

**Benefits of Capitalization in Newlyweds:
Predicting Marital Satisfaction and Depression Symptoms**

by

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B.A. (Hons.), Simon Fraser University, 2005

Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts

in the

Department of Psychology
Faculty of Arts and Social Sciences

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Simon Fraser University

Spring 2013

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Abstract

I examined contemporaneous and time-lagged associations between capitalization perceptions and marital satisfaction and depressive symptoms in 193 newlywed couples over two years and whether chronic stress moderated the effects of capitalization perceptions. Within-spouse multi-level analyses indicated that capitalization perceptions predicted contemporaneous and time-lagged changes in marital satisfaction. Although capitalization perceptions did not predict contemporaneous changes in depression symptoms, capitalization perceptions predicted subsequent decreases in wives' depression symptoms. Further, as wives' chronic stress increased, there was a stronger positive association between capitalization perceptions and contemporaneous marital satisfaction and a stronger negative association between capitalization perceptions and contemporaneous depression symptoms. Results highlight how celebrating successes and good fortune can set spouses on a trajectory towards individual and relationship well-being.

Keywords: Capitalization; marital satisfaction; depression; chronic stress; longitudinal

Acknowledgements

I would like to thank Dr. Rebecca Cobb for her guidance, support, and encouragement during the completion of this work and throughout the entire graduate school process. I would also like to thank Dr. Kim Bartholomew and Dr. Natalee Popadiuk for their time and feedback.

I extend my love and sincere gratitude to my partner Ryan for his unending support and patience, and for providing me with a refuge and sense of steadiness. Genuine affection and appreciation is also owed to each member of the Circle of Trust, as they have provided me with the laughter, encouragement, and commiseration necessary to make completion of this project possible.

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Introduction

Relationships characterized by aggression, chronic stress, depression, or poorly managed conflict are less successful and stable than relationships characterized by an absence of relationship conflict, mental illness, or persistent stress (e.g., Randall & Bodenmann, 2009; Whisman, 2001). However, the focus on risk factors for relationship distress and mental illness has yielded an incomplete picture of how relationships and psychological symptoms develop over time. Expanding the scope of research to include dyadic interactions other than conflict could yield a better understanding of how individuals and relationships prosper. One promising line of research is on capitalization, which is the process by which individuals celebrate successes and good fortune and thereby derive additional benefit from the experience (e.g., Gable, Reis, Impett, & Asher, 2004; Langston, 1994). Individuals who celebrate good news by disclosing their achievements to others report increases in positive mood and life satisfaction compared to individuals who do not celebrate. Further, these benefits are independent of those accrued from experiencing the positive event per se (Gable et al., 2004; Langston, 1994). Although sharing good news or marking positive events is beneficial, partners' responses to capitalization attempts are also important. Responses characterized by genuine interest and enthusiasm, as opposed to criticism, disinterest, or minimization, predict relationship quality and stability over time (Gable, Gonzaga, & Strachman, 2006; Gable et al., 2004; Logan & Cobb, 2012).

Although there are clear, but perhaps transient, benefits to sharing good news with others, research to date has been primarily cross-sectional and focused on individuals in dating relationships. Further, there has been little exploration of whether capitalization affects longer-term changes in relationship satisfaction or psychological well-being (e.g., symptoms of depression), particularly in a dyadic context. Furthermore, given the relative novelty of this research area, it is not surprising that the focus has generally been on the predictors and outcomes of capitalization perceptions. However, focusing on contextual factors (e.g., chronic stress) that may moderate the associations between capitalization perceptions and intra- and interpersonal well-being might provide a greater

understanding of when capitalization processes are most important for individual and relationship outcomes. I addressed these gaps by examining whether capitalization perceptions predicted changes in marital satisfaction and depression symptoms, and whether chronic stress moderated associations between capitalization perceptions and intra- and interpersonal outcomes.

Capitalization and Relationship Satisfaction

Partner responsiveness is central to the creation of intimacy in close relationships (Laurenceau, Barrett, & Pietromonaco, 2004), and intimacy is an important predictor of relationship satisfaction (Greeff & Malherbe, 2001). Disclosing personal events and experiences may be one way for individuals to foster feelings of closeness and intimacy (Laurenceau et al., 2004) thereby satisfying their desire to develop interpersonal connections with others (Baumeister & Leary, 2000). People view others who respond with interest and enthusiasm to their disclosures of good news as more likeable and friendly (Reis et al., 2010), and enthusiastic partner responses predict greater concurrent and one-year relationship satisfaction (Gable et al., 2004; Gable et al., 2006; Logan & Cobb, 2012). When partners are responsive and interested in individuals' good news, individuals may feel emotionally validated and understood. Partner responsiveness may also signal that partners are invested in and committed to the relationship, leading individuals to feel positively about their partner and their relationship. Unfortunately, partners may not always live up to positive expectations or may be disinclined or incapable of responding with excitement to individuals' good news. In these cases, disclosing individuals may experience reductions in positive feelings and increased displeasure with their partner. If such unenthusiastic or negative responses to good news become characteristic of couples' interactions, it could lead to declines in relationship quality over the longer term. Thus, I predicted that perceiving partners as responding with happiness and support to good news would be positively associated with concurrent marital satisfaction and changes in marital satisfaction over two years.

Capitalization and Intrapersonal Well-Being

People who capitalize by disclosing their good news to others report greater positive affect and life satisfaction compared to people who do not mark their success or

good fortune in some way (e.g., Gable et al., 2004; Langston, 1994). Although these benefits are in addition to those associated with experiencing the positive event per se, it is unclear whether capitalization yields longstanding intrapersonal benefits. Celebrating positive experiences with close others may help to broaden and build individuals' internal and external resources by highlighting events in memory thereby making them more accessible for future recall (e.g., Gable et al., 2004) or by triggering additional mood-congruent emotions or memories (e.g., see Forgas & Eich, 2013 for a review). Moreover, the added positive experiences generated by successful capitalization (e.g., going out for a nice dinner or drinks with friends), may become linked to the memory of original event and thereby lead to a resurgence of positive feelings when either the event or the capitalization experience is recalled. Although depressed or dysphoric individuals typically recall mood-congruent information (Hertel, 2004; Miranda & Kihlstrom, 2005), there is evidence that certain personal (e.g., McFarland, Buehler, von Rütli, Nguyen, & Alvaro, 2007) or contextual factors (e.g., Sakaki, 2007) may make individuals more likely to recall mood incongruent versus mood congruent information. Thus, individuals who can draw upon a fund of positive capitalization experiences may be better equipped to recall positive emotions and experiences thereby reducing the possibility of persistent or enduring changes in mood compared to individuals who do not have a fund of positive capitalization experiences upon which to draw. Alternatively, the shared positive experiences resulting from successful capitalization attempts may help individuals establish a foundation of support and a belief that partners are available and dependable. Feeling confident about partners' availability and positive regard may increase individuals' mood, feelings of self-worth, and general pleasure in life. Thus, when negative life events do occur, individuals may be more resilient to the negative emotional impact and experience fewer symptoms depression (e.g., low mood, anhedonia, poor concentration). However, when partners regularly appear disinterested or critical of good events, individuals may feel chronically undervalued thereby fuelling the development or maintenance of depressed mood and cognitions and perhaps eroding the positivity of the event itself. Thus, I predicted that positive capitalization perceptions would be associated with fewer symptoms of depression concurrently and over time.

