



Couples' Diminished Social and Financial Capital Exacerbate the Association Between Maladaptive Attributions and Relationship Satisfaction

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Abstract

Background Theoretical and clinical perspectives argue that couples' maladaptive attributions for marital problems lead to marital distress and that these attributions will detract from couples' relationships regardless of their external circumstances. However, emerging work in cognitive psychology indicates that stress simplifies individuals' information processing, suggesting that the demands faced by couples may strengthen the link between maladaptive attributions and relationship satisfaction.

Methods With a sample of 462 ethnically diverse newlywed spouses living with low incomes (231 couples, with > 30% Black and > 50% Latinx), we assessed attributions and relationship satisfaction, along with three hypothesized moderators: couples' financial strain, perceived financial capital within couples' social networks, and the proportion of married couples within couples' social networks.

Results After replicating the robust association between maladaptive attributions and relationship satisfaction, we demonstrate that the association between maladaptive attributions and satisfaction is stronger to the extent that spouses' social networks are characterized by fewer financial resources and lower proportions of married couples.

Conclusion Contextual factors may alter the effects that partners' cognitions have on relationship satisfaction, suggesting that influences far removed from the dyad itself can affect basic processes arising between partners.

Keywords Attributions · Stress · Social networks · Relationship satisfaction · Moderation

Partners do not routinely agree on how they understand and explain issues occurring in their relationship, and relationship events do not always have a single objective meaning. The interpretations and causal attributions that partners offer for these events (e.g., ascribing the cause of problems to the partner versus the partner's circumstances) have long been theorized to influence the quality of intimate relationships (e.g., Jacobson and Moore 1981) and have been shown to correlate with observed couple behaviors (Bradbury et al. 1996; Bradbury and Fincham 1992) and to predict

relationship satisfaction cross sectionally (Jacobson et al. 1985; for reviews, see Bradbury and Fincham 1990; Fincham and Bradbury 1991), longitudinally (Fincham and Bradbury 1987b; Karney and Bradbury 2000), and experimentally (Fincham and Bradbury 1988). Understanding attributional processes contributed to the development of Cognitive-Behavioral Couple Therapy, which targets couples' arbitrary or distorted cognitive appraisals of events (Baucom and Epstein 1990), and a number of studies support the efficacy of this approach to treating relationship distress, particularly among white and middle-class samples (for reviews, see Baucom et al. 2015; Bradbury and Bodenmann 2020).

Despite the consistent evidence that attributions play an important role in how intimate partners respond to common relationship events, virtually all efforts to understand attributions assume that these effects are uniform across couples and independent of the various circumstances and contexts that different couples might inhabit. Yet there are good reasons to question this assumption. Frameworks such as the

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Vulnerability–Stress–Adaptation Model (VSA; Karney and Bradbury 1995; also see Bodenmann 2005), for example, explicitly argue that the way spouses make allowances for each other's behavior should covary with, and interact with, the challenges they encounter outside their relationship. Indeed, as we describe next, there are good reasons to expect that cognitive processes in relationships will be responsive to demands from the environment.

As implied within the larger literature in cognitive psychology, a full understanding of couples' appraisals requires acknowledgement of the limits to human capacity when cognitive processing is overloaded. Whereas attributing behaviors to another's disposition (internal attributions) is relatively automatic and requires little conscious attention, attributing those same behaviors to situational factors (external attributions) is a more deliberate and controlled executive function and is associated with greater activation in the prefrontal cortex. Indeed, in experimental studies, the ability to generate external attributions is impaired under conditions of high cognitive demand (Gilbert et al. 1988). To the extent that the challenging circumstances couples face are likely to tax their cognitive resources, such environments may similarly hamper individuals' capacities to make benign attributions for their partners' behaviors (e.g., Kubota et al. 2014). For example, spouses' experiences of stress predict the likelihood that they will blame their partner for negative behaviors in the marriage (Neff and Karney 2004); as stress increases, partner blame increases, and when stress subsides partner blame does as well.

Beyond any covariance between contextual demands and the attributions that partners make, demands may—more importantly—affect how attributions for specific behaviors become associated with partner's *global evaluations* of their relationships. For some people, even the experience of an irritating behavior from a partner does not speak much to the quality of the relationship as a whole. For others, evaluations of specific experiences and evaluations of the relationship as a whole are much more closely aligned. Stress in particular simplifies individuals' information processing and impairs the prefrontal cortex (Hammond 2000; Qin et al. 2009); during such times of high cognitive load, individuals are more likely to rely on shortcuts or heuristics (Shah and Oppenheimer 2008). External demands may thus dictate how specific marital events and the attributions for those events are integrated with global evaluations of the relationship, such that spouses who are depleted by stress may have less ability to distinguish between different levels of experience. That is, contextual influences may moderate associations between attributions and relationship satisfaction. Below we examine the specific contextual demands that may cognitively overload couples and serve to strengthen the negative association between dispositional attributions for relationship events and global marital satisfaction.

