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Los Angeles

We're in this Together: An Experimental Test of Communal Appraisal and Coping

Intentions

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Psychology

by

Emma Bright

2019

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ABSTRACT OF THE DISSERTATION

We're in this Together: An Experimental Test of Communal Appraisal and Coping
Intentions

by

Emma Bright

Doctor of Philosophy in Psychology

University of California, Los Angeles 2019

Professor Annette Louise Stanton, Chair

Background: The extensive literature on stress and coping primarily focuses on intra-individual processes. The vital role of close relationships in influencing psychosocial, physiological, and behavioral adaptation to stressors warrants greater attention. The construct of communal coping involves two processes: an appraisal of the stressor as shared (i.e., “our problem” as opposed to “my/your problem”) and cooperative efforts to manage the stressor (Lyons, Mickelson, Sullivan, & Coyne, 1998). Research suggests that communal coping is associated with greater relationship satisfaction, more positive relationship processes, and lower engagement in unhealthy behaviors. However, the current body of literature is entirely correlational and has yet to eliminate third variable or reverse causality explanations. Intended to provide a more definitive test of the effects of communal coping, the present controlled experiment was designed to test the effects of

induced communal appraisal and coping intentions on relevant psychosocial, physiological, and behavioral outcomes.

Method: Adults currently in an intimate relationship (N = 133) were randomized to write about a conflict in their relationship from a communal perspective as the couple's problem, a non-communal perspective as the participant's problem, or a non-communal perspective as the partner's problem over two in-person laboratory sessions. Participants completed psychosocial, relational, and behavioral measures within each writing session and one week prior to and following the writing sessions. The present study examined differences between experimental conditions in primary outcomes (negative affect, relationship satisfaction, physical symptoms, alcohol use, heart rate) and secondary outcomes (perceived stress, sleep, interpersonal approach behaviors) over time, as well as moderators (dispositional communion, attitudes toward emotional expression).

Results: Experimental condition produced a statistically significant effect on change in state partner-directed negative affect from Session 1 pre-induction to Session 2 post-induction, with greater decreases in state partner-directed negative affect for participants in the Communal Coping condition than participants in the Non-Communal Partner condition. Participants in the Communal Coping condition had increases in physical symptoms, whereas participants in the Non-Communal Partner condition had decreases in self-reported physical symptoms. Experimental condition had no significant effect on relationship satisfaction, heart rate reactivity or recovery, interpersonal approach behaviors, and sleep. Dispositional communion significantly moderated the effect of experimental condition on within-session state individual negative affect and perceived stress, as well as perceived stress at one-week follow-up, such that participants with greater dispositional communion assigned to the Communal Coping condition experienced

greater improvement on those variables than did participants in the Non-Communal conditions. Attitudes toward emotional expression significantly moderated the relationship between experimental condition and change in alcohol use from baseline to follow-up, participants in the Non-Communal Partner condition with more positive attitudes toward emotional expression had greater increases in alcohol use from baseline to follow-up than participants in the Communal Coping condition.

Conclusions: Taken collectively, the findings suggest that experimentally-induced communal appraisal and coping intentions may benefit individuals during relationship conflicts, particularly by buffering against negative partner-directed affect, individual negative affect, and perceived stress. However, induced communal coping produced an increase in physical symptoms, and further research is needed to examine the potential costs of coping communally.

The dissertation of Emma Bright is approved.

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2019

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Introduction

Stressors are an individual or group's internal or external demands that require resources to manage (Cohen, Evans, Stokols, & Krantz, 1986; Lazarus & Folkman, 1984). Stress is considered to be a dynamic, transactional phenomenon whereby the response is determined by the individual's appraisals of the stressor (Lazarus & Folkman, 1984). People appraise situations as stressful when they exceed their personal and social resources (Lazarus & Folkman, 1984). The individual's response to the stressor includes attempts to cope, which are intended to address perceived demands. Coping is dynamic, unfolds over time, and varies between individuals and across situations. The way in which individuals cope with stressors have consequences for their health and well-being (Taylor & Stanton, 2007).

The extensive literature on stress and coping has focused primarily on the individual (Carver & Scheier, 1999; Coelho, Hamburg, & Adams, 1974; Lazarus & Folkman, 1984) and rarely on the social context in which coping commonly occurs. In researchers' attempts to assess social contextual factors, support-seeking behavior has been included in many self-reported coping inventories (Skinner, Edge, Altman, & Sherwood, 2003). Social support is linked to multiple health-relevant outcomes such as better cardiovascular, neuroendocrine, and immune functioning (Uchino, 2006). However, assessments of support-seeking behavior on coping measures do not distinguish between support seeking and receipt, and they do not evaluate support effectiveness. In addition, measures of coping through social support commonly do not reflect theoretical models of coping. Although theories of coping acknowledge its dynamic nature, measures of coping frequently include social support-seeking as a coping strategy in addition to other individual-level coping strategies as opposed to assessing coping that occurs in

a social context. The present study extends beyond the investigation of social support-seeking as a coping strategy and incorporates the social context into coping appraisal and intentions.

An individualistic approach to studying stress and coping does not acknowledge the importance of the social context in which stressful events occur. For example, a married woman's diagnosis of breast cancer often affects her *and* her loved ones. In this social context, coping is influenced by the presence of others and can occur as a combination of individual and group efforts (Bodenmann, 1997; Lepore & Evans, 1996; Lyons et al., 1998; Revenson, 1997; Revenson & DeLongis, 2011). The examination of social contextual factors allows for a greater understanding of coping processes and the effectiveness of those coping efforts.

Close relationships play a vital role in influencing psychological, physiological, and behavioral adaptation to stressors (Kiecolt-Glaser & Newton, 2001; Robles & Kiecolt-Glaser, 2003; Robles, Slatcher, Trombello, & McGinn, 2014). Moreover, strong social relationships serve as a protective factor for early mortality (Holt-Lunstad, Smith, & Layton, 2010; House, Landis, & Umberson, 1988), and the coping that occurs within the relational context may in part explain this association. Accordingly, this study sought to incorporate the social context of coping by examining the effects of communal appraisal and communal coping intentions, experimentally induced via a writing protocol, on psychosocial, relational, physical and behavioral adjustment to stress, as compared to two non-communal appraisal writing conditions.

Interpersonal Coping Strategies

Relationship-focused coping refers to cognitive, emotional, or behavioral efforts to maintain social relationships in the context of stress (Coyne & Smith, 1991; DeLongis & O'Brien, 1990). This conceptualization of coping is based upon the assumption that maintaining social connections is a fundamental human need, which persists in the presence of stressful

events. Most frequently, the research on relationship-focused coping has examined people coping with chronic illnesses, such as cardiovascular disease or cancer. A type of relationship-focused coping, active engagement, involves discussing the stressor, inquiring about how a partner is feeling, and attempting to solve problems collaboratively (Coyne & Smith, 1991). Active engagement is associated with higher patient self-efficacy and lower distress among heterosexual couples in which the husband has experienced myocardial infarction (Coyne & Smith, 1994). Among couples in which one partner is diagnosed with cancer, partner active engagement is related to lower distress and greater marital satisfaction among patients (Hagedoorn, Kuijer, et al., 2000; Kuijer et al., 2000) and greater marital satisfaction among partners (Kuijer et al., 2000). Active engagement on the part of the partner may arise from a shared appraisal of the stressor.

Another form of relationship-focused coping, protective buffering, is not as clearly adaptive as active engagement. Protective buffering involves hiding worries from and denying concerns to one's partner with the intention of avoiding conflict and maintaining the relationship in the presence of a stressor (Coyne & Smith, 1991). In studies of couples in which one partner is recovering from myocardial infarction, patient engagement in protective buffering is associated with lower patient self-efficacy (Coyne & Smith, 1991), higher patient distress (Suls, Green, Rose, Lounsbury, & Gordon, 1997), and greater partner distress (Coyne & Smith, 1991). Partner protective buffering is related to greater partner distress (Suls et al., 1997) and paradoxically greater patient self-efficacy (Coyne & Smith, 1991). Among couples in which one partner has cancer, patients' and partners' protective buffering is associated with greater distress (Langer, Brown, & Syrjala, 2009; Manne, Dougherty, Veach, & Kless, 1999) and lower relationship

satisfaction for the individual engaging in protective buffering (Hagedoorn, Kuijer, et al., 2000; Langer et al., 2009; Langer, Rudd, & Syrjala, 2007).

A strength of the relationship-focused coping construct is that it accounts for the social context in which coping occurs. It is limited to individual coping efforts within a relationship, however. In addition, with the exception of two studies (Manne et al., 1999; Suls et al., 1997), all studies examining the effects of relationship-focused coping strategies are either cross-sectional (Coyne & Smith, 1991; Coyne & Smith, 1994; Hagedoorn, Buunk, Kuijer, Wobbes, & Sanderman, 2000; Kuijer et al., 2000), or only include significant cross-sectional findings, despite collecting longitudinal data (Langer et al., 2007).

Other interpersonal coping strategies such as dyadic coping and communal coping extend beyond relationship-focused coping (i.e., individual coping efforts within a relationship) by involving coordination between members of a couple or group. Moreover, unlike relationship-focused coping, a central motivation for the use of dyadic coping and communal coping is not maintenance of the relationship but rather it arises out of the interdependence between partners, common concerns, and shared goals (Bodenmann, 2005). Although individuals engaging in dyadic and communal coping may be motivated to do so to maintain their relationship, it is not an essential motivation behind their use.