Chronic Stress as a Moderator

Although sharing the good times in life may be a source of joy, I expected that the association between capitalization perceptions and relationship satisfaction and depression symptoms would be stronger for individuals faced with chronic stress. Coping with ongoing stressors such as unemployment, financial uncertainty, or family discord, may make individuals more sensitive to their partners' behaviour, whether positive or negative. Thus, negative perceptions of partners' responses to capitalization attempts may result in steeper declines in relationship satisfaction and stronger increases in feelings of sadness for chronically stressed people compared to people who have less stress. This may be because those experiencing less chronic stress have a greater capacity to excuse negative partner behaviour (e.g., Graham & Conoley, 2006) or may be less dependent on positive partner responses for feelings of well-being. Likewise, coping with ongoing stressors may amplify the importance of positive capitalization processes; when individuals are feeling overburdened or pressured in their lives, the value of celebrating accomplishments with partners who respond with appreciation, interest, and support may be magnified for relationship and individual well-being compared to when life is less complicated and stressful.

Current Study

The purpose of this study was to examine whether capitalization perceptions predicted marital satisfaction and depression symptoms in newlywed couples over two years. I also examined whether the associations between capitalization perceptions and marital satisfaction and depression symptoms became stronger for spouses who reported greater chronic stress experiences. First, I predicted that spouses' perceptions of partners' responsiveness to their disclosures of good news would be positively associated with spouses' marital satisfaction, such that greater satisfaction would be linked over time to perceptions of partners responding with enthusiasm and interest to spouses' good fortune. Second, I expected a similar pattern to emerge for symptoms of depression; positive capitalization perceptions would be associated with fewer symptoms of depression concurrently and over time. Finally, I predicted that the association between capitalization perceptions and marital satisfaction, and between capitalization perceptions

and depression symptoms, would be stronger for spouses faced with more chronic stress than for spouses faced with less chronic stress. Given the association between neuroticism and marital outcomes (see Karney & Bradbury, 1997 for review), and between neuroticism and the severity and course of depressive symptoms (e.g., Brown & Rosellini, 2011; Hutchinson & Williams, 2007; Jylhä & Isometsä, 2006), I controlled for neuroticism in all analyses.

Method

Participants

Participants were 193 engaged couples living in the Metro Vancouver area who married within six months of beginning the study. Eligible couples were between 18-45 years old, fluent in English, without children, entering their first marriages, and planning to marry within six months of starting the study. These criteria helped to ensure that couples were experiencing similar life events and had not faced issues related to parenthood or divorce (see Rogge et al., 2006 for a discussion of the costs and benefits of similar sampling strategies). Prior to marriage, couples had dated for an average of 3.9 years ($SD = 2.81$) and 119 (65%) of the couples cohabited. All couples married within six months of beginning the study (Time 1) and by Time 2 (six months later), couples had been married for an average of 3.4 months ($SD = 2.10$).

At Time 1 (T1), husbands averaged 29.4 years of age ($SD = 4.8$), had an average annual income that ranged from \$30,000 - \$39,999, and averaged 12.6 years of education ($SD = 6.5$). At T1, wives averaged 27.6 years of age ($SD = 4.2$), had an average annual income that ranged from \$20,000 - \$29,999, and averaged 13.4 years of education ($SD = 6.0$). Of the husbands, 74% were Caucasian, 14% were Asian, 3% were Indo-Canadian, 2% were Middle-Eastern, 1% were First Nations, and 4% identified as “other.” Of the wives 71% were Caucasian, 18% were Asian, 6% were Indo-Canadian, 1% were First Nations, and 3% identified as “other.” The majority of participants were Christian (44% of husbands and 47% of wives) or had no religious affiliation (49% of husbands and 39% of wives).

Procedures

The Simon Fraser University Research Ethics board approved all procedures. Couples were recruited through (a) advertisements in newspapers and businesses that provided wedding-related services, and on wedding-related electronic bulletin boards, community notice boards, and campus electronic notice screens, (b) television and print media coverage, (c) announcements mailed to local religious organizations, and (d) bridal

shows. Interested individuals ($N = 617$) contacted the lab in response to recruitment efforts, or in some cases, lab staff contacted potential participants through mailing lists provided by the bridal show organizations. One member of the couple completed a 15-minute screening interview to determine eligibility. Of the couples screened ($n = 493$), 237 were eligible to participate, and of those, 16 declined to participate prior to receiving T1 questionnaires. Of the remaining couples who contacted the lab, 94 were not screened despite repeated attempts to contact and 30 contacted the lab after we had completed recruitment for the study and thus did not complete the screening interview.

Immediately following the screening interview, eligible couples who agreed to participate ($n = 221$) were sent an email with information about the study and an electronic version of the consent form. Approximately three months prior to their wedding date, participants received an email with a link to T1 questionnaires, a unique ID number, a password to access the questionnaires, and the consent form as an email attachment. Questionnaires were hosted on a secure university server and participants were required to read the consent form and indicate their consent to participate by clicking a radio button, which then permitted access to the online questionnaires. Participants were asked to complete their questionnaires in private and not to discuss the questions or their responses with their partners.

Of the 221 couples who were sent T1 questionnaires, 202 brides and 198 grooms completed at least some of the T1 questionnaires, and 193 dyads completed all of the T1 questionnaires that are the focus of this study and thus were included in the analyses. Of the 193 couples included in the current study, 16 couples dropped out of the study, and four couples separated or divorced. Analyses indicated no differences between couples who completed the study ($n = 173$) and couples who dropped out of the study or dissolved their relationship ($n = 20$) on capitalization perceptions, marital satisfaction, depression symptoms, chronic stress, or neuroticism.