Bronfenbrenner (1986) outlines a conceptual perspective that, when extended to couple relationships, highlights the many ways in which couples are influenced by multiple layers of context ranging from more proximal factors such as couples' immediate living conditions to more distal factors such as the social systems in which they are embedded. Couples' immediate experiences of economic deprivation (or its opposite) may be considered an inner layer of context, and examining the interaction between economic deprivation and couples' attributions may be especially relevant given the literature on cognitive load. Specifically, living in poverty increases cognitive load, as impoverished individuals are forced to focus their attention on necessary trade-offs of anticipated and unanticipated expenses (Genetian and Shafir 2015; Mullainathan and Shafir 2013). In laboratory-based game experiments, participants who are given fewer resources deliberate longer on how they allocate their resources at the cost of poor decision making in other respects (e.g., borrowing resources at high interest rates despite future consequences; Shah et al. 2012). Other studies of individuals living in poverty indicate that experimentally inducing thoughts about finances reduces performance on cognitive tasks, and farmers who experience poor finances before harvest perform poorly on cognitive tasks compared to when they are wealthier after harvest (Mani et al. 2013). Thus, spouses' immediate experiences of economic deprivation may covary with a tendency to attribute marital problems to the characteristics of the partner as well as intensify the linkages between attributions for specific marital problems and global assessments of the relationship.

Beyond immediate experiences of economic deprivation, couples are also embedded in a larger ecosystem comprising of the couple's family and friendship networks (Bronfenbrenner 1986) that might also serve to heighten or buffer cognitive demands. Although characteristics of couples' social networks are considered more distal in nature, examining such network characteristics may be particularly relevant given that, for low-income couples lacking resources, the support of a strong social network may compensate for couples' high cognitive load. This idea is consistent with Hill's ABC-X model of stress, which posits that couples' existing resources interact with a given stressor to ultimately predict how well the couple is able to adapt (Hill 1949). In this paper we consider two sources of network support: financial capital and social capital.

Low-income families have been characterized as having extended social networks comprised of formal and informal family relationships and religious community members (Johnson and Staples 2004; McGlade et al. 2004). Low-income, ethnically diverse couples may benefit from extended social networks that provide financial support (Henly et al. 2005; Menjívar 1997; Scott and Black 1999), which in turn may alleviate couples' cognitive demands and

attenuate the costs of couples' maladaptive attributions. Other studies, however, suggest that impoverished individuals have fewer individuals in their networks who are able to provide support (Jackson et al. 2014; Timmer et al. 1996) and that one pervasive stressor is giving "out needed" support to family or fictive kin (Cattell 2001; Marks et al. 2008). Thus, a financially demanding social network may deplete couples' already limited cognitive resources and exacerbate the negative consequences of maladaptive attributions.

Social integration theory (Durkheim 1951), although developed in the context of individual outcomes, suggests that individuals' social networks establish definitions of normative behavior that may also serve as social capital beyond financial support from network members. When extended to relationship outcomes, having more connections to married than divorced individuals may serve as a resource by conveying that family stability is the norm rather than the exception (Wilson 1987). Indeed, longitudinal research indicates that a greater number of married individuals in a couple's network is associated with lower likelihood of divorce (Booth et al. 1991; McDermott et al. 2013), suggesting that couples are sensitive to the functioning of other couples in their immediate social environment. Couples may be particularly disadvantaged to the extent that they have fewer connections to other married individuals and less exposure to examples of successful marriages (Jackson et al. 2014). To the extent that married network members can model successful long-term partnerships in the face of hardship, for example, the negative effects of maladaptive attributions on relationship satisfaction may be mitigated.

Current Study

The goal of the present study is to understand how attributional processes—a well-studied and reliable correlate of relationship satisfaction—may operate differently as a function of the larger context in which couples' relationships form and develop. To do so, in Aim 1 we first attempt to replicate prior findings linking maladaptive attributions and relationship outcomes before describing linkages between couples' context and maladaptive attributions using a sample of couples living with low incomes. Here we expect to find, for example, that the tendency to make maladaptive attributions will be greater among those spouses experiencing greater financial strain. In Aim 2 we integrate conceptions of attributions and context by testing whether different facets of couples' contexts interact with maladaptive attributions to predict relationship satisfaction. We test for such interactions using the dimensions of context outlined above, namely couples' experiences of financial strain and the financial and social capital within couples' networks that serve as potential resources. Resolving the generalizability

of attributional phenomena across contexts is important; for example, evidence in support of an interaction would suggest that the association between how couples appraise specific events and their overall assessment of the relationship is dependent on couples' external demands. On the other hand, a lack of interaction between attributions and couples' contexts would demonstrate that associations between attributions and satisfaction are robust and essentially invariant, even across contexts that have high potential to diminish partners' cognitive capacities.

In an effort to capture a reasonable range of couples' economic, social, and interpersonal contexts, we sampled from low-income, ethnically diverse, first-married newlywed couples living in high-poverty communities. The use of this sample provided several advantages. First, a strong test of the interplay between context and couples' cognitions requires sampling from a diverse set of individuals and circumstances. Second, because relationship distress and dissolution are overrepresented (Copen et al. 2012) but understudied (Falconier and Epstein 2011) among economically disadvantaged and culturally diverse populations, we situated our study specifically within this population. Indeed, low-income couples may be most vulnerable to high levels of demands, and the variables we chose as moderators may be particularly influential or salient in this population. Third, sampling among newlyweds addresses a limitation of previous studies by ensuring that the least satisfied couples were not self-selected out of the sample.