Dyadic coping is a dynamic, transactional, interpersonal coping strategy with its origins in Lazarus's stress and coping paradigm (Bodenmann, 2005). According to Bodenmann (2005), the coping process begins with "a stress communication process," the verbal or non-verbal process of sharing concerns between partners (Bodenmann, 2005, p. 34). Following stress communication, a partner may respond with dyadic coping strategies, more communication (potentially resulting in stress contagion), or may fail to notice his/her partner's stress

communication (because of lack of motivation or incompetence; Bodenmann, 2005). Dyadic coping strategies can be negative or positive (Bodenmann, 1997). Negative dyadic coping includes “hostile dyadic coping,” which involves support accompanied by disparagement or minimization of the problem, “ambivalent dyadic coping,” which consists of reluctant supportive efforts, and “superficial dyadic coping” which includes insincere attempts at support (Bodenmann, 2005, p. 39). Positive dyadic coping includes “common dyadic coping” (i.e., coping efforts engaged by the dyad during a stressor appraised as shared). Positive common dyadic coping involves joint efforts of partners at managing the stressor and concomitant negative emotions, relaxing together, and expressing affection (Bodenmann, 2005; Randall, Hilpert, Jimenez-Arista, Walsh, & Bodenmann, 2016). Other positive dyadic coping processes include: “supportive coping” (i.e., efforts from one partner to another to provide support which is not explicitly solicited) and “delegated coping” (i.e., coping efforts by one partner that are explicitly solicited by the other partner to alleviate the stress; Bodenmann, 2005, p. 39) .

A meta-analysis of dyadic coping and relationship satisfaction revealed that positive dyadic coping is associated with greater relationship satisfaction, and in particular effect sizes for common dyadic coping are the largest (common dyadic coping, $r = .53$; supportive coping $r = .47$; delegated coping, $r = .31$; Falconier, Jackson, Hilpert, & Bodenmann, 2015). The same pattern of results emerges for patients with cancer and their partners. A systematic review of studies examining dyadic coping among couples in which one partner has cancer reveals that positive dyadic coping is associated with higher relationship quality (Traa, De Vries, Bodenmann, & Den Oudsten, 2015). A longitudinal study of patients diagnosed with cancer and their partners revealed that common dyadic coping is associated with lower depressive symptoms for both patients and partners (Rottmann et al., 2015), and cross-sectional research shows that

common dyadic coping is associated with more positive body image among women diagnosed with breast cancer (Zimmermann, Scott, & Heinrichs, 2010) and lower anxiety among patients with prostate cancer (Regan et al., 2014). A study of healthy community-dwelling adults revealed that couples, who at study entry reported relatively low levels of common dyadic coping, were more likely to be divorced or separated five years later (Bodenmann & Cina, 2006).

Dyadic coping encompasses a broad range of dyadic responses to stress, so broad that any coping or supportive behavior by an individual who is also a member of a couple could be considered under its umbrella. The large range of dyadic coping allows it to capture numerous potential stress responses but makes it very difficult to assess. In addition, although the theory of dyadic coping allows for a stressor to be perceived as shared, the only validated assessment of dyadic coping, the Dyadic Coping Inventory, does not include items to assess shared appraisal (Bodenmann, 2008). Appraisals are central to understanding how the social context may effect perceptions of stress and downstream coping efforts.

Communal Coping

Another interpersonal coping strategy, with its roots in Lazarus's transactional stress and coping theory, and with similarities to common dyadic coping, is communal coping. The construct of communal coping refers to the joint efforts undertaken by two or more people in the face of a stressor (Lyons et al., 1998). Communal coping involves two processes: an appraisal of the stressor as shared (i.e., "our problem" as opposed to "my/your problem") and cooperative efforts to manage the stressor (Lyons et al., 1998). In research on communal coping, greater use of first-person plural pronoun use (*we-talk*) is assumed to reflect a more communal approach as opposed to greater use of first-person singular pronouns (*I-talk*) (Rohrbaugh, Mehl, Shoham, Reilly, & Ewy, 2008; Rolland, 1994). Previous research has primarily assessed communal

coping through the use of first-person plural pronoun use (*we-talk*), although self-report measures of communal coping exist (e.g., Rohrbaugh, Mehl, Shoham, Reilly, & Ewy, 2008; Helgeson, Jakubiak, Seltman, Hausmann, & Korytkowski, 2016) and behavioral coding schemes of communal coping have been developed (Helgeson, Jakubiak, Van Vleet, & Zajdel, 2018). We-talk can reflect a communal appraisal (e.g., “it is *our* problem”) as well as collaborative attempts at coping (e.g., “*we* talk about it and come up with a plan”). However, without coding for content these elements cannot be separated, whereas self-report measures of communal coping can separate the appraisal and coping components of communal coping. The current study attempted to manipulate communal appraisal and coping intentions by instructing participants to adopt a communal orientation to the stressor and to generate collaborative coping efforts.

Although communal coping has been studied almost exclusively in the context of chronic illness, the cognitive component of the construct, communal appraisals, bear similarity to a concept defined in relationship science, cognitive interdependence. An extension of interdependence theory, the investment model of commitment processes, and the self-expansion model (Aron, Aron, & Smollan, 1992; Aron, Aron, Tudor, & Nelson, 1991; Kelley & Thibaut, 1978; Rusbult, 1983), cognitive interdependence posits that with greater relationship commitment, the cognitive structures representing the self and other are reorganized so that the conception of self becomes one of the self-in-relationship (Agnew, Van Lange, Rusbult, & Langston, 1998; Brewer & Gardner, 1996). The association between commitment and cognitive interdependence is cyclical, in that greater commitment leads to greater interdependence which in turn leads to greater commitment. Greater spontaneous first-person plural pronoun use is an

indicator of greater cognitive interdependence (Agnew et al., 1998). The importance of cognitive interdependence has been examined as communal appraisals in health psychology literature.

We-talk is associated with positive relationship processes and quality. In cross-sectional studies, we-talk is associated with more positive problem-solving (Simmons, Gordon, & Chambless, 2005) and more positive and less negative emotional behavior in healthy couples' conflict discussions (Seider, Hirschberger, Nelson, & Levenson, 2009). A cross-sectional study revealed that spontaneous use of we-talk in unstructured relationship thought-listing tasks was associated with greater relationship commitment (Agnew et al., 1998). We-talk is also associated with greater relationship quality among samples with chronic illnesses (Helgeson et al., 2016; Rohrbaugh et al., 2008). In a cross-sectional study of family adjustment after diagnosis and treatment for breast cancer, greater we-talk by partners in family discussions was related to more positive relationship quality for both patients and their partners (Robbins, Mehl, Smith, & Weihs, 2013).

Communal coping is also associated with lower distress among couples managing chronic illnesses. In a cross-sectional study of family adjustment after breast cancer, greater we-talk by partners in family discussions was related to lower depressive symptoms for patients (Robbins et al., 2013). In a study of couples in which one partner was diagnosed with type 2 diabetes, patient and partner self-report measures of communal coping were associated with lower partner distress, whereas greater partner we-talk was associated with lower patient distress (Helgeson et al., 2016).

Research also links we-talk among couples to physiology and physical symptoms. Greater we-talk is associated with lower cardiovascular arousal for both members of the couple during conflict discussions (Seider et al., 2009). Longitudinal research reveals that communal

coping, as operationalized by we-talk, is associated with improvement of heart failure symptoms in patients whose spouses engage in we-talk, controlling for baseline levels of relationship quality (Rohrbaugh et al., 2008).

We-talk also predicts behavior change. A smoking cessation program using a family consultation intervention revealed that pre-treatment we-talk by both partners predicted a higher likelihood of the patient abstaining from smoking 12 months later (Rohrbaugh, Shoham, Skoyen, Jensen, & Mehl, 2012). An increase in we-talk during the intervention, controlling for baseline levels, also predicted smoking cessation (Rohrbaugh, Shoham, et al., 2012). In another couple-based intervention for alcohol use disorders, greater we-talk by patients and partners during the intervention was associated with abstinence during treatment and over the 6-month follow-up period (Hallgren & McCrady, 2016). Another couple-based intervention aimed at reducing problematic drinking behavior yielded similar results; greater we-talk by both patients and partners was associated with abstinence (Rentscher, Soriano, Rohrbaugh, Shoham, & Mehl, 2015).

Taken collectively, these studies suggest the potentially important role of communal appraisal and coping in adaptation to stressful experiences. However, these correlational findings cannot rule out reverse/reciprocal causality or third-variable explanations, such as relationship satisfaction or relationship duration explaining the association between communal coping and psychophysiological outcomes. Moreover, a thorough search of the relevant literature yielded no experimental research designed to allow causal inference regarding communal coping. Furthermore, the current body of research on communal coping has rarely incorporated outcome indicators in multiple domains of adaptation to stress. Finally, factors that moderate the

relationships between communal coping and outcomes rarely have been explored. The current study was designed to address these limitations in the literature.

Moderators of Communal Coping

Moderators of the relationship between communal coping and psychosocial and relational outcomes have not been examined previously. Potential moderators include dispositional communion and attitudes toward emotional expression. Communion is a trait that involves focus on others, forming social connections, and interdependence, and has been linked to the female gender role (Bakan, 1966) (Bem, 1974; Spence & Buckner, 2000). We posit that individuals who score higher on trait measures of communion may have more experience and comfort with adopting a communal perspective when coping with stressful experiences, such as relationship conflicts. Thus, participants who are high in dispositional communion and assigned to the communal coping condition may experience the most positive changes in psychosocial and relational outcomes.

Attitudes toward emotional expression may also play a moderating role in communal coping. Individuals in relationships high in communal strength are more willing to express emotions than individuals in relationships low in communal strength (Clark & Finkel, 2005). Specifically, negative attitudes toward emotional expression are associated with lower social support seeking (Joseph, Williams, Irwing, & Cammock, 1994), which may indicate less willingness to engage with others when experiencing a stressor. Engagement between partners is essential for coordination of coping attempts. Moreover, negative attitudes toward emotional expression may make it more difficult to communicate the experience of stress and support needs to one's partner. Although not essential for its occurrence, communication between partners about the stressor may make communal coping more likely. Communication between partners

concerning the negative emotions that commonly accompany a stressful experience would contribute to shared awareness that an event is perceived as stressful, thus initiating the process of a shared appraisal for both partners and subsequent coordination of coping efforts.