With the exception of neuroticism, which was assessed only at T1, couples completed questionnaires assessing capitalization perceptions, marital satisfaction, depression symptoms, and chronic stress approximately 3.1 months prior to their wedding date ($SD = 1.2$ months) and then every six months thereafter to yield five waves of data (Times 2 - 5) (see Appendix for measure items). Participants also completed four

brief marital satisfaction questionnaires approximately half way through the six-month interval between each time point and visited the laboratory twice (at T2 and T5); these questionnaires and procedures are not included in these analyses. Couples received \$425 for their participation as follows: \$75 at T1, \$100 at T2, \$50 at T3 and at T4, and \$150 at T5.

Measures

Capitalization perceptions. Perceived Responses to Capitalization Attempts (PRCA; Gable et al., 2004) is a 12-item measure of participants' perceptions of romantic partners' general responses to disclosures of positive news or experiences. The measure yields four 3-item subscales [Active-Constructive (AC), Passive-Constructive (PC), Active-Destructive (AD), and Passive-Destructive (PD)] that are rated on a 7-point scale from "*Not at all true*" to "*Very true*." Sample items include "My partner reacts to my good fortune enthusiastically" (AC), "My partner says little, but I know he/she is happy for me" (PC), "My partner points out the potential downside of the good event" (AD), and "My partner doesn't pay much attention to me" (PD). Total scores are obtained by reverse coding items from the PC, AD, and PD subscales and averaging across all items to yield a score reflecting overall positivity of partner responses to capitalization attempts (cf. Logan & Cobb, 2012). Higher scores reflect more positive perceptions of partner responses. Reliability for the total scale (coefficient alpha) was high at all five time points (average husband $\alpha = .85$; average wife $\alpha = .86$).

Marital satisfaction. The Quality of Marriage Index (QMI; Norton, 1983) is a widely used 6-item global measure of marital satisfaction. Five items (e.g., "Our relationship is strong") are rated on a 7-point Likert-scale, from "*Very Strong Disagreement*" to "*Very Strong Agreement*," and one item ("All things considered, how happy are you in your relationship?") is rated on a 10-point scale, from "*Very Unhappy*" to "*Perfectly Happy*." A total score is derived by summing responses to items and can range from 6 to 45; higher values represent greater marital satisfaction. The QMI has good psychometric properties and reliably differentiates between distressed and non-distressed couples. Over five waves of data, coefficient alphas met or exceeded .90 and averaged .95 for husbands and .93 for wives.

Depression symptoms. The Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996) is a commonly used 21-item self-report measure of depression symptoms experienced during the previous two weeks. For each item, participants select one of four statements reflecting increasing symptom severity, which are scored on a 0-3 scale (e.g., 0 = "I do not feel sad"; 1 = "I feel sad much of the time"; 2 = "I am sad all the time"; 3 = "I am so sad or unhappy that I cannot stand it"). A total score is calculated by summing the items and can range from 0 to 63. Coefficient alphas for the total scale were high at all five time points (average husband $\alpha = .84$; average wife $\alpha = .89$).

Chronic stress. The Chronic Stress Questionnaire (CSQ; Hammen et al., 1987) assesses chronic stress in multiple domains (i.e., family of origin, in-laws, friends, work, school, homemaker duties, parenthood, finances, personal health, and extended family health). The measure includes an item that reflects ongoing stress in the marital relationship, but this item was excluded from the scale to avoid conceptual overlap with marital satisfaction. Participants consider all facets of each domain over the last six months and give appropriate weight to areas that have more impact on their overall experience of stress. For example, for the work domain, participants consider their working conditions, stability of employment, pressure to complete tasks within a specific period, wages and benefits, and relations with co-workers and supervisors. Participants rated each item on a scale of 1 to 9; each anchor point was a paragraph description of the domain that reflected increasing chronic stress with higher number values. Chronic stress scores were calculated by averaging across domains (excluding marital stress).

Neuroticism. The Neuroticism subscale of the Eysenck Personality Questionnaire (EPQN; Eysenck & Eysenck, 1978) is a widely used 23-item self-report measure that assesses mood lability and the degree to which participants experience a range of negative emotions. Sample items include "Does your mood often go up and down?" and "Are you often troubled by feelings of guilt?" Participants responded to each item by indicating either Yes or No, which are scored 1 and 0, respectively. A total score is obtained by summing participants' responses, which can range from 0 to 23. Coefficient alphas were .86 for husbands and .88 for wives. 189 heterosexual engaged couples living in the Metro Vancouver area. At T1, 118 (62.4%) couples were cohabiting and relationships averaged 4.13 years ($SD = 2.86$). By Time 2 (T2; six months later) couples

had been married an average of 3.55 months ($SD = 2.52$). At T1, husbands averaged 29.26 years of age ($SD = 4.87$) and 16.28 years of education ($SD = 3.10$), and their average annual income ranged from \$30,000 to \$39,999. Wives averaged 27.46 years of age ($SD = 4.20$) and 16.68 years of education ($SD = 2.40$), and their average annual income ranged from \$20,000 to \$29,999.

Of the husbands, 75% were Caucasian, 15% were Asian, 3% were Indo-Canadian, 2% were Middle-Eastern, and 5% identified as “other.” Of the wives, 71% were Caucasian, 19% were Asian, 6% were Indo-Canadian, 1% were First Nations, and 3% identified as “other;” 20% of the couples were interracial.

Overview of Data Analysis

Given the nested structure of the data (repeated measures within individuals), hypotheses were tested using multilevel modeling and the Hierarchical Linear Modeling software program (HLM 6.06; Raudenbush, Bryk, & Congdon, 2009). Specifically, I used a two level model in which repeated measures (i.e., capitalization perceptions, marital satisfaction, depression symptoms, and chronic stress) were modeled at Level 1 and individual variables were modeled at Level 2. Level 1 predictors were standardized (between-person across time) and entered as uncentered. With the exception of dichotomous variables (e.g., sex), Level 2 predictors were entered as grand mean centered. Standardizing variables prior to analyses allows for the interpretation of Level 1 and Level 2 coefficients as standardized betas, which facilitates interpretation of the relative strength of associations between covariates and outcomes. All coefficients were modeled as random (Nezlek, 2001); when model convergence was problematic, specific coefficients were fixed and this is noted in the text.

To account for the dependence of the data, husband and wife analyses were conducted simultaneously (Raudenbush, Brennan, & Barnett, 1995). I first conducted contemporaneous multilevel models to examine associations between time-varying covariates and outcomes, and then I conducted time-lagged multilevel models predicting outcomes at follow-up (Time_{T+1}) from predictors assessed at Time_T . Thus, lagged analyses examined associations across four lags: T1 – T2, T2 – T3, T3 – T4, and T4 – T5.