The present study was also designed to address two limitations of prior studies of couples' networks by conducting extensive social network interviews. First, most studies of social networks have relied on spouses' global perceptions of the composition of their networks, preventing precise estimates of the proportion of network members with key characteristics. Second, even among the few studies that have asked individuals to list specific network members, the lists are generally restricted between five to 10 individuals comprised primarily of family members (Acock and Hurlbert 1993; Antonucci et al. 2004; Bost et al. 2002), thus ignoring more distal relationships or weaker ties that some argue are important for connecting individuals with diverse opportunities and information (e.g., relationships with coworkers; Marsden, 2005; Wellman and Wortley, 1990). As outlined below, we employed a recently-developed tool for social networks that overcomes these concerns and permits more a precise assessment of extended social networks.

Method

Sampling

Sampling was undertaken to yield newlywed mixed-gender couples living in high-poverty neighborhoods in Harris County, Texas, a region with a large and diverse population. Recently married couples were identified through names and addresses on marriage license applications. License records were obtained from the Harris County Recorder's Office between 2014 and 2015. Addresses were matched with census data to identify applicants living in high-poverty communities, defined as census block groups within Harris County for which no less than 30% of the households were categorized by the census as living below poverty (United States Census Bureau 2008–2012) and thereby oversampling an understudied and rarer population of couples living in high-poverty neighborhoods. A total of 4916 couples was identified through addresses listed on their marriage licenses. Among the couples identified, 3535 could not be reached and 1157 agreed to be screened for eligibility. These couples were screened on the telephone or in person to ensure that they were married and neither partner had been previously married. Of those, 506 couples were screened as eligible, and 401 of them agreed to participate in the study, with 231 couples actually completing the study. Out of the total sample who provided any data, the social network interview was completed by 229 husbands (99%) and by 225 wives (97%).

Participants

The sample consisted of 231 couples in their first marriages identified with the above procedures, yielding marriages that averaged 4.7 months in duration. Wives ranged in age from 18 to 56 years ($M = 28.35$, $SD = 7.52$) and husbands ranged from 18 to 53 years ($M = 29.16$, $SD = 7.33$). Fifty-three percent of wives and 52% of husbands were Latinx. Of the remaining participants, wives and husbands were either Black (35% and 32%, respectively) or White (9% and 10%), or Other/Multiracial (3% and 6%). Approximately 65% of couples had children, and household income averaged \$45,540 ($SD = \$41,343$). The majority of wives (54.1%) and husbands (59.7%) had less than or equal to a high school diploma/GED.

Procedure

Couples were visited in their homes by two interviewers who took spouses to separate areas to ensure privacy and orally administered self-report measures. Partners were then reunited for three 8-min videotaped discussions—a problem

solving discussion, husband social support discussion, and wife social support discussion. Interviewers then conducted the network interview. The RAND Corporation Institutional Review Board approved all procedures.

Social Network Interview

The composition of couples' social networks was assessed using a duocentric social network interview protocol (Kennedy et al. 2015) in which each spouse was asked to list and describe 25 members of their social network (i.e., *alters*). Spouses were interviewed separately, with social network interviews averaging 40 min in duration. Specific instructions for naming the network members were as follows:

To get started, I'd like for you to name 25 people that you know and who know you. Here's the kind of person we are hoping you will name: first, they have to be adults, aged 18 years old or older—do not give me the names of children under age 18; second, these should be people you have had contact with sometime during the past year or so—either face to face, by phone, mail, or email; third, these do not have to be people you like, just people you know and who know you. Let's start by naming your spouse, and after that you can name any adults you know no matter who they are or where they live. Please give us their first and last names. Remember, all of the information you give us is confidential.

For each of the alters they named, spouses were asked to report the gender, ethnicity, as well as other characteristics. In addition, spouses categorized their relationship with each alter among a set of non-exclusive categories (e.g., family member, friend, coworker, spouses' family, spouses' friend) and were allowed to pick more than one category for a given alter (e.g., own friend *and* spouse's friend). Spouses were also asked to report the frequency of contact with each given alter. Participants were allowed to skip any questions they preferred not to answer or to which they did not know the answer.

Measures

Relationship Satisfaction

Relationship satisfaction, conceptualized as spouses' global sentiment towards the relationship (Fincham and Bradbury 1987a), was an adapted measure using ten items from the Couple Satisfaction Index (CSI-16; Funk and Rogge 2007). Specifically, we employed the first 10 items of the 16-item version of the CSI and omitted the final 6 questions of the CSI-16 given that those items use a semantic differential rating scale that is difficult to implement with

orally administered interviews. Among the 10 items, one item assessed global relationship happiness and was rated on 6-point Likert scale while 9 items assessed for couples' satisfaction in certain areas of their relationship (e.g., "I feel like part of a team with my partner;" "I have a warm and comfortable relationship with my partner") using a 5-point scale (for a copy of the full measure, see Funk and Rogge 2007). Total scores range from 0 to 51 with higher scores indicating higher levels of satisfaction. Coefficient α was 0.94 for wives and 0.91 for husbands.

