outcomes. Given the link between communication behavior and relationship satisfaction, it is not surprising that preventive programs often target communication and conflict-resolution as a way to improve relationships. However, the results of the current study demonstrate that communication behavior does not occur in a vacuum; between-couple variability in negativity covaries reliably with the daily circumstances and strains that young couples confront. We can speculate that couples with relatively high levels of negative communication who could benefit from skill-based preventive intervention may be burdened with financial challenges and stressful events which (even if self-generated) may make it difficult for them to participate in or complete the intervention, learn the skills being taught in the program, or employ the skills they have learned as they negotiate the early years of marriage. The present findings demonstrate that stress and negative communication are unlikely to be independent risk factors in the lives of low-income newlyweds, underscoring the value of

ongoing educational and preventive efforts to build strong couples and families by recognizing the contexts in which relationships are embedded (see Bradbury & Lavner, 2012).

Interpretation of the above findings should take into account the strengths of this study, including the collection of observational data from a large sample of low-income and predominantly ethnic-minority couples at a common stage in marriage, while recognizing several important shortcomings. First, cross-sectional data preclude all causal inferences, though we did note the importance of the mere association between stress and negativity, independent of satisfaction; longitudinal and experimental studies are needed to fully understand this link. Second, sampling only newlyweds in their first marriages, most of whom were quite satisfied with their relationship, limits our ability to generalize to more distressed couples, established couples, remarried couples, cohabiting couples, and gay and lesbian couples. Third, while collection of observational data does allow us to eliminate shared method variance between our predictors and our behavioral outcomes, we did not extract sequential patterns from this data. Patterns of interaction are ultimately what interventions are designed to alter, and while we expect our codes to inform those patterns (e.g., negative reciprocity is less likely when base rates of negativity are lower) we have not studied them directly here.

In conclusion, large theoretical and empirical literatures have refined understanding of how communication contributes to marital functioning, raising new questions about why couples vary in how they approach the personal and interpersonal challenges that they confront in their daily lives. Two findings from the present study seem especially important for addressing this question. First, low levels of positivity characterize couples who are relatively unhappy with their relationship, even as newlyweds, suggesting that the diminished rewards known to bring established couples into therapy many years later (Doss, Simpson, & Christensen, 2004) are already evident when couples are relatively satisfied. Second, high levels of negativity covary with high levels of stress and financial strain and, independently, with relatively low levels of relationship satisfaction. This finding suggests that greater appreciation for the factors that affect the display of communication skills may enable more couples, especially couples confronted with low incomes and difficult living circumstances, to achieve happier and healthier relationships.

Acknowledgments

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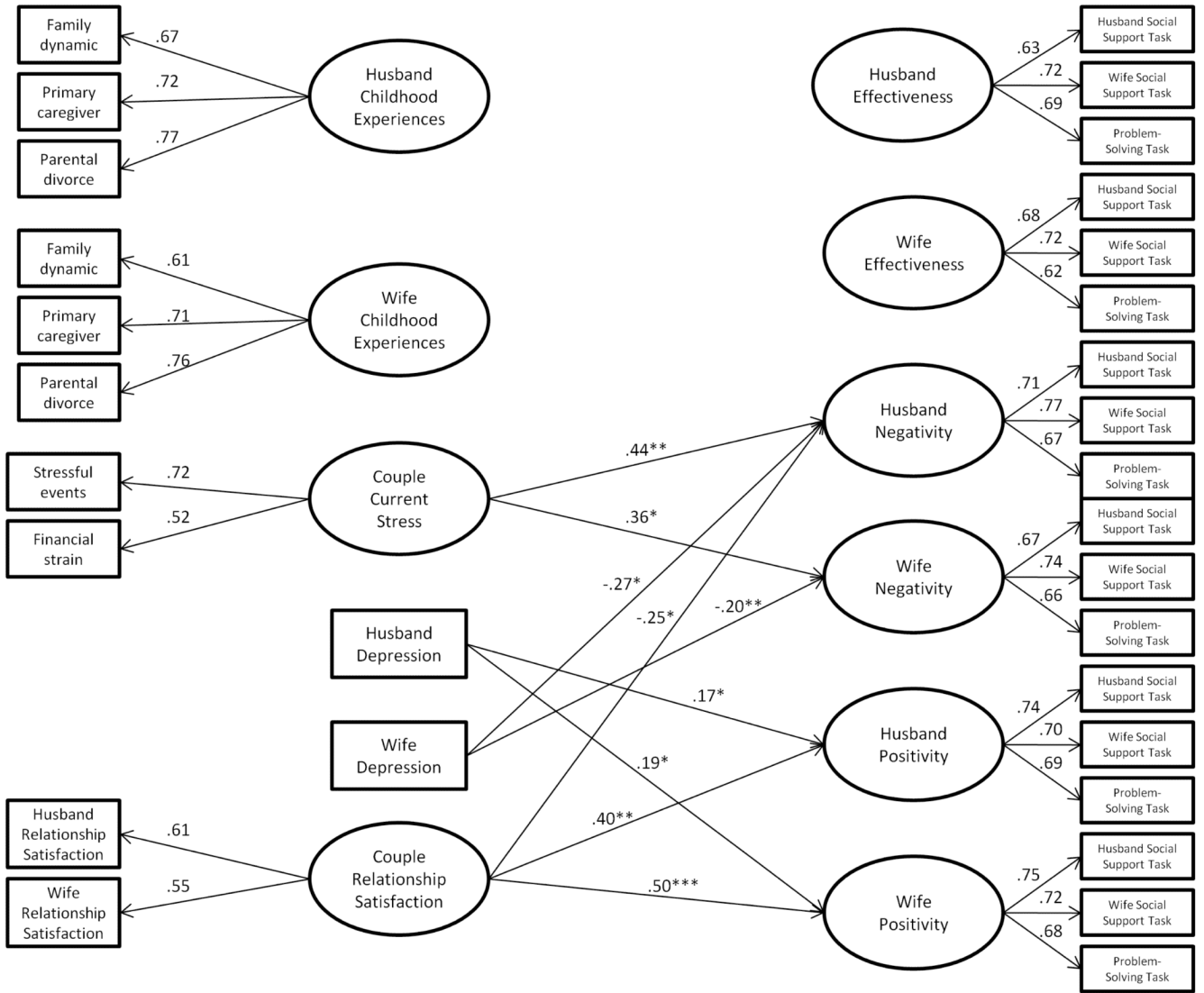
Figure 1.
Maximum likelihood estimation of the model testing all independent variables simultaneously.
Note. Standardized factor loadings are presented. Only significant paths are shown. The factor loadings for all observed parameters are significant at $p < .001$. CFI = .98, RMSEA = .03, $\chi^2 = 402$ (298), $\chi^2/df = 1.35$.
$*p < .05, **p < .01, ***p < .001$