Overview of the Present Study

The present study is a randomized, controlled experiment to test the effects of induced communal appraisal and coping intentions on cardiovascular psychophysiology, affect, perceived stress, relationship satisfaction, approach-oriented relationship behaviors, physical symptoms, and health behaviors. Young adults (not couples) involved in an ongoing romantic relationship were recruited to participate in two sessions of a laboratory writing task designed to induce either communal or non-communal appraisal and coping regarding a relationship conflict. Interpersonal conflicts are a potent source of stress (Brooks & Dunkel Schetter, 2011), and negative social interactions have been associated with poorer health and wellbeing (Kiecolt-Glaser, Gouin, & Hantsoo, 2010; Robles & Kiecolt-Glaser, 2003; Rook, 1984).

Primary outcomes include affect, relationship satisfaction, physical symptoms, alcohol use, and heart rate. Primacy of dependent measures was determined by the presence of previous research examining the relationship between communal coping and these outcomes (or closely related ones in the case of distress, depressive symptoms, and negative affect as well as illness-related symptoms and physical symptoms). Previous research has revealed that communal coping is associated with lower distress and fewer depressive symptoms (Helgeson et al., 2016; Robbins et al., 2013), greater relationship quality (Helgeson et al., 2016; Robbins et al., 2013; Rohrbaugh et al., 2008), fewer illness-related symptoms (Rohrbaugh et al., 2008), less alcohol use (Hallgren & McCrady, 2016; Rentscher et al., 2015), and lower cardiovascular arousal during conflict discussions (Seider et al., 2009). Secondary outcomes include perceived stress,

sleep quality, and interpersonal approach-oriented behaviors. Literature regarding stress and coping broadly as well as the theoretical literature regarding communal coping indicate that there may be an effect of communal coping on these secondary outcomes. However, there is no empirical literature to link them specifically to communal coping.

Hypotheses based on the theoretical and correlational literature were that induced communal coping would: 1) produce lower state perceived stress, less negative state affect, greater state relationship satisfaction, and more interpersonal approach-oriented behaviors immediately after the second induction than the non-communal induction; 2) produce faster HR recovery after each writing session and lower HR reactivity in the second writing session, relative to the non-communal coping inductions; and 3) produce lower perceived stress, less negative affect, greater relationship satisfaction, more interpersonal approach-oriented behaviors, better sleep quality, lower alcohol use, and fewer physical symptoms at the one-week follow-up than the non-communal inductions.. In addition, the extent to which gender, communion, and attitudes toward emotional expression moderate the effects was examined, such that female gender, higher dispositional communion, and more positive attitudes toward emotional expression were hypothesized to strengthen the association between induced communal coping and more positive outcomes. A randomized, controlled experiment was performed, in which participants were randomized to one of three conditions (i.e., induction of communal appraisal and coping as the couple's problem, non-communal appraisal and coping as the participant's problem, or non-communal appraisal and coping as the partner's problem). Assessments were conducted at baseline prior to randomization, before and after each of the two writing sessions, and at one-week follow-up.

Method

Participants

Eligible participants were: 1) at least 18 years of age, 2) involved in an ongoing romantic relationship of at least 6 months, 3) willing and able to attend two experimental sessions, and 4) comfortable reading and writing in English without a dictionary. Participants were excluded if their partner previously participated in the study. Of the 144 participants who signed up and completed informed consent and the baseline questionnaire, 135 attended Session 1 and were randomized to a condition: 47 participants were assigned to the communal appraisal and coping condition, and 44 participants were assigned to each of the non-communal appraisal and coping conditions. There were no statistically significant differences on sociodemographic or outcome variables between the participants who were randomized to condition and participants who dropped out prior to randomization. Three participants dropped out of the study after randomization, one from each condition. Two of the participants indicated that they withdrew from the study because they no longer needed study credit for their courses and one participant did not report a reason. The data from two participants were removed from the Non-Communal Partner condition because the participants did not meet eligibility criteria upon further examination (i.e., one participant was unable to write in English fluently without a dictionary, one participant was not in a relationship at the time of the study).

Procedure

In accordance with Institutional Review Board (IRB) approval, participants were recruited through the University of California, Los Angeles Psychology Department online participant pool. Two to seven days prior to laboratory sessions, participants provided informed consent and completed baseline questionnaires online of personal, partner, and relationship characteristics, relationship satisfaction, perceived stress, affect, physical symptoms, health

behaviors, attitudes toward emotional expression, and dispositional communion (Figure 1). If participants did not complete the baseline questionnaires in advance of their scheduled appointment, they completed them upon arrival to the lab.

Participants came into the laboratory for Session 1 and provided informed consent for the remainder of the study. A trained researcher fit the participants with a blood pressure cuff (GE Critikon Dinamap Pro 100) that inflated every minute throughout the experiment to assess heart rate. On a computer, participants completed pre-induction questionnaires of state perceived stress, state affect, and state relationship satisfaction. Participants were asked to create a list of current disagreements or conflicts in their relationship, nominate the most stressful one, and describe it briefly in writing. Participants rated the stressfulness of the conflicts from 1 (*not at all stressful*) to 7 (*extremely stressful*).

To establish a physiological baseline while resting, after completing the questionnaires, participants were played a recording which asked them to sit quietly with their eyes closed for 5 minutes. Next, participants were played a recording which asked them to describe the laboratory room, in writing, on the computer, for 5 minutes to establish a physiological baseline while writing (see Table 1 for instructions). The same recordings of task instructions were used for all participants to ensure consistency and fidelity to the instructions across experimenters. Next, participants were randomized to one of three writing conditions (Table 1 for instructions). To ensure balanced sample sizes across groups and equal representation of genders within each group, block randomization stratified by gender was used to assign participants to a condition. Participants were randomized in blocks of 15. The experimenter was unaware of the study condition until after the baseline questionnaires were completed, at which point they opened an envelope with the condition.

Prior to completing the coping induction task, participants took part in a brief training to increase their comfort with the relevant pronouns for their assigned study condition (Fitzsimons & Kay, 2004). Specifically, participants completed eight sentences that began with the pronouns that corresponded to their writing condition (Table 2). After completing the training on the computer, participants were played the instructions for their writing tasks. Instructions for the writing conditions were provided in written form and as an audio recording to encourage compliance. In addition, the relevant pronouns for the assigned condition were included at the top and bottom of each page to remind the participants of the instructions.

The three writing tasks to which the participants were randomized were: (1) a communal coping (CC) condition in which participants were instructed to think about the relationship conflict as “our problem,” to generate ways in which they can cope or are coping collaboratively with the stressor, and use first-person plural pronouns in the essay, (2) a non-communal coping (NC-Own) condition in which participants were instructed to think about the relationship stressor as primarily their own problem, generate ways in which they can cope or are coping with the problem, and use first-personal singular pronouns in the essay, or (3) a non-communal coping (NC-Partner) condition in which participants were instructed to think about the relationship stressor as primarily their partner’s problem, generate ways in which their partner can cope or is coping with the problem, and use third-person singular pronouns in the essay (Table 1). Participants wrote for 20 minutes in each of the two sessions. Writing instructions for the three conditions encouraged continuous writing (Pennebaker & Beall, 1986).

CC: Conflict is a common part of all relationships. Some conflicts are understood to be shared (i.e., “our problem”). What I would like you to write about is the current conflict or disagreement in your relationship. During this task please think about the conflict as “our problem” (you and your partner’s) when writing about it. As you just did in the previous task, please use the pronouns we, us, our, and ours in your essay as often as possible. Consider efforts you took with your

partner to cope with the problem or efforts you and your partner could take to cope with the problem. The only rule we have is that you write continuously for the entire time. If you run out of things to say, just repeat what you have already written. Don't worry about grammar, spelling or sentence structure. Don't worry about erasing or crossing things out.

NC-Own: Conflict is a common part of all relationships. Some conflicts are understood to be the responsibility of one partner (i.e., "my problem"). What I would like you to write about is the current conflict or disagreement in your relationship. During this task please think about the conflict as "my problem" (solely yours) when writing about it. As you just did in the previous task, please use the pronouns I, me, my, and mine in your essay as often as possible. Consider efforts you took to cope with the problem or efforts you could take to cope with the problem. The only rule...[Repeat identical instructions]

NC-Partner: Conflict is a common part of all relationships. Some conflicts are understood to be the responsibility of one partner (i.e., "his/her problem"). What I would like you to write about is the current conflict or disagreement in your relationship. During this task please think about the conflict as "his/her problem" (solely your partner's problem) when writing about it. As you just did in the previous task, please use the pronouns he/she, him/her, and his/hers in your essay as often as possible. Consider efforts your partner has taken to cope with the problem or efforts your partner could take to cope with the problem. The only rule...[Repeat identical instructions]

After the 20-minute writing session, participants were asked to describe the laboratory room in writing for a five-minute recovery period. Immediately following the recovery period, participants responded to questionnaires on state affect, state relationship satisfaction, state stress, state interpersonal approach behavior, and communal appraisals.

Participants returned for a second writing session one week later that was identical to the first (i.e., experimental condition and questionnaires remained the same). Two writing sessions were used because in previous studies, the effects of written manipulations did not emerge until the second session, likely indicating that greater practice with and exposure to the tasks produce stronger effects (Low, Stanton, & Bower, 2008; Stanton et al., 2002).

One week following Session 2, participants were emailed a survey and asked to complete measures of affect, relationship satisfaction, physical symptoms, health behaviors, interpersonal

approach behaviors and perceived stress. After the follow-up, participants were debriefed, given the opportunity to ask questions, and offered compensation for their participation (course credit).

Measures

Personal and partner characteristics. In the baseline questionnaire, participants self-reported age, gender identification, academic year, and race/ethnicity for themselves and their partners. Number of years speaking English, age at which English was first learned, language primarily spoken at home, and fluency in other languages was also assessed because of the nuances in language involved in this experimental protocol.