Maladaptive Attributions

Participants completed a version of the Relationship Attribution Measure (Fincham and Bradbury 1992) in which respondents were asked to, for each of six common areas of marital disagreement—household chores, decisions about money, time together, in-laws/family, moods/tempers, and affection/closeness—rate how much each issue was a problem "because of [your] spouse's behavior or something about him/her" on a 4-point scale [*not at all* (0), *a little bit* (1), *mostly* (2), *completely* (3)]. When spouses reported that a particular area (e.g., in-laws/family) was *not* an issue in the relationship, the attribution question for that area was skipped. This captures the extent to which endorsed marital problems are attributed to global and stable causes that are linked to the partner—that is, relatively dispositional attributions. The global and stable dimensions of attributional processes covary most consistently with relationship functioning (Bradbury and Fincham 1990, Table 3). Use of real behaviors as prompts for attributions has been shown to produce similar findings as hypothetical behaviors (Fincham and Beach 1988). Scores for all endorsed problem areas were averaged to create a composite index of couples' likelihood to make maladaptive, dispositional attributions for their marital problems. Values on the composite measure ranged from 0 to 3. Coefficient alpha was 0.74 for wives and 0.61 husbands.

Financial Strain of Couple

Using items from the Welfare, Children, and Families: Three-City Study questionnaire (Winston 1999), financial strain was measured with five items assessing the degree of difficulty the couple 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 [*no difficulty at all or never* (0), *a little difficulty or rarely* (1), *some difficulty or sometimes* (2), *a great deal of difficulty or often* (3)]. Scores on the five items were summed for each participant with possible scores ranging

from 0 to 15. Coefficient alpha was 0.73 for husbands and 0.79 for wives.

Perceived Financial Capital of Network

For each of the 25 named alters in the network interview, spouses were asked to report their perception of the alter's financial status [*struggling* (0), *getting by* (1), *doing well* (2)]. The mean perceived wealth of spouses' social network was calculated by averaging responses across all alters, and possible scores ranged from 0 to 2.

Social Capital/Marital Status of Network

For each of the 25 named alters, spouses were asked if a given alter was currently married. Responses were coded as *no* (0) and *yes* (1) and were used to calculate the percentage of married alters in the network; possible scores ranged from 0 to 1 (i.e., 0%–100%).

Analytic Plan

To test our research hypotheses, we applied the actor–partner interdependence model (APIM; Kenny et al. 2006) to predict relationship satisfaction. The dyad was treated as the unit of analysis, and participants' scores on the independent variable were used to predict their own scores (actor effects) and their partners' scores (partner effect) on the dependent variable. This approach treats partner data as nonindependent, and estimates of the effects control for the correlations between variables and between the residuals (Cook and Kenny 2005).

APIM analyses were calculated using structural equation modeling (SEM) in Stata version 14.2. For each of the three potential moderators outlined in the introduction, we conducted separate APIM analyses to test whether each contextual variable (i.e., financial strain, perceived financial capital, and social capital/marital status of network) significantly moderated the association between an actor's maladaptive attributions on the actor's relationship satisfaction. Each model included the actor and partner effects of maladaptive attributions, one contextual variable (e.g., financial strain), and the interaction between the two.

Results

Descriptive Statistics

Before turning to our bivariate correlations, we first describe the social network characteristics reported by our respondents. On average, a majority of husbands' and wives' listed

network members were family or personal friends (husbands: 82.25% of alters, wives: 85.45% of alters). Very few of the 25 possible alters listed were categorized as being a more distal relationship (e.g., spouse's friend, co-worker, neighbor, service provider, former romantic partner, or another type of distal relationship). In addition, spouses reported the frequency of face-to-face contact with each of their alters. Averaging across the 25 alters for each spouse, husbands and wives saw each alter an average of 7 to 8 times per month ($M=8.00$, $SD=4.81$ and $M=7.15$, $SD=4.12$ times per month, for husbands and wives respectively). In sum, the networks sampled here were comprised of individuals that our respondents knew well and saw with some regularity.

Means, standard deviations, and bivariate correlations among study variables can be found in Table 1. Descriptively, and consistent with Aim 1, we found that factors pertaining to couples' external demands and resources were significantly correlated to couples' likelihood of making maladaptive dispositional attributions. Specifically, husbands and wives reporting greater financial strain were more likely to attribute marital issues to characteristics of their partner (husbands: $r(215)=0.14$, $p=0.046$; wives: $r(222)=0.15$, $p=0.022$). In addition, husbands who perceived their social network members as relatively affluent were less likely to make dispositional attributions ($r(213)=-0.16$, $p=0.020$) while wives with more connections to married individuals were less likely to make dispositional attributions ($r(216)=-0.22$, $p=0.001$).