Table 1

Means and Standard Deviations of All Observed Parameters for Each Construct (N = 414)

Construct	Variable	Mean	*SD*
Husband Childhood Experiences	Family Environment	0.78	0.87
	Primary Caregiver	0.32	0.47
	Parental Divorce	0.41	0.51
Wife Childhood Experiences	Family Environment	0.92	0.96
	Primary Caregiver	0.36	0.48
	Parental Divorce	0.36	0.49
Relationship Satisfaction	Husband Relationship Satisfaction	33.91	3.00
	Wife Relationship Satisfaction	33.17	3.39
Stress	Stressful Events	4.12	2.79
	Financial Strain	12.99	5.24
Husband Depression	Depressive Symptoms	4.45	3.53
Wife Depression	Depressive Symptoms	4.09	3.20
Husband Positivity	Husband Social Support Task	2.42	0.96
	Wife Social Support Task	2.56	1.01
	Problem-Solving Task	2.16	0.88
Wife Positivity	Husband Social Support Task	2.57	0.99
	Wife Social Support Task	2.36	0.91
	Problem-Solving Task	2.11	0.88
Husband Negativity	Husband Social Support Task	1.73	0.57
	Wife Social Support Task	1.85	0.66
	Problem-Solving Task	2.16	0.91
Wife Negativity	Husband Social Support Task	1.84	0.64
	Wife Social Support Task	1.79	0.58
	Problem-Solving Task	2.20	0.89
Husband Effectiveness	Husband Social Support Task	4.27	1.06
	Wife Social Support Task	4.32	1.16
	Problem-Solving Task	3.95	1.09
Wife Effectiveness	Husband Social Support Task	4.34	1.14
	Wife Social Support Task	4.42	1.03
	Problem-Solving Task	4.12	1.13

Table 2

Correlations Between All Latent Variables (N = 414)

	1	2	3	4	5	6	7	8	9	10	11	12
1. Husband Childhood Experiences	--											
2. Wife Childhood Experiences	.06	--										
3. Relationship Satisfaction	-.01	-.18***	--									
4. Stress	.13*	.22***	-.57***	--								
5. Husband Depression	.16**	.01	-.45***	.56***	--							
6. Wife Depression	.12*	.21***	-.43***	.49***	.28***	--						
7. Husband Effectiveness	-.03	-.11*	.18***	-.20***	-.10*	-.11*	--					
8. Wife Effectiveness	-.04	-.15**	.20***	-.18***	-.07	-.17***	.67***	--				
9. Husband Negativity	.06	.03	-.30***	.36***	.15**	.01	-.14**	-.14**	--			
10. Wife Negativity	.04	.01	-.29***	.31***	.12*	.03	-.18***	-.14**	.63***	--		
11. Husband Positivity	.02	-.08*	.35***	-.23***	-.06	-.06	.43***	.29***	-.21***	-.13**	--	
12. Wife Positivity	.08*	-.07	.42***	-.21***	-.05	-.08*	.24***	.29***	-.21***	-.11*	.87***	--

*
p < .05

**
p < .01

***
p < .001

Table 3

Factor Loadings Between Independent and Dependent Variables for Simultaneous Model

	Husband Positivity	Wife Positivity	Husband Negativity	Wife Negativity	Husband Effectiveness	Wife Effectiveness
Husband Childhood Experiences	−.01	.05	.07	.04	−.02	−.03
Wife Childhood Experiences	−.01	.02	−.06	−.08	−.06	−.09
Relationship Satisfaction	.40**	.50***	−.25*	−.25	.11	.14
Stress	−.16	−.11	.44**	.36*	−.14	−.08
Husband Depression	.17*	.19*	−.15	−.15	.03	.06
Wife Depression	.14	.12	−.27*	−.20*	.01	−.07
% variance accounted for	**15.8%**	**21.6%**	**21.3%**	**16.0%**	**4.9%**	**6.5%**
Alpha	.74	.74	.80	.78	.78	.78
ICC	.83	.81	.72	.81	.74	.80

Note. Factor loadings are standardized. ICC = intraclass correlation coefficient

*
 p < .05

**
 p < .01

***
 p < .001