Relationship characteristics. Relevant characteristics such as relationship duration, current long-distance relationship, any previous break-ups with the current partner, marital status, cohabitation, presence of children in the home, and nights spent together per week were self-reported by participants in the baseline questionnaire. In addition, to describe participants' relationships at baseline, participants responded to two versions of the Inclusion of Other in the Self Scale (IOS; Aron et al., 1992), one which asked participants to indicate how they viewed their relationships generally, and a modified one which asked participants to indicate how they dealt with conflict in their relationships. The IOS scale includes a set of seven overlapping circles labeled self and other, with increasing amounts of overlap, and is intended to measure relationship closeness and cognitive interdependence (Aron et al., 1992). Modified versions of the IOS scale have been used previously as a self-report of communal coping (Helgeson et al., 2016).

Within-Session Primary Outcomes

State affect. State affect was assessed in Sessions 1 and 2 before and after the coping induction using the modified 20-item PANAS-X (Watson & Clark, 1999). Participants indicated

the degree to which they were *currently* experiencing a negative emotion. Participants also reported on their *current* experience of interpersonal emotions of anger (i.e., resentment, anger, frustration) directed toward their partners (Algoe & Stanton, 2012). Internal consistency reliability for this sample was 0.82 (Session 1 pre-induction individual negative affect), 0.86 (Session 1 pre-induction partner-directed negative affect), 0.78 (Session 1 post-induction individual negative affect), 0.84 (Session 1 post-induction partner-directed negative affect), 0.82 (Session 2 pre-induction individual negative affect), 0.81 (Session 2 pre-induction partner-directed negative affect), 0.76 (Session 2 post-induction individual negative affect), and 0.82 (Session 2 post-induction partner-directed negative affect).

State relationship satisfaction. State relationship satisfaction (SRS; Hofmann, Finkel, & Fitzsimmons, 2015) was assessed prior to and following the coping induction in Session 1 and 2, by asking participants how satisfied they *currently* were with their relationship on a scale from 0 (*very dissatisfied*) to 7 (*very satisfied*).

Heart rate. Heart rate (HR) was collected using a blood pressure cuff (GE Critikon Dinamap Pro 100) placed on the participant's non-dominant arm. Measurements were taken every minute during the in-person laboratory sessions. HR was averaged across study time periods with five repeated measures for each participant within each session: (1) resting baseline, (2) writing baseline, (3) first 10 minutes of the coping induction, (4) second 10 minutes of the coping induction, and (5) recovery. The coping induction HR values were split into two time periods to allow for more sensitivity to change over the course of the induction.

Within-Session Secondary Outcomes

State perceived stress. State stress was assessed prior to and following the coping induction writing tasks in Sessions 1 and 2 using a modified version of the 4-item Perceived

Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) with state instructions. Participants responded to each question using a 5-point scale about their current feelings ranging from 1 (*not at all*) to 5 (*very much*). For example, the question, “In the past month how often have you felt that you were unable to control the important things in your life?” was altered to read, “In the present moment, do you feel that you are unable to control the important things in your life?” Internal consistency reliability for this sample was 0.78 (Session 1 pre-induction), 0.79 (Session 1 post-induction), 0.73 (Session 2 pre-induction), and 0.77 (Session 2 post-induction).

One-Week Follow-up Primary Outcomes

Affect. Affect was measured at the baseline and follow-up assessments using 20 items from the Positive and Negative Affect Schedule Expanded Form (PANAS-X; Watson & Clark, 1999). The PANAS-X is a 60-item scale that assesses positive and negative affect, shyness, fatigue, serenity, and surprise. Items selected from the PANAS-X were chosen to capture both negative affect as well as socially-relevant emotions such as guilt and loneliness. The ten items used to assess negative affect were distressed, upset, sad, irritable, nervous, afraid, hostile, guilty, lonely, and ashamed. In the baseline and follow-up questionnaires, participants indicated the degree to which they had experienced an emotion over the past week using a response scale from 1 (*very slightly or not at all*) to 5 (*extremely*).

Participants also self-reported on interpersonal emotions of anger (i.e., resentment, anger, frustration) on a response scale from 1 (*very slightly or not at all*) to 5 (*extremely*) (Algoe & Stanton, 2012). Instructions directed participants to think about how they have felt about their partners in the past week. Raw scores for the items were summed to create a composite score for individual and partner-directed negative affect, with higher scores indicating greater negative affect. Internal consistency reliability for this sample was 0.81 (baseline individual negative

affect), 0.79 (baseline partner-directed negative affect), 0.81 (follow-up individual negative affect), and 0.80 (follow-up partner-directed negative affect).

Relationship satisfaction. The 7-item Relationship Assessment Scale (RAS; Hendrick 1988) assessed relationship satisfaction at the baseline and follow-up assessments. Participants responded to the items using a 5-point response scale ranging from 1 (*low satisfaction*) to 5 (*high satisfaction*). This scale has been validated in college students and low scores are predictive of future break-up (Hendrick, 1988). Internal consistency reliability for this sample was 0.78 (baseline) and 0.88 (follow-up).

Physical symptoms. Physical symptoms were measured at the baseline and one-week follow-up assessments using a modified version of the Pennebaker Inventory of Limbic Languidness (PILL; Pennebaker, 1982; King & Emmons, 1990; Stanton et al., 2002). Participants were asked to indicate the number of days on which they experienced nine physical symptoms in the past week, that were not the result of exercise: headache, chest pain, coughing/sore throat, shortness of breath, stiff/sore muscles, stomach ache/pain/upset, runny/congested nose, faintness/dizziness, and racing/pounding heart. The scale ranges from 0 to 63, with greater numbers indicating the presence of more physical symptoms of the best past days. Internal consistency reliability for this sample was 0.77 (baseline) and 0.74 (follow-up).

Alcohol use. Alcohol use in the past week was measured at the baseline and one-week follow-up questionnaires using two items about the frequency of drinking (i.e., number of days in the past week that at least one drink was consumed) and the number of standard drinks (i.e., one shot glass of liquor, one 12 oz. beer, one 5 oz. glass of wine is 1 standard drink) they consumed in the past week (National Institute on Alcohol Abuse and Alcoholism, 2003). Items were assessed as separate indicators of alcohol use.

One-Week Follow-up Secondary Outcomes

Perceived stress. In the baseline and one-week follow-up assessments, the 10-item Perceived Stress Scale (PSS; Cohen, Kamark, & Mermelstein, 1983) was used to assess the degree to which participants felt their lives were overwhelming, unpredictable, and uncontrollable in the past week. Participants responded to each statement on a 5-point Likert scale ranging from 0 (*never*) to 4 (*very often*). The PSS yields scores from 0 to 40, with higher summed scores indicative of greater perceived stress. Internal consistency reliability for this sample was 0.88 (baseline) and 0.85 (follow-up).

Sleep quality. In the baseline and one-week follow-up assessments, the 8-item Patient-Reported Outcomes Measurement Information System (PROMIS) Sleep Disturbance short form assessed sleep disturbance and related impairment (Yu et al., 2012). Participants indicated the severity of their sleep disturbance over the past 7 days with higher scores indicate greater sleep disturbance. Internal consistency reliability for this sample was 0.87 (baseline) and 0.87 (follow-up).

Interpersonal approach-oriented behaviors. In the author-constructed post-induction questionnaires, participants were asked if they had no other commitments whether or not they would like to see their partners, and if so, how much time they would like to spend with their partners. The responses were used to create a single continuous variable ranging from 0 (did not want to see their partners) to 24 hours, with greater numbers indicating interpersonal approach. In the one-week follow-up questionnaire, participants were asked how many days and nights in the past week they would have liked to have spent with their partners if they had no other commitments.

Moderators

Dispositional communion. In the baseline questionnaire, dispositional communion was measured using the 24-item Personal Attributes Questionnaire (PAQ; Spence, Helmreich, & Stapp, 1974), eight items each assess communion, agency, and androgyny. Participants indicated on a five-point scale the extent to which they felt a specific adjective or phrase characterizes them (e.g., “very cold in relation to others” and “very warm in relation to others.”). The communion subscale was summed with larger values indicating a greater dispositional communal orientation (Cronbach’s alpha = 0.71).

Baseline attitudes toward emotional expression. In the baseline questionnaire, attitudes toward emotional expression were evaluated using a 20-item scale with four subscales that assessed (1) behavioral style regarding emotions and beliefs about the (2) meaning, (3) expression, and (4) consequences of emotions (Joseph et al., 1994). Sample items include “My bad feelings will harm other people if I express them.” and “I think you should always keep your feelings under control.” Participants indicated how much they agree or disagree with each statement using a response scale that ranges from 1 (*disagree very much*) and 5 (*agree very much*), with higher scores indicating more negative attitudes toward emotional expression. This scale has been used with success in samples of undergraduate students (Spokas, Luterek, & Heimberg, 2009). Internal consistency reliability for this sample was 0.89.

Manipulation Checks

Essay instruction coding. First, two trained independent raters, who were provided with the writing instructions for each condition, read all pairs of essays in random order and indicated which condition the essay best reflected.

Pronoun analysis. Next, all essays were analyzed with the text analysis program, Linguistic Inquiry and Word Count (LIWC; Pennebaker, Francis, & Booth, 2007). LIWC searches text files and computes percentages out of a total number of words that are judged to reflect a particular category. To address the research questions of interest, we focused on first- and third-person pronouns; in particular, first person plural pronouns (we-talk), first person singular pronouns (I-talk), third person singular pronouns (s/he-talk), and first-person pronouns that are plural rather than singular (we-talk:I-talk ratio) and the ratio of we-talk:s/he-talk. The first set of pronoun variables allow for examination of we-talk, I-talk, and s/he-talk independently, whereas the ratio variables capture the relative balance between we-talk and I-talk as well as we-talk and s/he-talk.