Results

Descriptive Analyses

Means and standard deviations for the main study variables are in Table 1. Participants generally held positive perceptions of their partners' responses to capitalization attempts (i.e., mean scores were above the midpoint of the scales), were satisfied in their relationships (i.e., spouses who score above 24.5 are considered maritally satisfied; Funk & Rogge, 2007), and had few symptoms of depression (i.e., participants who obtain score of 29 or above fall in the severely depressed range and participants who obtain a score of 13 or below fall in the minimally depressed range; Beck et al., 1996). Participant demographics (i.e., sex, race, education, relationship length) were not associated with main study variables at T1, with several exceptions. First, T1 relationship length was negatively associated with T1 perceptions of partner responses to capitalization attempts for husbands ($r = -.17, p < .05$) and wives ($r = -.14, p < .05$).¹ Second, wives reported greater depression ($t = -2.33, p < .05, d = -0.34$) and chronic stress ($t = -3.26, p < .01, d = -0.47$) at T1 than husbands. Average correlations among main study variables are in Table 2. Consistent with previous research and hypotheses, capitalization perceptions were positively associated with marital satisfaction (e.g., Gable et al., 2004) and negatively associated with depression symptoms and chronic stress. Marital satisfaction was negatively associated with depression symptoms and chronic stress, and depression symptoms were positively associated with chronic stress.

Trajectories of Change in Main Variables Over Time

Prior to examining contemporaneous and time-lagged associations between the variables of interest, I examined separate unconditional models predicting capitalization perceptions, marital satisfaction, depressive symptoms, and chronic stress. Analyses indicated sufficient between and within person variability in the slopes for all four models. I then examined whether there was linear change in the variables of interest using the following equations:

$$\text{Level 1} \quad Y_{ij} (\text{Outcome}_T) = \beta_{01} (\text{Husband}) + \beta_{02} (\text{Wife}) + \beta_{11} (\text{Husband Time}_T) + \beta_{12} (\text{Wife Time}_T) + r_{ij}$$

$$\text{Level 2} \quad \beta_{01} (\text{Husband Intercept}) = \gamma_{010} + \mu_{01j}$$

$$\beta_{02} (\text{Wife Intercept}) = \gamma_{020} + \mu_{02j}$$

$$\beta_{11} (\text{Husband Time Slope}) = \gamma_{110} + \mu_{11j}$$

$$\beta_{12} (\text{Wife Time Slope}) = \gamma_{122} + \mu_{12j}$$

where Y_{ij} is the outcome of interest (e.g., marital satisfaction) for each spouse j at Time i ; β_{01} and β_{02} represent the mean of the outcome across all time points for husbands and wives respectively; β_{11} and β_{12} are the rates of linear change over time in the outcome for husband and wife respectively; and r_{ij} is the residual variance in repeated measurements for spouse j , which is assumed to be independent and normally distributed. Neuroticism was included as a control variable in all equations as a Level 2 moderator of husband and wife intercepts (i.e., β_{01} and β_{02} , respectively).

Capitalization perceptions (Husband $\beta = -.085$; Wife $\beta = -.139$; $ps < .001$), marital satisfaction (Husband $\beta = -.995$; Wife $\beta = -.870$; $ps < .001$), and husbands' depression symptoms (Husband $\beta = -.325$; $p = .025$) declined linearly over two years. Husband and wives' chronic stress and wives' depression symptoms did not systematically change over time; thus, time variables predicting these outcomes were dropped from subsequent analyses.

Contemporaneous and Time-Lagged Associations Between Capitalization Perceptions and Marital Satisfaction or Depression Symptoms

Next, I examined whether capitalization perceptions predicted within-spouse contemporaneous marital satisfaction or depression symptoms at Level 1 in two separate analyses. Given the robust association between marital satisfaction and depression symptoms (see Whisman & Kaiser, 2008 for review), I controlled depression symptoms when predicting marital satisfaction and I controlled marital satisfaction when predicting depression symptoms. The following equation illustrates the test of the hypothesis predicting marital satisfaction:

$$\text{Level 1} \quad Y_{ij} (\text{Marital Satisfaction}_T) = \beta_{01} (\text{Husband}) + \beta_{02} (\text{Wife}) + \beta_{11} (\text{Husband Time}_T) + \beta_{12} (\text{Wife Time}_T) + \beta_{21} (\text{Husband Depression}_T) + \beta_{22} (\text{Wife Depression}_T) + \beta_{31} (\text{Husband Capitalization Perceptions}_T) + \beta_{32} (\text{Wife Capitalization Perceptions}_T) + r_{ij}$$

As shown in Table 3, and consistent with hypotheses, capitalization perceptions were positively associated with contemporaneous marital satisfaction over two years for husbands and wives. Contrary to hypotheses, as shown in Table 4, capitalization perceptions were not associated with contemporaneous decreases in depression symptoms over two years for husbands or wives.

Next, I examined whether capitalization perceptions at Time_T predicted changes in subsequent marital satisfaction or depression symptoms at Time_{T+1} using within-spouse time-lagged multi-level analyses. The following is an example of the equations used to test the hypotheses showing marital satisfaction as the outcome:

$$\text{Level 1} \quad Y_{ij} (\text{Marital Satisfaction}_{T+1}) = \beta_{01} (\text{Husband}) + \beta_{02} (\text{Wife}) + \beta_{11} (\text{Husband Time}_{T+1}) + \beta_{12} (\text{Wife Time}_{T+1}) + \beta_{21} (\text{Husband Satisfaction}_T) + \beta_{22} (\text{Wife Satisfaction}_T) + \beta_{31} (\text{Husband Depression}_T) + \beta_{32} (\text{Wife Depression}_T) + \beta_{41} (\text{Husband Capitalization Perceptions}_T) + \beta_{42} (\text{Wife Capitalization Perceptions}_T) + r_{ij}$$

To achieve model convergence, coefficients for intercepts and auto-correlated variables (i.e., marital satisfaction) at Level 1 were fixed. As shown in Table 5, capitalization perceptions at Time_(T) was positively associated with marital satisfaction at Time_(T+1) for husbands and wives. In other words, when controlling for changes in depression and baseline marital satisfaction, as capitalization perceptions became more positive, marital satisfaction became more positive over time. As shown in Table 6, positive capitalization perceptions at Time_(T) predicted subsequent decreases in depression symptoms at Time_(T+1), but only for wives. To examine whether the association between capitalization perceptions and subsequent depression symptoms was significantly different for husbands and wives, I compared two models, one in which

husband and wife slopes were constrained to be equal and one in which husband and wife slopes were not constrained to be equal. Results indicated a marginal difference between husbands and wives such that the association between capitalization perceptions and subsequent depression symptoms was marginally stronger for wives than for husbands ($\chi^2 = 3.51; p = .06$).