Do Maladaptive Attributions Covary with Relationship Satisfaction?

To replicate and extend prior findings linking spouses' attributions for marital problems and relationship outcomes, APIM analyses examined the actor effects of maladaptive attributions on satisfaction among low-income couples. Consistent with findings using middle-class samples (Bradbury and Fincham 1990), couples who attributed their marital

issues to characteristics of their partners were more likely to report lower relationship satisfaction (husbands: $z=-6.60$, $p<0.001$, wives: $z=-8.05$, $p<0.001$). Moreover, APIM analyses revealed significant partner effects as well: individuals who were blamed for issues by their partner also reported lower relationship satisfaction (husband attributions \rightarrow wife satisfaction: $z=-2.84$, $p<0.01$; wife attributions \rightarrow husband satisfaction: $z=-3.27$, $p<0.001$).

Do Contexts Moderate Attribution-Satisfaction Associations?

Couple's Financial Strain

Turning to Aim 2, we first evaluated whether spouses' immediate experiences of economic deprivation exacerbated the inverse association between maladaptive attributions and marital satisfaction. The association between attributing marital issues to characteristics of the partner and relationship satisfaction was not significantly moderated by couples' reports of their own financial strain (husbands: $z=-0.01$, $p=0.994$; wives: $z=-1.72$, $p=0.085$, see Table 2). That is, the negative association between maladaptive attributions and satisfaction was uniform across couples experiencing various levels of financial strain.

Social Network Resource: Perceived Financial Capital

Going beyond couples' immediate demands and stress, we examined whether the perceived financial capital of couples' social network members interacted with couples' attributions for marital problems to account for their marital satisfaction. The association between maladaptive/dispositional attributions and relationship satisfaction was moderated by the financial standing of husbands' and wives' social network members, such that the association was significantly weaker among spouses whose alters were perceived as doing well

Table 1 Mean, standard deviation, and bivariate correlations between main study variables

Measure	1	2	3	4	5
1. Relationship Satisfaction	0.50**	-0.42**	-0.23**	0.03	0.17**
2. Maladaptive Attributions	-0.49**	0.11	0.14*	-0.03	-0.16*
3. Financial Strain	-0.19**	0.15*	0.51**	-0.10	-0.20**
4. Network Proportion Married	0.13*	-0.22**	-0.08	0.40**	0.21**
5. Network Average Wealth	0.11	-0.09	-0.24**	0.19**	0.19**
Husbands: <i>M</i> (<i>SD</i>)	43.1 (7.9)	0.9 (0.6)	5.6 (3.1)	0.5 (0.2)	1.6 (0.3)
Wives: <i>M</i> (<i>SD</i>)	42.3 (8.8)	1.1 (0.7)	5.8 (3.2)	0.5 (0.2)	1.5 (0.3)

$N=231$ husbands and 231 wives. Intercorrelations between husbands' characteristics are reported above the diagonal and wives' characteristics are reported below the diagonal. Bolded values along the diagonal represent correlations between husbands and wives' characteristics

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

Table 2 Structural equation modeling coefficients for interaction effects between maladaptive attributions and resource characteristics on relationship satisfaction

Characteristic	Husbands b (SE)	Wives b (SE)
<i>Couples' financial strain</i>		
Fixed effects ^a		
Intercept	53.00 (2.60)***	50.90 (2.80)***
Actor effects		
Maladaptive attribution	– 5.20 (1.80)**	– 3.00 (1.70)
Financial strain	– 0.30 (0.30)	0.00 (0.30)
Partner effects		
Maladaptive attribution	– 1.30 (1.60)	– 3.10 (2.00)
Financial strain	– 0.10 (0.30)	0.10 (0.30)
Interaction effect		
Actor's attribution × financial strain	0.00 (0.30)	– 0.50 (0.20)
<i>Perceived social network financial capital</i>		
Actor effects		
Maladaptive attribution	– 17.70 (5.00)***	– 14.80 (3.80)***
SN average wealth	– 3.40 (3.00)	– 4.40 (3.10)
Partner effects		
Maladaptive attribution	– 8.20 (3.50)*	– 10.80 (5.50)*
SN average wealth	– 4.70 (2.90)	– 3.50 (3.30)
Interaction effect		
Actor's attribution × SN average wealth	7.70 (3.10)*	5.80 (2.50)*
<i>Social network social capital</i>		
Actor effects		
Maladaptive attribution	– 7.80 (2.20)***	– 11.60 (2.20)***
SN marital status	– 4.20 (4.80)	– 12.30 (5.50)*
Partner effects		
Maladaptive attribution	– 4.90 (2.10)*	– 4.10 (2.30)
SN marital status	– 8.20 (5.20)	– 1.70 (5.10)
Interaction effect		
Actor's attribution × SN marital status	4.80 (4.60)	12.70 (4.70)**

SN social network

^aThe values of the fixed effects for each subsequent model are not repeated in the table* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

financially (husbands: $z = 2.49$, $p = 0.013$; wives: $z = 2.34$, $p = 0.019$, see Table 2).