Conflict-specific communal appraisals and coping intentions. Communal coping was measured after Session 1 and Session 2 using two self-report items intended to assess appraisal and collaboration (Rohrbaugh, Shoham, et al., 2012). The items were: “When thinking about the disagreement you just wrote about, whose responsibility do you feel it is? And “How much would you like to work together with your partner to resolve this disagreement?” The response scale for the appraisal item ranges from 1 (*completely my responsibility*) to 5 (*completely my partner’s responsibility*), with higher and lower scores indicating a non-communal appraisal and a 3 indicating a communal appraisal. The response scale for the collaboration item ranges from 1 (*none of the time*) to 5 (*all of the time*), with higher values reflecting greater collaboration (Rohrbaugh, Kogan, & Shoham, 2012).

Data Analysis Plan

First, to check that participants had adhered to the essay instructions, one-way analyses of variances (ANOVA) were conducted in SPSS v22 to examine differences between experimental

conditions in pronoun use. Post-hoc independent sample t-tests were used to explore the group differences. Next, descriptive statistics were computed for personal, partner, and relationship characteristics. For continuous variables, ANOVA, and for categorical variables, chi-squared tests were conducted on each variable separately to assess if the experimental groups differed on demographic, outcome, or moderator variables, prior to randomization. There were no baseline differences between experimental groups on any outcome or moderator variable. There was a baseline difference between conditions on participants' race/ethnicity ($\chi^2(8) = 18.67, p = 0.017$), with differences between groups on the percentages of individuals who identified as White, Asian, Latinx and Bi/Multi-Racial (see Table 5 for participants' race/ethnicity by condition). Race/ethnicity was controlled in all analyses. For analyses, race/ethnicity was controlled and was dummy coded into three variables, Asian, Latinx, and other, with White as the comparison group.

To examine the first hypothesis, MPlus version 8 was used to conduct analyses of covariance (ANCOVA) for Session 1 and Session 2 post-induction measures to determine if changes in state affect, state perceived stress, approach-oriented relationship behaviors, and state relationship satisfaction differed by experimental group assignment, with pre-induction levels of the dependent variables as the covariate. A regression framework was used with the pre-induction levels of the dependent variable, race/ethnicity dummy codes, and experimental condition dummy codes entered into the model. Coefficient estimates were obtained but not F-statistics as MPlus does not produce them. To account for any missing data, full information maximum likelihood was used (FIML; Enders, 2001).

To determine if HR reactivity and recovery differed by experimental condition, multilevel modeling was conducted using HLM version 7 to account for the non-independence

of repeated measures (Kristjansson, Kircher, & Webb, 2007). First, an unconditional model without predictors was fit, and likelihood ratio tests were conducted to test random intercept and quadratic slope terms, which represent variability in participants' baseline levels of and quadratic trajectory of HR, respectively. Then, to examine the effect of condition on change in HR over time, a model was fit with experimental condition, race/ethnicity, time, and the interaction between time and condition as predictors. Repeated HR measures (Level 1) were nested within the individual (Level 2). A two-level model was used to test the curvilinear trajectory of HR, this model allowed for the examination of group differences in HR reactivity as well as recovery. Time and Time² were Level 1 variables and given the between-subjects experimental design, experimental group assignment and race/ethnicity were analyzed as a Level 2 variables. Experimental group assignment was dummy coded with one dummy code representing the effect of CC compared to NC-Own and the second dummy code representing the effect of CC compared to NC-Partner. Time was coded as 0, 1, 2, 3, and 4 to represent the measurement periods (i.e., resting baseline, writing baseline, first 10 minutes of the coping induction, second 10 minutes of the coping induction, writing recovery).

To address the third hypothesis, MPlus version 8 was used to conduct ANCOVA for follow-up measures to determine if changes in affect, relationship satisfaction, physical symptoms, alcohol use, perceived stress, and sleep quality differed by experimental group assignment, with baseline levels of the dependent variables as the covariate. ANOVAs were conducted on the follow-up interpersonal approach variables of actual and desired amount of time spent together.

Moderation was tested using a regression framework to determine if the relationship between experimental group condition and affect, relationship satisfaction, perceived stress, HR

reactivity and recovery, physical symptoms, sleep, and alcohol use varies across levels of the proposed moderators (dispositional communion and attitudes toward emotional expression). Continuous moderators were centered in accordance with current recommendations (Preacher, Curran, & Bauer, 2006). The baseline or pre-induction measure of the dependent variable and the race/ethnicity variable were entered into the first step of the regression equation. The condition variable and the moderator were entered into the second step of the regression and the interaction term between the condition and the moderator was included in the third step. Any significant moderation effects were probed to determine the nature of moderation (Holmbeck, 2002; Preacher et al., 2006), by examining the relationship between the outcome and the predictor at one standard deviation below the mean, the mean, and one standard deviation above the mean of the moderator.

Results

Sample Characteristics

On average, participants were 20 years old and self-identified as being Asian (37.4%), Latinx (27.6%), or non-Hispanic white (23.6%). Most participants were female (84.1%) and spoke English as a first language (87.3%). On average, partners were 21 years old and were identified by participants as White (31.1%), Asian (30.3%), or Latinx (23.5%). The majority of partners were male (84.1%). See Table 3 for participant and partner characteristics.

Relationship Characteristics

The majority of participants were not married (96.2%), did not cohabitate (88.6%), had no children (98.5%), and were in heterosexual relationships (95.5%). The average relationship duration was 25 months. On average, participants spent 2 nights together per week, 44.7% of participants were in a long-distance relationship at the time of the study, and 33.3% of

participants had previously broken up with their current partner. See Table 4 for relationship characteristics.

Manipulation Checks

Essay instruction coding. Two independent raters, provided with essay instructions, correctly categorized 96% of the essays, indicating participants' excellent adherence to condition instructions.

Pronoun analysis. LIWC was used to assess pronoun use in participants' essays. There was a significant difference between conditions in first-person plural pronoun use for Session 1 ($F(2,131) = 294.93, p < .001$) and Session 2 ($F(2,131) = 174.71, p < .001$) (see Table 5 for pronoun descriptive statistics). Post-hoc pair-wise comparisons revealed that participants in the CC condition (Session 1 $M = 7.78, SD = 2.18$, Session 2 $M = 7.04, SD = 2.45$) used a significantly higher proportion of first-person plural pronouns in their essays than the NC-Own (Session 1 $M = 1.17, SD = 0.96$, Session 2 $M = 1.25, SD = 0.99$) or NC-Partner (Session 1 $M = 1.18, SD = 0.86$, Session 2 $M = 1.30, SD = 1.10$) conditions in Session 1 or 2 (p 's $< .001$).

There was a significant difference between conditions in first-person singular pronoun use for Session 1 ($F(2,131) = 115.65, p < .001$) and Session 2 ($F(2,131) = 95.18, p < .001$). Individuals in the NC-Own (Session 1 $M = 10.51, SD = 2.24$, Session 2 $M = 10.70, SD = 2.18$) condition used a greater proportion of first-person singular pronouns in their essays than participants in the CC (Session 1 $M = 2.96, SD = 2.29$, Session 2 $M = 3.39, SD = 2.67$) or NC-Partner (Session 1 $M = 6.77, SD = 2.50$, Session 2 $M = 6.20, SD = 2.63$) conditions for Session 1 and Session 2 (p 's $< .001$).

Third-person singular pronoun use also differed significantly between conditions for Session 1 ($F(2,131) = 141.12, p < .001$) and 2 ($F(2,131) = 105.24, p < .001$). Post-hoc pair-wise

comparisons revealed that as anticipated, participants in the NC-Partner (Session 1 $M = 8.62$, $SD = 2.12$, Session 2 $M = 8.69$, $SD = 2.96$) condition used greater third-person singular pronouns in Session 1 and Session 2 essays than participants in the CC (Session 1 $M = 1.92$, $SD = 1.72$, Session 2 $M = 1.87$, $SD = 1.96$) or NC-Own conditions (Session 1 $M = 3.22$, $SD = 2.05$, Session 2 $M = 3.01$, $SD = 1.92$) (p 's < .001).

Moreover, examination of ratios of first-person plural pronouns to first- and third-person singular pronouns indicated a greater balance towards first-person plural pronouns in the CC condition essays as compared to NC-Own and NC-Partner essays (Table 5). Consistent with rater evaluations, these findings suggest that participants adhered to essay instructions. See Table 6 for excerpts of essays characteristic of each condition.

Conflict-specific communal appraisals and coping intentions. There was a significant difference between conditions on conflict appraisal after Session 1 ($F(2,126) = 8.03$, $p = 0.001$) and Session 2 ($F(2,126) = 9.630$, $p < 0.001$). Post-hoc pair-wise comparisons revealed that participants in the CC condition (Session 1 $M = 3.13$, $SD = 0.55$, Session 2 $M = 3.00$, $SD = 0.58$) were more likely to view the conflict as shared than participants in the NC-Own (Session 1 $M = 2.84$, $SD = 0.72$, Session 2 $M = 2.65$, $SD = 0.75$) or NC-Partner (Session 1 $M = 3.44$, $SD = 0.75$, Session 2 $M = 3.31$, $SD = 0.69$) conditions (all $p < 0.043$). The response scale for the appraisal item ranged from 1 (*completely my responsibility*), 3 (*both our responsibility*), to 5 (*completely my partner's responsibility*), with higher and lower scores indicating a non-communal appraisal and a 3 indicating a communal appraisal. Thus, the findings indicate that participants' appraisals corresponded to their experimental conditions. There was no significant difference, however, between conditions on desire for conflict-specific collaboration for Session 1 ($F(2,126) = 0.80$, $p = 0.450$) or 2 ($F(2,126) = 0.60$, $p = 0.553$).

Essay Content

There were no significant differences between conditions on average number of words used in essays during Session 1 ($F(2,131) = 2.20, p = 0.115$) or Session 2 ($F(2,131) = 2.28, p = 0.106$). Across conditions, the number of words averaged 715.50 ($SD = 265.23$) in Session 1 and 744.33 ($SD = 264.10$) in Session 2.