Chronic Stress as a Moderator of the Contemporaneous and Time-Lagged Associations Between Capitalization Perceptions and Marital Satisfaction or Depression Symptoms

Finally, I examined whether, at Level 1, chronic stress moderated the association between capitalization perceptions and marital satisfaction, or between capitalization perceptions and depression symptoms. I computed an interaction term for each time point by multiplying standardized scores of capitalization perceptions and chronic stress (i.e., Capitalization Perceptions_T X Chronic Stress_T). The interaction term and relevant main effects were then included as time-varying covariates in contemporaneous and time-lagged Level 1 equations; the following is an example of the equation for the contemporaneous analysis predicting marital satisfaction:

$$\begin{aligned} \text{Level 1} \quad Y_{ij} (\text{Marital Satisfaction}_T) = & \beta_{01} (\text{Husband}) + \beta_{02} (\text{Wife}) + \beta_{11} (\text{Husband} \\ & \text{Time}_T) + \beta_{12} (\text{Wife Time}_T) + \beta_{21} (\text{Husband Depression}_T) + \beta_{22} (\text{Wife} \\ & \text{Depression}_T) + \beta_{31} (\text{Husband Capitalization Perceptions}_T) + \beta_{32} (\text{Wife} \\ & \text{Capitalization Perceptions}_T) + \beta_{41} (\text{Husband Chronic Stress}_T) + \beta_{42} (\text{Wife} \\ & \text{Chronic Stress}_T) + \beta_{51} (\text{Husband Perceptions X Stress}_T) + \beta_{52} (\text{Wife} \\ & \text{Perceptions X Stress}_T) + r_{ij} \end{aligned}$$

The contemporaneous and time-lagged analyses yielded information about whether chronic stress moderated the association between capitalization perceptions and concurrent or subsequent marital satisfaction or depression symptoms. To achieve convergence, coefficients for intercepts and control variables (i.e., marital satisfaction or depression symptoms) were fixed in all models and coefficients for chronic stress were fixed in time-lagged models predicting marital satisfaction. Further, given that

depression symptoms and marital satisfaction were not significantly associated with each other in previous lagged analyses, depression variables were dropped from the following lagged analyses of marital satisfaction and marital satisfaction variables were dropped from the following lagged analyses of depression symptoms.

As shown in Table 7, chronic stress moderated the contemporaneous association between capitalization perceptions and marital satisfaction, but only for wives. Following the procedures outlined by Bauer and Curran (2005), I conducted simple slopes analyses using computer software developed by Sibley (2008) and graphed the slopes at high and low levels of the moderator (i.e., chronic stress) in Figure 1. Results indicated that, compared to wives with less chronic stress ($t = 3.78; p < .001$), wives who reported greater chronic stress experienced a stronger positive association between capitalization perceptions and contemporaneous marital satisfaction ($t = 4.70; p < .001$). However, when I compared a model in which husband and wife paths were constrained to be equal to a model in which husband and wife paths were not constrained to be equal, the difference between husband and wife paths was not significant ($\chi^2 = 1.19; p = .27$). As shown in Table 8, chronic stress did not moderate the time-lagged association between capitalization perceptions and marital satisfaction.

As shown in Table 9, chronic stress moderated the contemporaneous associations between capitalization perceptions and depression symptoms, but only for wives. Specifically, capitalization perceptions predicted decreases in wives' contemporaneous depression symptoms, but as chronic stress increased, the association between capitalization perceptions and depression symptoms became more negative. I tested the significance of the simple slopes as previously described, and, as shown in Figure 2, the simple slopes were non-significant at low and high levels of chronic stress ($t = 1.30; p = .19; t = -1.09; p = .28$, respectively). Further, deviance analyses indicated that the associations between capitalization perceptions and depression symptoms were not significantly different for husbands and wives ($\chi^2 = .83; p = .36$). As shown in Table 10, chronic stress did not moderate the time-lagged associations between capitalization perceptions and depression symptoms for husbands or wives.

Discussion

Disclosing successes and good fortune to others (i.e., capitalization) and receiving interested and enthusiastic responses is associated with positive affect and relationship satisfaction (Gable et al., 2004; Logan & Cobb, 2012). However, whether these benefits persist over time or prevent impairing mental health symptoms (e.g., depression), and whether certain contextual factors increase the importance of the capitalization processes for intra- and interpersonal outcomes remains unclear. Thus, to clarify whether the intra- and interpersonal benefits of capitalization endure over time, I investigated contemporaneous and time-lagged associations between capitalization perceptions and marital satisfaction, and capitalization perceptions and depression symptoms in newlywed couples over two years. I also examined chronic stress as a potential moderator of the associations between the variables of interest.

Consistent with previous research, capitalization perceptions and marital satisfaction declined over two years. Chronic stress and wives' depression symptoms did not systematically change over time, but husband's depression symptoms decreased over the course of the study. As expected, capitalization perceptions and marital satisfaction covaried over time and capitalization perceptions predicted greater subsequent marital satisfaction. Engaging in capitalization may be an important path by which spouses can disclose personal events and experiences and open the door to greater intimacy and connection with their partner. When spouses perceive partners as attentive and enthusiastic about their disclosures of success and good fortune, it may signal that partners are available, interested, and committed to maintaining the relationship. Seeing partners as invested and responsive may encourage feelings of intimacy, trust, and positive emotions (e.g., Laurenceau et al., 2004) and thereby protect relationships over time by allowing spouses to derive greater satisfaction in their relationships.

Contrary to prediction, capitalization perceptions and depression symptoms did not covary contemporaneously, but wives' capitalization perceptions predicted subsequent decreases in their depression symptoms. One reason for the lack of contemporaneous finding may be due to how depressive symptoms emerge over time.

Specifically, symptoms of depression include a collection of affective, cognitive, and behavioural indicators that do not appear suddenly or simultaneously, but rather develop over time (Coyne & Benazon, 2001). Thus, the intrapersonal consequences of less than positive capitalization perceptions for many symptoms of depression (e.g., loss of interest and pleasure, changes in appetite, pervasive feelings of fatigue) may be more distal, which is why associations only emerge in the time-lagged analyses. Evidence that husbands are interested and invested in the relationship may make wives feel valued, appreciated, and connected to their partner, thereby contributing to feelings of self-worth and well-being (Proulx, Helms, & Buehler, 2007) and protecting wives from increases in depression symptoms (e.g., Whitton et al., 2007). Of course, if husbands' responses are less satisfying and lead wives to doubt their own self-worth or their husbands' love and acceptance, these negative cognitions and feelings may ultimately lead to more serious symptoms characteristic of depression.