Figure 1a and b illustrate the interaction between maladaptive/dispositional attributions and the perceived wealth of husbands' and wives' social networks. As seen in the figures, among husbands (Fig. 1a) and wives (Fig. 1b) whose social networks were perceived to contain more financially struggling members (represented in light gray bars), those who attributed marital issues to the characteristics of their partners were the least satisfied in their relationships. Conversely, among husbands and wives with reportedly more affluent social networks, the negative association between maladaptive attributions and relationship satisfaction was attenuated or lessened.

Social Network Resource: Social Capital

Finally, we tested whether knowing a greater number of married individuals would buffer the adverse effects of maladaptive/dispositional attributions on relationship satisfaction. Among wives but not husbands, the negative association between maladaptive attributions and satisfaction was significantly moderated by the marital status of individuals in their social network. Specifically, the negative association was weaker among wives whose social networks contained a higher proportion of married individuals (husbands: $z = 1.05$, $p = 0.293$; wives: $z = 2.68$, $p = 0.007$, see Table 2).

As Fig. 2 illustrates, among wives who knew fewer married individuals (light gray bars), those who attributed marital issues to characteristics of their partners were the least satisfied in their relationships. Conversely, the inverse

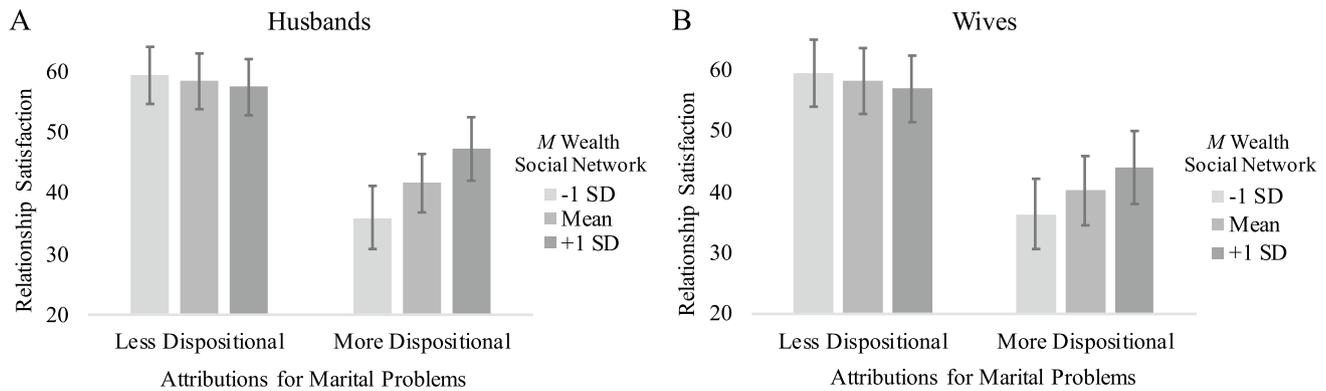


Fig. 1 Interaction between maladaptive/dispositional attributions and the average perceived wealth of social network members in predicting relationship satisfaction for husbands (a) and wives (b). Colored bars illustrate the association between maladaptive attributions and relationship satisfaction with levels of perceived network wealth equal to the sample mean or ± 1 SD from the mean. The negative association between maladaptive/dispositional attributions and satisfaction was exacerbated among spouses whose social networks contained rela-

tively less affluent social network members (light gray bars), while spouses who knew more reportedly affluent individuals did not suffer as drastically from dispositional attributions for marital issues (dark gray bars). Conversely, among husbands and wives who endorsed less dispositional attributions, the perceived wealth of their social network members was inconsequential in predicting their relationship satisfaction

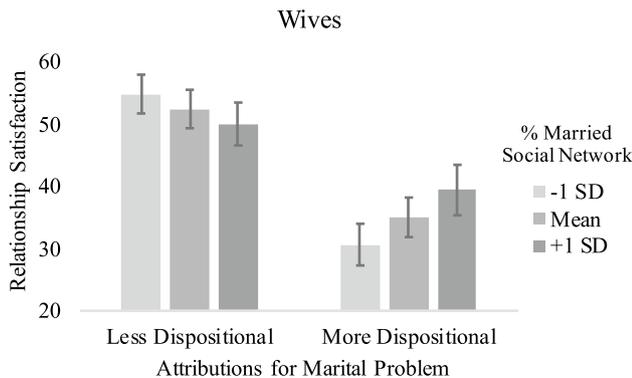


Fig. 2 Interaction between maladaptive/dispositional attributions and the proportion of married individuals in wives' social networks in predicting relationship satisfaction. Colored bars illustrate the association between maladaptive attributions and satisfaction with the proportion of married alters equal to the sample mean or ± 1 SD from the mean. Among wives who attributed marital issues to characteristics of their partner, wives who knew fewer married individuals were the least satisfied in their relationships (light gray bar) while wives who knew more married individuals reported higher satisfaction (dark gray bar). Conversely, among wives who endorsed less dispositional attributions, the marital status of their social network members was inconsequential in predicting their relationship satisfaction

association between maladaptive/dispositional attributions and relationship satisfaction was attenuated or lessened among wives who knew more married individuals (dark gray bars).