The mean rating for stressfulness of the nominated conflict was 5.58 ($SD = 1.28$), on a scale that ranged from 1 (not very stressful at all) to 7 (very stressful), and participants in the three conditions did not differ significantly on conflict stressfulness, $F(2,130) = 0.704, p = 0.497$. Topics of conflict were coded by two trained coders into common themes as suggested by prior research (Gottman, Markman, & Notarius, 1977). The most common areas of conflict were communication (29%), time spent together (14%), jealousy/infidelity (14%), and career/academics (11%). Other areas of conflict included: demonstrations of affection (7%), friendships/social activities outside the relationship (6%), family relationships (5%), finances (4%), household chores (2%), religious values (2%), sex (2%), substance use (2%), political views (1%), food choices (1%), and child-rearing practices (1%). See Table 7 for frequencies of conflict topics.

Descriptive statistics for all dependent variables (primary and secondary) and moderator variables are presented in Table 8 and bivariate correlations between dependent and moderator variables at baseline are presented in Table 9.

Effects of Experimental Condition on Within-Session Primary Outcomes

State individual negative affect. There was no significant effect of condition on change in state individual negative affect within Session 1 ($p = 0.090$). In Session 2, the significant effect of CC vs. NC-Own was qualified by a significant interaction. Specifically, dispositional

communion significantly moderated the effect of condition on the change in individual negative affect, specifically for participants in the CC vs. NC-Own condition ($b = 0.355, p = 0.019$), as shown in Table 10. Regarding change across sessions, there was no significant effect of condition on change in individual negative affect from Session 1 pre-induction to Session 2 post-induction. Figure 2 plots change in state individual negative affect at the mean of dispositional communion and one standard deviation above and below the mean. On average, the sample evidenced a decline in individual negative emotions from Session 1 pre-induction to Session 2 post-induction, but the trajectory of decline in individual negative affect was significantly greater for CC condition participants with moderate (the mean) or high dispositional communion (one standard deviation above the mean) than for participants with moderate (the mean) or high dispositional communion (one standard deviation above the mean) in the NC-Own condition (p 's < 0.017). There were no differences between participants at low levels (one standard deviation below the mean) of dispositional communion ($p = 0.911$)

State partner-directed negative affect. In Session 1, the CC vs NC-Own main effect on the change in partner-directed negative affect from pre-induction to post-induction was qualified by a significant interaction with attitudes toward emotional expression ($b = -0.074, p = 0.012$) (Table 11). Specifically, within participants with more positive attitudes toward emotional expression (one standard deviation below the mean), participants in the CC condition evidenced a decline in partner-directed negative affect, whereas NC-Own participants increased in partner-directed negative affect from Session 1 pre-induction to post-induction ($p = 0.014$). Within participants with average (mean) or more negative attitudes toward emotional expression (one standard deviation above the mean) there were no differences between conditions (p 's > 0.371) Figure 3 plots the change in state partner-directed negative affect at the mean of attitudes toward

emotional expression and one standard deviation above and below the mean. In Session 2, condition did not significantly predict change in partner-directed negative affect from pre-induction to post-induction ($p = 0.511$).

Experimental condition also influenced change in partner-directed negative affect from Session 1 pre-induction to Session 2 post-induction (Table 12). Specifically, participants in the CC condition declined in partner-directed negative affect whereas participants in the NC-Partner condition increased ($b = 0.866, p = 0.023$) across sessions. There was no difference in trajectories between NC-Own and CC conditions ($b = 0.194, p = 0.606$). Moderation models with dispositional communion were tested and were non-significant as were the moderation models with attitudes toward emotional expression, with the exception of Session 1 (p 's > 0.125). Figure 4 contains a graph of the linear trajectory of partner-directed negative affect for each condition, across Session 1 and 2.

State relationship satisfaction. State relationship satisfaction was negatively skewed, with approximately 80% of the sample reporting relationship satisfaction greater than 6 (on a scale from 1-7) at all assessments. To account for the non-normality of the data, a square root transformation was used in accordance with current statistical guidelines (Howell, 2007; Tabachnick & Fidell, 2007). There was no significant effect of condition on change in relationship satisfaction within Session 1, Session 2, or across sessions (p 's > .09).

Heart rate. A two-level growth curve model was used to examine reactivity and recovery of heart rate within each session. Models revealed that there were no effects of

condition on heart rate reactivity or recovery in Sessions 1 or 2. Models with the proposed moderators were also non-significant.¹

Effects of Experimental Condition on Within-Session Secondary Outcomes

State perceived stress. The significant effect of CC vs NC-Own on change in perceived stress from Session 1 pre-induction to Session 2 post-induction was moderated by dispositional communion ($b = 0.306, p = 0.043$) (Table 13). Figure 5 plots the change in state perceived stress at the mean of dispositional communion and one standard deviation above and below the mean. At average and higher levels of dispositional communion (one standard deviation above the mean), participants in the CC condition had a decline in perceived stress from baseline to follow-up, whereas participants in the NC-Own condition did not (p 's > 0.017). At lower levels of dispositional communion (one standard deviation below the mean), there were no differences between conditions ($p = 0.399$) Attitudes toward emotional expression did not significantly moderate the relationship between experimental condition and state perceived stress (all $p > 0.140$).

Interpersonal approach-oriented behaviors. There was no significant effect of condition on change in approach-oriented behaviors (i.e., change in desired amount of time spent together) between Session 1 and 2 ($p = 0.631$). Models tested with the proposed moderators were also non-significant (all $p > 0.762$).

¹ An alternative segmentation of HR was also examined with HR was averaged across study time periods with four repeated measures for each participant within each session: (1) resting baseline, (2) writing baseline, (3) coping induction, and (4) recovery. There were no significant findings with the alternative approach to processing the dependent variable.

Effects of Experimental Condition on Follow-Up Primary Outcomes

Individual negative affect. Experimental condition did not predict change in individual negative affect from baseline to follow-up ($p > 0.602$). Models with the two proposed moderators, dispositional communion and attitudes toward emotional expression, were also tested and non-significant (all $p > 0.643$).

Partner-directed negative affect. Change in partner-directed negative affect from baseline to follow-up did not differ significantly as a function of experimental condition ($p = 0.518$). Moderation models were also non-significant (all $p > 0.104$).

Relationship satisfaction. There was no significant effect of condition on change in relationship satisfaction from baseline to follow-up ($p = 0.788$). Models with moderation were also tested and non-significant (all $p > 0.589$).

Physical symptoms. Condition significantly predicted change in physical symptoms from baseline to follow-up, shown in Table 14. Specifically, self-reported physical symptoms increased for participants in the CC condition and decreased for participants in the NC-Partner condition ($b = -5.123$, $p = 0.001$). See Figure 6 for the trajectories of physical symptoms across baseline and follow-up assessments. There were no significant moderators of the relationship between condition and physical symptoms (all $p > 0.759$).

Alcohol use. Alcohol use was positively skewed with approximately 55% of the sample reporting the consumption of no drinks in the past week at baseline and follow-up. To account for the non-normality of the data, a log transformation of alcohol use was used in accordance with current statistical guidelines (Howell, 2007; Tabachnick & Fidell, 2007). The significant effect of CC vs NC-Partner on change in alcohol use from baseline to follow-up was moderated by attitudes toward emotional expression ($b = 0.013$, $p = 0.021$), shown in Table 15. Specifically,

within participants with more positive attitudes toward emotional expression (i.e., one standard deviation above the mean), participants in the CC condition had a decline in alcohol use and participants in the NC-Partner condition had an increase from baseline to follow-up ($p = 0.019$) (Figure 7). Among participants with average or more negative attitudes toward emotional expression (i.e., one standard deviation above the mean), there was no difference between CC and NC-Partner (p 's > 0.327) There was no statistically significant difference in change in alcohol use between CC and NC-Own ($b = -0.001, p = 0.881$). Dispositional communion did not moderate the relationship between experimental condition and alcohol use ($p = 0.743$).

Effects of Experimental Condition on Follow-Up Secondary Outcomes

Perceived stress. The significant effect of CC vs NC-Partner on change in perceived stress from baseline to follow-up was qualified by a significant interaction with dispositional communion ($b = 0.757, p = 0.037$), shown in Table 16. Figure 8 plots the change in perceived stress at the mean of dispositional communion and one standard deviation above and below the mean. At higher levels of dispositional communion (one standard deviation above the mean), participants in the CC condition had a decline in perceived stress from baseline to follow-up, whereas participants in the NC-Partner condition did not ($p = 0.037$). At average and lower levels of dispositional communion (one standard deviation below the mean), there was no difference between CC and NC-Partner in change in perceived stress (p 's > 0.399). Attitudes toward emotional expression did not significantly moderate the relationship between experimental condition and perceived stress ($p = 0.534$).

Sleep quality. There was no significant effect of condition on change in sleep quality from baseline to follow-up ($p = 0.328$). In addition, there were no significant interactions between the proposed moderators and experimental condition on sleep quality (p 's > 0.227).

Interpersonal approach-oriented behaviors. At follow-up, there was no significant effect of condition on actual or desired amount of time spent together ($p = 0.323$). Models tested with the proposed moderators were also non-significant (p 's > 0.106).

Discussion

The large theoretical and empirical literature on stress and coping has primarily focused on intra-individual processes (Carver & Scheier, 1999) and largely has not accounted for the importance of the social contexts in which stressful events occur. Communal coping, which involves shared appraisals of a stressor and collaborative attempts at coping, is one construct that attempts to incorporate the social context of stressful experiences within coping (Lyons et al., 1998). The purpose of the present study was to compare the effects of experimental manipulations of communal and non-communal appraisals and coping intentions on multiple indicators of stress in a sample of adults currently experiencing a conflict in their romantic relationship. Like other chronic stressors, conflict in intimate relationships is associated with poorer endocrine, cardiovascular, and immune functioning (Kiecolt-Glaser et al., 2010; Kiecolt-Glaser & Newton, 2001; Robles & Kiecolt-Glaser, 2003) and greater distress (Fincham, 2003; Rook, 1984). Identifying effective and efficient interventions is essential for improving the health and well-being of individuals facing relationship conflicts and other stressors. The main effects of the experimental manipulations were examined on psychosocial and health-relevant outcomes, as well as the interaction between experimental condition and theoretically-relevant moderator variables.