The final aim in the current study was to understand whether context, in the form of chronic stress, affected the salience of capitalization perceptions for individual and relationship well-being. Of the eight analyses conducted to examine this question (contemporaneously and time-lagged), two significant findings emerged. Specifically, wives', but not husbands', chronic stress moderated the contemporaneous association between capitalization perceptions and marital satisfaction, and the contemporaneous association between capitalization perceptions and depression symptoms. As expected, the association between capitalization perceptions and marital satisfaction was more positive and the association between capitalization perceptions and depression symptoms was more negative in the context of greater compared to lesser chronic stress. In other words, chronic stress appears to magnify the effects of partner responses on intra- and interpersonal well-being. When wives are faced with ongoing stressors, having a partner who is supportive, interested, and enthusiastic about their achievements and good news becomes more important for their concurrent evaluations of relationship quality and individual mood than when they are not faced with ongoing stressors. Chronic stress did not moderate the time-lagged association between capitalization perceptions and marital satisfaction for husbands or wives.

Strengths, Limitations, and Future Directions

This study has several strengths: First, compared to previous capitalization research that almost exclusively focused on individuals in dating relationships, this study includes a relatively large sample of newlywed couples who were at similar relationship stages (i.e., childless couples beginning first marriages). Examining capitalization processes in more established relationships expands our understanding of how positive relationship processes may contribute to personal and relationship well-being across relationship stages. Second, I collected multiple waves of data over two years and employed multi-level modelling to take advantage of the nested structure of the data. Not only does this extend the follow-up period of previous research, multiple assessments permitted time-lagged analyses, which allowed for examination of hypotheses such as whether capitalization perceptions at earlier time points predicted subsequent changes in marital satisfaction or depressive symptoms.

Despite these advantages, there are some caveats. First, participants were not randomly selected from the local population of engaged couples, which may have resulted in selection biases. Although the sample was more diverse than in other marital research, non-Caucasian, lower income, and less educated participants were underrepresented (Statistics Canada, 2007) and eligibility restrictions on the sample (i.e., no children, beginning first marriages, fluent in English) may have rendered the results less generalizable to a broader population of couples. Second, although data were collected from both members of the dyad, the data were based on self-report and partners' perceptions of their own capitalization responses were not assessed. Thus, future research employing observational methods or examining spouses' perceptions of their own capitalization responses may provide a greater understanding of how capitalization processes unfold in couples' relationships. Third, previous research suggests that the benefits of positive capitalization experiences wane as dating relationships become more established (Logan & Cobb, 2012). Thus, the importance of capitalization experiences for married couples may continue to decline and fewer significant associations may emerge with a longer follow-up period. However, it is also possible that the capitalization process increases in value at particular points in the relationship, for example during the transition to marriage or to parenthood, in which

case this study of newlyweds adjusting to life as a married couple may have been an ideal time to examine how capitalization contributes to individual and relationship well-being. Finally, examining cross-partner associations may provide valuable information into the importance of capitalization processes for individual and relationship well-being. Although these analyses could be conducted with the current data, it was beyond the scope of this paper and future research should examine these questions.

Implications and Conclusions

In addition to addressing several gaps in the literature, this research contributes to an understanding of how individuals and couples can flourish. Compared to spouses who see their partners as being disinterested or critical of their good news, spouses who feel that their partners are willing and able to celebrate in their successes describe relationships that are more satisfying in the moment, and that are more satisfying over time. Furthermore, the importance of celebrating good news for immediate evaluations of relationships appears to increase when wives are grappling with multiple ongoing stressors. Although the benefits of positive capitalization experiences may not extend beyond immediate boosts in affect for husbands (e.g., Gable et al., 2004), results suggest that there may be longer-term intrapersonal benefits for wives.

Chronic stress appears to increase the value of positive capitalization experiences for concurrent inter- and intrapersonal well-being, at least for wives. Thus, developing psychoeducational strategies about the benefits of celebrating each other's successes and good fortune and fostering spouses' ability and motivation to celebrate each other's good news may be an effective way to enhance marital and personal well-being. Focusing on fostering positive capitalization processes in couples may also be a relatively low-cost strategy compared to focusing on improving interaction in other marital domains. It may be less challenging for spouses to respond with support and enthusiasm to partners' good news than to respond sensitively during support or conflict discussions. Therefore, enhancing couples' capitalization experiences may allow stressed couples to experience immediate boosts in feelings of understanding and validation, thereby lessening feelings of anger or disappointment and increasing their motivation to make changes in more challenging areas of their relationship.

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Footnotes

¹Given the associations between T1 relationship length and capitalization perceptions, I re-ran all analyses with T1 relationship length entered as a Level 2 moderator of the intercepts. T1 relationship length did not change the associations among variables of interest. Therefore, I have reported analyses without T1 relationship length as a control variable.

Tables and Figures

Table 1

Means and Standard Deviations of Capitalization Perceptions, Marital Satisfaction, Depression Symptoms, and Chronic Stress at Each Time Point

	<u>Husbands</u>					<u>Wives</u>				
	Time					Time				
	1	2	3	4	5	1	2	3	4	5
Capitalization Perceptions										
<i>M</i>	5.91	5.89	5.80	5.81	5.73	6.00	5.89	5.85	5.78	5.67
<i>SD</i>	0.84	0.82	0.92	0.82	0.84	0.79	0.88	0.84	0.87	0.89
Marital Satisfaction										
<i>M</i>	41.14	41.68	40.95	39.73	39.70	41.69	41.77	41.51	40.54	40.09
<i>SD</i>	5.08	4.38	4.93	6.58	5.98	4.13	4.48	5.04	6.50	6.50
Depression Symptoms										
<i>M</i>	4.53	3.60	3.46	3.98	3.30	5.70	4.86	5.37	5.76	5.03
<i>SD</i>	4.67	4.33	4.06	4.67	4.12	6.24	5.57	6.39	6.10	5.15
Chronic Stress										
<i>M</i>	3.12	3.16	3.27	3.14	3.15	3.35	3.33	3.35	3.31	3.27
<i>SD</i>	0.79	0.74	0.80	0.80	0.85	0.75	0.81	0.86	0.84	0.80

Note. T1 *N* = 193.