Discussion

Although most models of couple distress focus on couples' behaviors and the interpretations of such behaviors as key causes of relationship distress, other models proposed by Neff and Karney (2004, 2009, 2017) and Karney and Bradbury (1995) argue that outside stressors and resources can impinge on couples' relationships and thus influence their ability to make adaptive interpretations in the face of marital issues. We evaluated this claim by testing a number of dimensions of couples' contexts, including experiences of financial strain and the availability of resources from social network members using data collected during in-home visits with an extensive social network interview of 231 low-income, ethnically diverse newlywed couples.

Our first aim was to replicate prior research linking maladaptive attributions and relationship outcomes and to extend prior findings by examining associations between contextual demands and couples' explanations for marital issues among low-income and ethnically diverse couples. Consistent with the larger literature on cognition in relationships, we found that couples who attributed marital issues to characteristics of their partners reported lower relationship satisfaction. We also find that husbands' and wives' experiences of financial strain were significantly correlated with a tendency to attribute their marital problems to characteristics of their partners (Table 1). Such findings are consistent with prior cross-sectional and experimental research linking financial deprivation and cognitive deficits (Hammond 2000; Qin et al. 2009; Schwabe and Wolf 2009). While attributing marital problems to situational and external factors requires more deliberate and controlled executive function, couples

undergoing financial stress may be more likely to revert to relatively automatic dispositional attributions for their problems. Some social network resources were also negatively correlated with maladaptive attributions; specifically, husbands who perceived their networks to be affluent as well as wives who reported knowing more married individuals were less likely to attribute their marital problems to the characteristics of their partner.

With our second aim, we tested whether contextual demands affect how those attributions become associated or integrated with partners' global evaluations of their relationships. Specifically, we evaluated whether the association between attributions for specific marital issues and global satisfaction was stronger or weaker depending on couples' external demands or resources that might affect their cognitive load (i.e., an interaction effect). Findings from our first tested moderator—financial strain—indicate that the negative effects of maladaptive attributions were not dependent on couples' reports of financial strain. Thus, although husbands and wives reporting greater financial strain were more likely to report maladaptive attributions, the *implications* of such maladaptive attributions on relationship satisfaction were the same regardless of level of financial strain.

Expanding beyond the immediate financial resources of the couple, we examined the perceived financial capital of social network members in combination with attributional processes. Here, tests of moderation revealed that the perceived financial capital of social network members and maladaptive attributions uniquely combined in a multiplicative manner to predict relationship satisfaction (see Fig. 1a and b for husbands and wives, respectively). Specifically, the inverse association between maladaptive attributions and satisfaction was attenuated among husbands and wives whose social network members were perceived to be relatively affluent. Conversely, among spouses with relatively less affluent networks, the inverse association between maladaptive attributions and relationship satisfaction was exacerbated. These findings suggest that the perceived financial resources of couples' friends and family members may mitigate the negative effects of maladaptive attributions for specific marital issues, perhaps because the shortcomings of the partner and the issues themselves can be compensated for by the tangible resources of the network. This idea is consistent with other findings indicating that having a supportive network can be helpful as couples encounter stressors or crises (Veroff et al. 1995) and that social networks may serve a pivotal role in preventing already under-resourced couples from suffering additional hardship (Henly 2002; McAdoo 1998). In this way, the implications of having a blame-worthy partner for specific problems may be less severe if couples know that they have others to rely on.

Finally, we tested the interaction between maladaptive attributions and social capital from married individuals in

spouses' social networks, demonstrating that the proportion of married individuals in spouses' networks significantly moderated the association between attributions for specific problems and global satisfaction among wives. Specifically, the costs of attributing marital problems to partner characteristics on relationship satisfaction was attenuated among wives who had more connections to married individuals (see Fig. 2). These findings lend support to the idea that connections to married individuals can serve as a resource, potentially because these individuals serve as role models for stable relationships (Wilson 1987) or because these individuals can normalize marital issues and potential faults of a partner. The latter explanation may be most likely given that, in the absence of maladaptive attributions, wives who knew relatively fewer married individuals in their network did not differ from wives with greater connections. Classic attribution theory suggests that individuals use consensus information as one source of information (Kelley 1967; Weiner 1985) and are most likely to compare themselves to their most relevant comparison group—married members of their own social network (Festinger 1954). Given that wives are more likely than husbands to discuss marital issues with social network members (Helms et al. 2003), wives in particular may be sensitive to the functioning of other married couples who may serve as a comparison for the meaning and significance of having marital issues. Within this framework, the negative effect of spouses attributing specific marital issues to the qualities of their partner should be less consequential to their global assessment of their relationship if the spouses are surrounded by couples who also attribute issues to the characteristics of their partners.