To be eligible for the present study, participants had to be in an intimate relationship of at least 6 months. On average, participants had been in their current relationships for approximately two years. Average relationship satisfaction in the present sample was similar to other dating

couples (Hendrick, 1988; Hendrick, Dicke, & Hendrick, 1998), and indicated that participants were largely satisfied in their relationships. Baseline IOS values for the participants' relationships were similar to those of other young adults and reflected closeness (Mashek, Cannaday, & Tangney, 2007; Weidler & Clark, 2011), and the average value of conflict-specific IOS indicated that participants generally viewed relationship-specific conflict resolution as shared. Approximately half of the participants were currently in long-distance relationships at the time of the study. Long-distance relationships are common, with estimates varying between 25-50% of romantic relationships being long-distance relationships among college students, and are most common among first-year students, who represent a large proportion of the UCLA Psychology Department Subject Pool (Aylor, 2003; Stephen, 1986). Studies of geographically close and long-distance dating relationships reveal similarities in relationship satisfaction and quality and no significant differences in rates of dissolution (Dargie, Blair, Goldfinger, & Pukall, 2015; Guldner & Swensen, 1995; Kelmer, Rhoades, Stanley, & Markman, 2013; Stafford & Merolla, 2007; Stafford & Reske, 1990).

Effects of Experimental Condition on Within-Session Primary Outcomes

To our knowledge, no previous literature has examined the effects of induced communal appraisal and coping intentions on psychosocial and relational outcomes. Previous research in samples of healthy adults (Agnew et al., 1998; Seider et al., 2009) and adults with chronic illnesses (Helgeson et al., 2016; Robbins et al., 2013; Rohrbaugh et al., 2008) suggests a link between communal coping (as reflected by we-talk) and relationship satisfaction, commitment, and quality. In the present study, however, there was no significant effect of experimental condition on global or state relationship satisfaction. Theories of communal coping and cognitive interdependence suggest that relationship satisfaction and commitment may actually precede

communal appraisals (Agnew et al., 1998; Helgeson et al., 2018), and that the association is bidirectional with greater commitment and satisfaction leading to greater interdependence and collaboration.

All previous work examining we-talk and relationship quality was correlational and cross-sectional in design, making temporal precedence of either factor impossible to determine. Findings from the present study may indicate that relationship satisfaction is a predictor of communal appraisals as opposed to a consequence of it. In our sample, baseline relationship satisfaction and general relationship interdependence ($r = 0.336, p < 0.001$) and conflict-specific interdependence ($r = 0.471, p < 0.001$) were positively correlated. Although cross-sectional, these findings suggest a link between cognitive interdependence and relationship satisfaction. In addition, at study entry, the participants in the present study were highly satisfied (M at baseline = 4.29, on a scale that ranged from 1 = *extremely unsatisfied* to 5 = *extremely satisfied*). While levels of relationship satisfaction in the present study were similar to other dating couples (Hendrick et al., 1998), the high baseline levels may have made it difficult for the coping induction to have a salubrious effect on relationship satisfaction.

However, there was a statistically significant effect of experimental condition on change in state partner-directed negative affect from Session 1 pre-induction to Session 2 post-induction, with greater decreases in state partner-directed negative affect for participants in the Communal Coping condition than participants in the Non-Communal Partner condition. Negative partner-directed affect involved emotions such as frustration, anger, and annoyance. These emotions may represent a milder form of relationship dissatisfaction which was influenced by the manipulation, whereas the manipulation may not have been sufficiently strong to alter state relationship satisfaction.

Processing the conflict as shared in the Communal Coping condition may have led to reduced partner-directed negative emotions because both the participant and their partner's responsibility for the conflict was emphasized, whereas for participants in the Non-Communal Partner condition, the partner's responsibility for the conflict was highlighted. Indeed, attributions for behavior are associated with relationship satisfaction and quality (Bradbury & Fincham, 1990). In a cross-sectional study of married couples, partner blame for relationship conflict was associated with lower relationship satisfaction (Madden & Janoff-Bulman, 1981). In an observational study, married couples who used greater first- and second-person singular pronouns (i.e., I- and you-talk) were less satisfied than participants who used greater third-person plural pronouns (Sillars, Shellen, McIntosh, & Pomegranate, 1997). The present study's inconsistent findings of the effects of communal appraisal and coping intentions on relational outcomes highlights the need for future research to examine in greater detail the differential effects of communal coping as well as further refinement of the experimental paradigm.

Contrary to hypotheses, condition did not significantly alter heart rate reactivity or recovery within the sessions. All participants experienced increases in heart rate while writing about a conflict in their relationships, which is a normative physiological response to exposure to relationship conflict (Nealey-Moore, Smith, Uchino, Hawkins, & Olson-Cerny, 2007), and all participants experienced recovery when writing about a neutral topic (i.e., describing the laboratory room) after the conflict essay. During conflict discussions, healthy adult couples who used greater we-talk had lower heart reactivity (Seider et al., 2009). In the present study, participants wrote about the most stressful conflict in their current relationship and did not engage in a discussion with their partners. Pronoun use varies when speaking as compared to writing, with personal pronoun use being more common when speaking (Chafe & Tannen,

1987). These factors underscore the importance of examining not only language but also the context in which it occurs. The context in which pronoun use occurs, whether speaking or writing, and whether it is in discussion with another person or in a personal written reflection, may influence physiological reactivity. Future investigations would benefit from increased attention to the context in which language occurs and disentangling the effects of first-person plural pronoun use in different contexts.

Effects of Experimental Condition on Within-Session Secondary Outcomes

Contrary to hypotheses, group assignment did not predict changes in interpersonal approach-oriented behavior between Session 1 and 2, or between baseline and follow-up. While a greater amount of desired time together may reflect an approach-oriented relationship goal (i.e., the participant may be motivated to spend time together in pursuit of positive relationship experiences like fun and growth), it may also reflect an avoidance-oriented goal (i.e., the participant may be focused on avoiding negative experiences such as infidelity or abandonment). Assessing the underlying motivations for relationship-specific behaviors (Impett et al., 2010) would allow for a clearer understanding of the effects (or lack thereof) of communal coping on interpersonal approach-oriented behaviors.

Effects of Experimental Condition on One-Week Follow-up Primary Outcomes

There was a significant effect of experimental condition on the trajectory of physical symptoms from baseline to follow-up. However, the pattern of results was inconsistent with our hypotheses, such that participants in the Communal Coping condition had increases in physical symptoms, whereas participants in the Non-Communal Partner condition had decreases in self-reported physical symptoms. This finding was inconsistent with previous research on communal coping among patients with heart failure and their spouses (Rohrbaugh et al., 2008); however,

there are notable differences between the present study and the study upon which we based our hypothesis. In the present study, the sample was young adults in primarily dating relationships, whereas the Rohrbaugh and colleagues' (2008) sample was older adults in long-term, committed relationships diagnosed with a chronic illness. There is some evidence to suggest that age may moderate the association between communal coping and relationship satisfaction, with the strongest association between we-talk and relationship satisfaction in older women (Seider et al., 2009).

Moreover, in the present study, the stressor was a relationship conflict as opposed to a chronic illness. For couples where one partner has a chronic illness, viewing the illness as shared may have led to spousal support efforts that reduced the patient's physical symptoms (e.g., reminding a spouse to take his/her medication). In contrast, viewing the conflict as shared may have encouraged participants in the present study to take on the burden of a conflict that they previously viewed as their partner's responsibility, in turn increasing their own physical symptoms, despite potentially benefiting their partner's wellbeing. Future research would benefit from examining the consequences of induced communal coping for both members of the couple.

Effects of Experimental Condition on One-Week Follow-up Secondary Outcomes

There was no significant effect of experimental condition on change in sleep quality from baseline to follow-up. The complex association between sleep quality and close relationships involves biopsychosocial pathways and is likely bi-directional and reciprocal, with greater sleep problems causing greater conflict and vice versa (Troxel, Robles, Hall, & Buysse, 2007). Moreover, many factors may influence sleep disturbance in an undergraduate sample (e.g., academic requirements, living conditions, changes in daily schedules) (Kenney, LaBrie, Hummer, & Pham, 2012) that were not a target of the present study. Interventions to improve

sleep quality in this population likely would require a multi-pronged approach to address not only relationship conflict and the concomitant stress but other reasons for sleep disturbance.

Interactions between Experimental Condition and Dispositional Communion and Attitudes toward Emotional Expression

Dispositional communion and attitudes toward emotional expression were examined as moderators of the experimental conditions to determine for whom the writing conditions were most beneficial. Consistent with hypotheses, dispositional communion did moderate the effect of experimental condition on change in perceived stress, state perceived stress, and state individual negative affect. Communion involves cooperation, building and maintaining attachments, and an emphasis on the importance of connections (Bakan, 1966; Helgeson, 1994). Taken collectively, the findings from the current study suggest the importance of the match between participants' baseline levels of communion and experimentally-induced communal appraisal and coping. Participants with greater dispositional levels of communion experienced greater declines in perceived stress and individual negative affect when assigned to the Communal Coping condition than participants assigned to one of the Non-Communal conditions.

Participants with greater dispositional communion may have more experience and comfort with engaging in communal appraisals and collaboration, which allowed them to receive the most benefit from the Communal Coping condition because they had existing structures in place to accommodate this way of approach conflicts. Indeed, among college students, communion is associated with greater mobilization of support (Burda Jr, Vaux, & Schill, 1984), greater likelihood of seeking professional support for psychological struggles (Johnson, 1988) and among graduate students, greater requests for support during stressful experiences (Butler, Giordano, & Neren, 1985).