Table 2

Average Correlations Among Capitalization Perceptions, Marital Satisfaction, Depression Symptoms, and Chronic Stress Across All Time Points

	Capitalization Perceptions	Marital Satisfaction	Depression Symptoms	Chronic Stress
Capitalization Perceptions	-	.42	-.13	-.25
Marital Satisfaction	.34	-	-.34	-.40
Depression Symptoms	-.28	-.40	-	.49
Chronic Stress	-.28	-.36	.47	-

Note. Average correlations among husbands appear above the diagonal and average correlations among wives appear below the diagonal.

Table 3

Predicting Contemporaneous Marital Satisfaction_(T) from Capitalization Perceptions_(T)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	SE	t-ratio	Coefficient	SE	t-ratio
Intercept ⁺						
Low Neuroticism	41.726	0.278	150.127***	41.705	0.266	156.806***
High Neuroticism	-0.027	0.041	-0.649	-0.032	0.038	-0.829
Time _(T) [‡]	-0.866	0.155	-5.574***	-0.500	0.158	-3.173***
Depression Symptoms _(T) [‡]	-1.592	0.261	-6.098***	-1.786	0.240	-7.438***
Capitalization Perceptions _(T) [‡]	1.630	0.193	8.453***	1.132	0.197	5.736***

Note. ⁺df = 191; [‡]df = 192.

***p < .001.

Table 4

Predicting Contemporaneous Depression Symptoms_(T) from Capitalization Perceptions_(T)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	<i>SE</i>	<i>t</i> -ratio	Coefficient	<i>SE</i>	<i>t</i> -ratio
Intercept ⁺						
Low Neuroticism	4.401	0.229	19.259***	5.527	0.271	20.385***
High Neuroticism	0.415	0.048	8.715***	0.355	0.045	7.974***
Time _(T) [‡]	-0.507	0.138	-3.675***	-	-	-
Marital Satisfaction _(T) [‡]	-1.008	0.182	-5.547***	-2.281	0.344	-6.639***
Capitalization Perceptions _(T) [‡]	0.158	0.162	0.974	-0.163	0.183	-0.895

Note. ⁺*df* = 191; [‡]*df* = 192.

****p* < .001.

Table 5

Predicting Time-Lagged Marital Satisfaction_(T+1) from Capitalization Perceptions_(T)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	SE	t-ratio	Coefficient	SE	t-ratio
Intercept [‡]						
Low Neuroticism	41.677	0.334	124.741***	42.051	0.355	118.574***
High Neuroticism	-0.101	0.045	-2.216*	-0.058	0.041	-1.406
Time _(T+1) ⁺	-0.776	0.230	-3.373**	-0.802	0.254	-3.160**
Marital Satisfaction _(T) [‡]	1.882	0.408	4.615***	1.869	0.392	4.764***
Depression Symptoms _(T) ⁺	-0.211	0.236	-0.893	0.096	0.250	0.384
Capitalization Perceptions _(T) ⁺	0.687	0.204	3.367**	0.543	0.205	2.652**

Note. ⁺df = 192; [‡]df = 1301.

*p < .05. **p < .01. ***p < .001.

Table 6

Predicting Time-Lagged Depression Symptoms_(T+1) from Capitalization Perceptions_(T)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	<i>SE</i>	<i>t</i> -ratio	Coefficient	<i>SE</i>	<i>t</i> -ratio
Intercept [‡]						
Low Neuroticism	3.384	0.245	13.803***	5.350	0.250	21.412***
High Neuroticism	0.185	0.038	4.825***	0.246	0.050	4.947***
Time _(T+1) ⁺	0.031	0.142	0.220	-	-	-
Depression Symptoms _(T) ⁺	1.809	0.222	8.143***	1.760	0.312	5.639***
Marital Satisfaction _(T) ⁺	-0.150	0.146	-1.023	-0.251	0.355	-0.707
Capitalization Perceptions _(T) ⁺	-0.042	0.136	-0.309	-0.491	0.250	-1.959*

Note. ⁺*df* = 192; [‡]*df* = 1281.

p* < .05. *p* < .01. ****p* < .001.

Table 7

Chronic Stress_(T) as a Moderator of the Contemporaneous Association between Capitalization Perceptions_(T) and Marital Satisfaction_(T)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	SE	t-ratio	Coefficient	SE	t-ratio
Intercept [‡]						
Low Neuroticism	41.707	0.267	156.417***	41.917	0.253	165.740***
High Neuroticism	-0.001	0.049	-0.011	-0.016	0.045	-0.356
Time _(T) ⁺	-0.772	0.178	-4.341***	-0.554	0.164	-3.382**
Depression Symptoms _(T) [‡]	-1.022	0.264	-3.871***	-1.197	0.225	-5.331***
Chronic Stress _(T) ⁺	-0.793	0.240	-3.305**	-0.933	0.181	-5.162***
Capitalization Perceptions _(T) ⁺	1.570	0.208	7.553***	1.090	0.227	4.794***
Capitalization Perceptions _(T) X Chronic Stress _(T) ⁺	0.306	0.193	1.583	0.333	0.154	2.169*

Note. ⁺df = 192; [‡]df = 1677.

*p < .05. **p < .01. ***p < .001.

Table 8

Chronic Stress_(T) as a Moderator of the Time-Lagged Association between Capitalization Perceptions_(T) and Marital Satisfaction_(T+1)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	SE	t-ratio	Coefficient	SE	t-ratio
Intercept [‡]						
Low Neuroticism	42.031	0.410	102.471***	42.642	0.577	73.958***
High Neuroticism	-0.079	0.043	-1.838	-0.030	0.040	-0.771
Time _(T+1) ⁺	-0.793	0.220	-3.612**	-0.913	0.262	-3.485**
Marital Satisfaction _(T) [‡]	2.007	0.380	5.286***	1.383	0.369	3.752***
Chronic Stress _(T) [‡]	-0.520	0.219	-2.371*	-0.608	0.180	-3.380**
Capitalization Perceptions _(T) ⁺	0.687	0.214	3.202**	0.555	0.205	2.702**
Capitalization Perceptions _(T) X Chronic Stress _(T) ⁺	-0.172	0.241	-0.713	0.264	0.209	1.264

Note. ⁺df = 192; [‡]df = 1287.

*p < .05. **p < .01. ***p < .001.