In sum, we find that immediate experiences of financial strain are associated with couples' likelihood of forming dispositional attributions; evidence was more mixed for the idea that couples' social networks would be associated directly with the attributions couples make. Whereas prior studies attempting to address *why* people blame their partners have focused on factors related to the individuals (e.g., their personality traits; Fincham and Bradbury 1989) and their relationships (e.g., their unhappiness), our study sheds light on possible ways in which external stressors might also explain why individuals blame their partners. Apart from understanding *why* people form dispositional attributions, our study also sought to understand the factors that might *magnify* the effect of dispositional attributions once they are already made. In other words, when couples attribute their marital issues to their partner, the implications for such attributions on their overall relationship satisfaction appear to be influenced by characteristics of couples' networks. Although we did not make a priori predictions about differences in effects between financial strain and social network variables, one possible explanation is that attribution formation is more sensitive to proximal factors bearing directly

upon the partners themselves, whereas the implications of those experiences for relationships is more sensitive to social comparison processes (Festinger 1954). Because this is the first study to examine the interplay between financial strain, social network characteristics, and attributions, our interpretations are necessarily speculative. Further research is needed to understand why financial strain may play a more important role in attribution formation, whereas social network characteristics play a more important role in determining for whom those attributions may have the greatest consequences.

Strengths, Limitations, and Implications.

Several factors temper interpretation of our findings. First, we remain tentative about the results of the study because, although we found some evidence that aspects of couples' context significantly interact with attributions, these results were not consistent across all tested moderators. This may be due, in part, to the fact that characteristics of spouses' context are more distal and therefore weaker determinants of relationship outcomes (as opposed to, e.g., negative affectivity; Traupman et al. 2011). Second, while our questions assessing couples' dispositional attributions (Relationship Attribution Measure; Fincham and Bradbury 1992) have been widely used among predominantly white samples (e.g., Horneffer and Fincham 1996) and had high reliability among our sample of low-income and ethnically diverse wives in the present study, the internal consistency of this measure was lower for husbands. We note, nevertheless, that the associations between maladaptive attributions and satisfaction were robust, whether considered as actor effects ($z > 6.6$) or as partner effects ($z > 2.8$). Third, our study employs correlational data rather than true experimental data and thus cannot support causal inferences. For example, it is possible that the association between context and cognitions is evident because individuals with certain cognitive styles (i.e., a tendency to blame their spouse) self-select into environments marked by financial insecurity and a social network comprised of individuals who cannot provide financial and social capital. It is also possible that measures of perceived social network affluence and marital status are proxies for other indicators of couples' social environments rather than proxies for couples' access to tangible support or emotional support from others who directly and explicitly normalize marital issues. Future studies using more precise measurements of social network characteristics are needed to confirm whether, for example, a network of married individuals is associated with greater discussion about marital issues with others. Fourth, although our data shed light on the ways in which perceived network affluence influence attributional processes, we cannot make claims about whether the findings generalize to "objective" measures of a network's

financial status. Moreover, interpretation of the moderating role of perceived social network wealth must take into account the preponderance of network members who are somewhat distal to our respondent and who therefore are unlikely to serve as a source of financial support. We have demonstrated that approximately 85% of the identified network members are family and friends, indicating that a non-trivial number of network members (e.g., coworkers) might be unavailable to provide such support. Finally, we cannot make any claims about whether the phenomena we observe here generalize to same-sex couples or couples at later stages in their relationships.

Despite these limitations, our findings cast doubt on the assumption that the effects of cognition on relationship outcomes are uniform across individuals and contexts and therefore challenge prior assumptions that maladaptive attributions act as an unmoderated correlate of satisfaction. This study is one of the few to provide a direct test for how context interacts with couples' attributions to predict relationship satisfaction (cf. Neff and Karney 2004, 2009). We build on the contributions of Neff and Karney by studying the specific conditions that might constitute sources of stress (or support) as well as by examining more distal contextual influences within couples' social networks. Moreover, the study of low-income and predominately ethnic-minority couples—a population vulnerable to marital distress yet understudied—extends prior findings. Specifically, sampling from a diverse set of individuals at a common stage in marriage and measuring a wide range of stressors provided a reasonably strong test of any possible interaction between context and cognitive appraisals. The use of extensive social network interviews assessing for the characteristics of 25 individuals in spouses' lives is also a strength of our approach as it allowed for precise estimates when describing social networks rather than relying on spouses' own global perceptions.

Ultimately, although the attributions that partners make may very well be a fundamental process in intimate relationships, the formation of those attributions and how those attributions become integrated into judgements of overall relationship satisfaction may be governed in part by factors that are far removed from the relationship itself. Clinicians attempting to modify couples' cognitions may benefit from appreciating the possibility that such cognitions may be a reflection of extradyadic circumstances in addition to inter- and intra-personal factors. Pending replication, future research might determine whether we can directly and practically leverage social networks to mitigate the negative effects of maladaptive attributions on relationship satisfaction.

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Data Availability The dataset generated and analyzed during the current study is not publicly available as the sharing of these data was not approved by the institutional review board and participants did not consent to publication of their individual or dyadic data. The datasets, however, are available from the corresponding author on reasonable request.

Compliance with Ethical Standards

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

Informed Consent All participants provided informed consent for their participation in this study.

Animal Rights No animal studies were carried out by the authors for this article.

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