Table 9

Chronic Stress_(T) as a Moderator of the Contemporaneous Association between Capitalization Perceptions_(T) and Depression Symptoms_(T)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	SE	t-ratio	Coefficient	SE	t-ratio
Intercept [‡]						
Low Neuroticism	4.239	0.207	20.498***	5.159	0.278	18.551***
High Neuroticism	0.364	0.041	8.901***	0.332	0.059	5.629***
Time _(T) ⁺	-0.441	0.125	-3.517**	-	-	-
Marital Satisfaction _(T) ⁺	-0.640	0.168	-3.800***	-1.458	0.336	-4.338***
Chronic Stress _(T) ⁺	1.071	0.168	6.387***	1.567	0.234	6.682***
Capitalization Perceptions _(T) ⁺	0.232	0.165	1.408	0.002	0.202	0.011
Capitalization Perceptions _(T) X Chronic Stress _(T) ⁺	0.167	0.148	1.131	-0.431	0.181	-2.377*

Note. ⁺df = 192; [‡]df = 1678.

*p < .05. **p < .01. ***p < .001.

Table 10

Chronic Stress_(T) as a Moderator of the Time-Lagged Association between Capitalization Perceptions_(T) and Depression Symptoms_(T+1)

	<u>Husbands</u>			<u>Wives</u>		
	Coefficient	SE	t-ratio	Coefficient	SE	t-ratio
Intercept [‡]						
Low Neuroticism	2.116	0.328	6.444***	2.596	0.490	5.098***
High Neuroticism	0.203	0.040	5.098***	0.259	0.051	5.085***
Time _(T+1) ⁺	0.148	0.150	0.989	-	-	-
Depression Symptoms _(T) [‡]	1.723	0.257	6.715***	1.514	0.350	4.323***
Chronic Stress _(T) ⁺	0.157	0.190	0.827	0.578	0.242	2.391*
Capitalization Perceptions _(T) ⁺	-0.020	0.140	-0.145	-0.358	0.181	-1.554
Capitalization Perceptions _(T) X Chronic Stress _(T) ⁺	0.352	0.181	1.942 [†]	-0.036	0.253	-0.141

Note. ⁺df = 192; [‡]df = 1268.

[†]p < .10; *p < .05. **p < .01. ***p < .001.

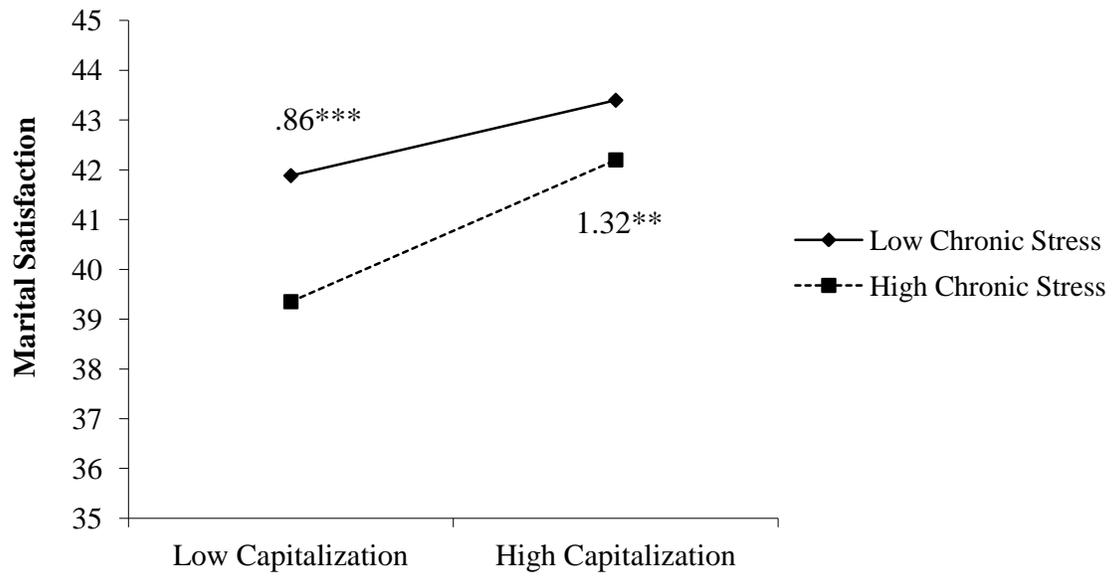


Figure 1. Wives' chronic stress as a Level 1 moderator of the association between capitalization perceptions and contemporaneous marital satisfaction
 * $p < .05$. ** $p < .01$. *** $p < .001$.

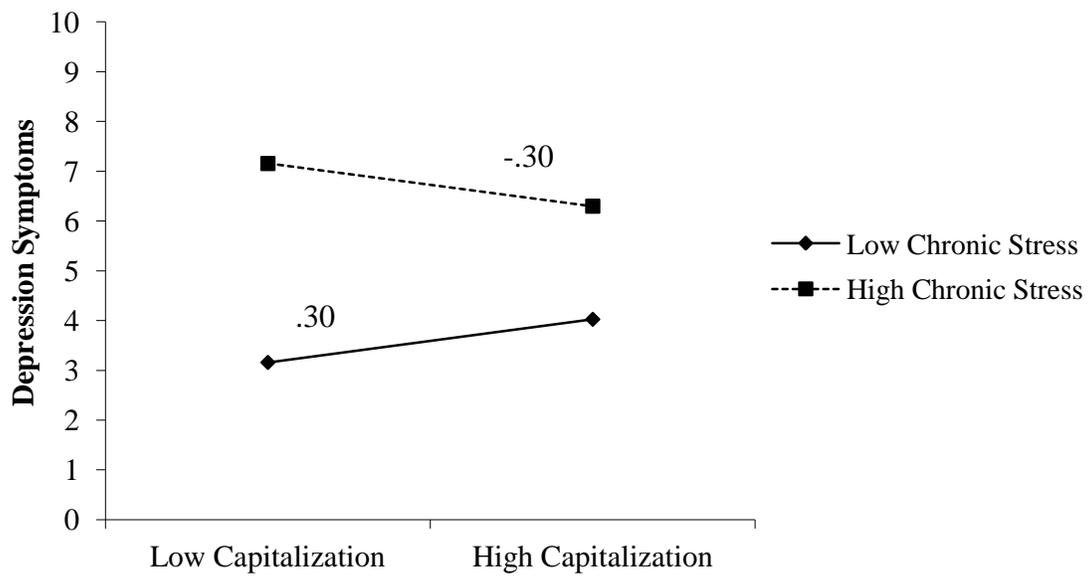


Figure 2. Wives' chronic stress as a Level 1 moderator of the association between capitalization perceptions and contemporaneous depression symptoms
 * $p < .05$. ** $p < .01$. *** $p < .001$.