Attitudes toward emotional expression moderated the effect of experimental condition on change in alcohol use from baseline to follow-up. This effect was largely driven by increases in alcohol use between baseline and follow-up by participants with more positive attitudes toward emotional expression in the Non-Communal Partner condition. In the Non-Communal Partner condition, participants were instructed to conceptualize the most stressful conflict in their relationship as primarily their partner's responsibility, think of ways that their partner has or could cope with the conflict, and to use third-person singular pronouns. A consequence of the condition instructions may have been restricting the participant's own emotional disclosures regarding the conflict. Lack of acceptance of emotions is associated with greater alcohol use among college students (Dvorak et al., 2014).

In Session 1, attitudes toward emotional expression moderated the effect of experimental condition on change in partner-directed negative affect. Specifically, within participants with more negative attitudes toward emotional expression, participants in the CC condition experienced a decrease in partner-directed negative affect, whereas NC-Own participants increased in partner-directed negative affect from Session 1 pre-induction to post-induction. Participants who have more negative attitudes toward emotional expression may prioritize group harmony over individual emotional expression (Winterheld, 2017), which in turn allows them to benefit most from the communal coping condition because it emphasizes a shared appraisal and collaboration as opposed to personal responsibility.

Strengths, Limitations, and Directions for Future Study

Strengths of the present study include the novel methodology designed to provide the first experimental test of whether manipulated communal appraisal and coping intentions effected relevant psychosocial and physiological outcomes. In addition, multiple indicators of

stress were examined as outcomes. With regard to limitations, caution must be exercised when generalizing the results of the present study. The sample of young adult couples likely differs in terms of commitment and relationship duration from older adults in long-term partnered relationships. However, the basic mechanisms of communal coping should work similarly across various populations and likely be stronger in older individuals with more established relationships, making this study a more stringent test of the hypotheses (Berg & Upchurch, 2007). Caution must also be exercised when extending the results of the present study to a variety of stressors. A relationship conflict was chosen as the stressor in this experiment because of the predicted ease with which young couples could adopt a communal outlook in this domain. Furthermore, interpersonal conflicts are a potent source of stress in a variety of populations (Brooks & Dunkel Schetter, 2011) with consequences for health (Kiecolt-Glaser et al., 2010; Robles et al., 2014). However, more research is needed to understand the effect of induced communal appraisal and coping intentions on a broad range of stressors (e.g., chronic illness, financial stress, caregiving).

Second, this study only included one member of the couple. The intent of the present study was not to serve as an intervention to improve relationships and psychological well-being but rather to provide an initial experimental test of manipulated communal appraisal and coping intentions on psychosocial, physical, and behavioral health outcomes. The effect of manipulated communal coping on the outcomes of interest at follow-up may be stronger if both members of the couple were to receive the appraisal and coping induction. A direction for future inquiry involves examining the effects of concordance between the appraisal and coping inductions on relevant outcomes for both members of the couple.

The proposed manipulation of communal appraisal and coping intentions does not separate the effect of communal appraisal and coping behaviors on the relevant psychosocial, physiological, and behavioral outcomes. The instructions for the writing task reflect the construct of communal coping and thus directed participants both to engage in a communal appraisal and to generate ways that they have or could have coped with the conflict collaboratively. Coding participants' writing may allow for examination of collaborative coping attempts participants undertook or planned to undertake, but it would not allow for a test of communal appraisal against collaborative coping. Future research to disentangle the role of communal appraisal and coping could be important in determining the mechanisms of communal coping, although these processes are likely to co-occur in a naturalistic setting.

The significant effects of the manipulation were largely within-session, with the exception of effects on perceived stress and physical symptoms at follow-up. These findings suggest that the coping manipulation may have been of insufficient strength to influence more distal outcomes. Manipulation checks revealed that while the experimental paradigm was able to influence conflict appraisal in the expected direction, there was no effect on coping intentions. A strengthened coping induction may lead to more lasting effects. Specifically, future research may incorporate a discussion with both members of the couple to provide an opportunity for participants to engage in collaboration directly following a writing session when the effects of induced appraisal may be the strongest.

Taken collectively, the findings suggest that experimentally-induced communal appraisal and coping intentions may benefit individuals experiencing relationship conflicts, particularly by buffering against negative partner-directed affect, individual negative affect, and perceived stress. The match between dispositional communion and experimental condition was of

importance as well, suggesting that the experimental manipulation conferred the most benefit upon individuals with greater dispositional communion. Individuals with greater dispositional communion may have more comfort and practice with adopting a communal orientation when experiencing stressful events and so took to the manipulation more easily. Effects of the manipulation were not entirely positive, however, in that induced communal coping produced an increase in physical symptoms. Further research is needed to examine the potential costs of coping communally as adopting a communal orientation may lead to deleterious effects for one partner if they had previously regarded a stressor as exclusively their partner's responsibility. With additional research on how to most effectively manipulate communal coping and to explore the potential benefits and costs, inducing communal coping through writing and discussion could develop into a useful, brief intervention for individuals experiencing relationship conflicts and other stressors. In addition, understanding for whom communal coping confers the most benefit and the mechanisms through which it effects change will aid in development of effective interventions and contribute to the existing theoretical work on communal coping. Incorporation of the social context into coping interventions could benefit couples experiencing relationship conflict and other stressors.

Figure 1
Timeline of study procedures

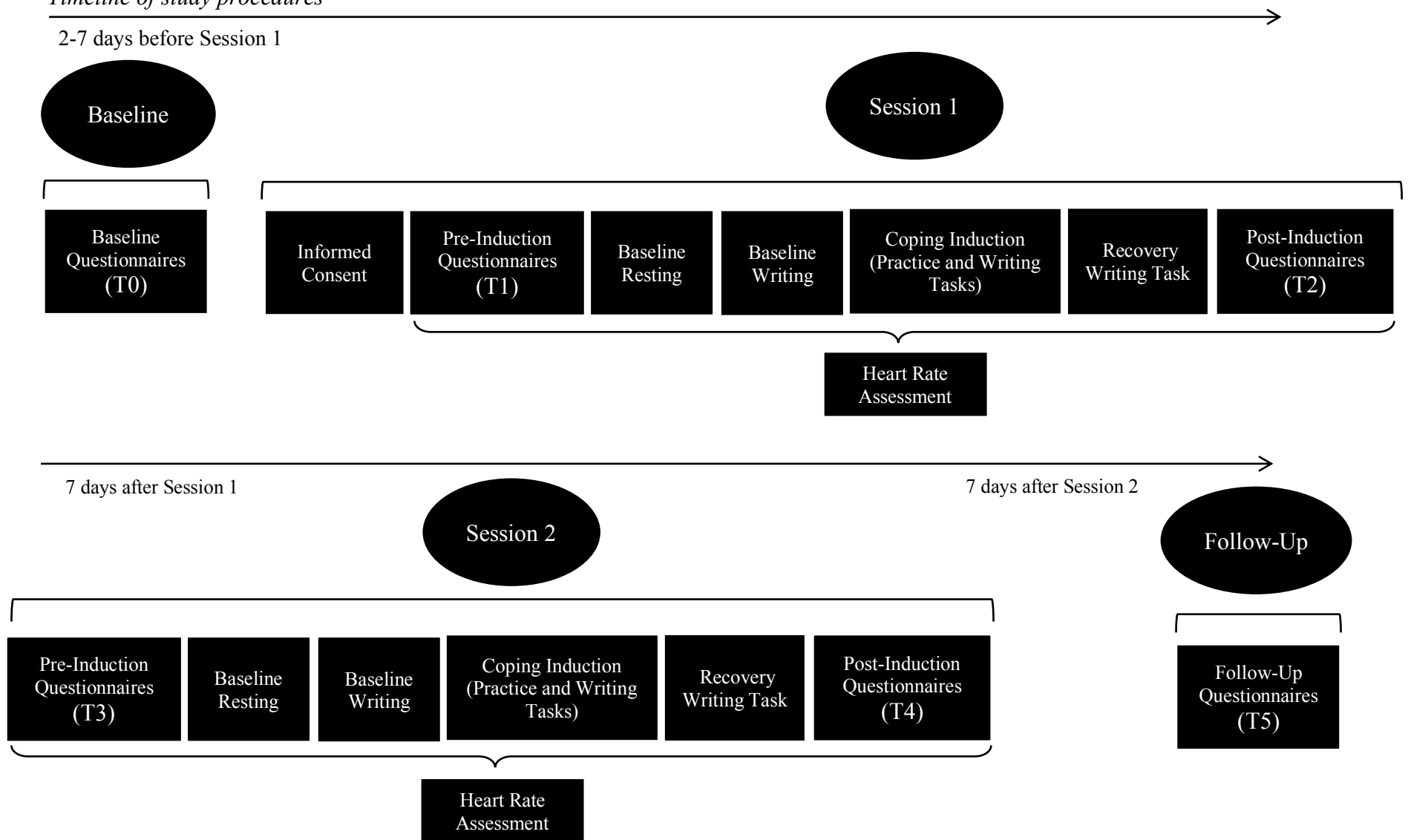


Table 1
Instructions for writing tasks

Condition	Instructions
CC	Conflict is a common part of all relationships. Some conflicts are understood to be shared (i.e., “our problem”). What I would like you to write about is the current conflict or disagreement in your relationship. During this task please think about the conflict as “our problem” (you and your partner’s) when writing about it. As you just did in the previous task, please use the pronouns <u>we</u> , <u>us</u> , <u>our</u> , and <u>ours</u> in your essay as often as possible. Consider efforts you took with your partner to cope with the problem or efforts you and your partner could take to cope with the problem. The only rule we have is that you write continuously for the entire time. If you run out of things to say, just repeat what you have already written. Don’t worry about grammar, spelling, or sentence structure. Don’t worry about erasing or crossing things out.
NC-Own	Conflict is a common part of all relationships. Some conflicts are understood to be the responsibility of one partner (i.e., “my problem”). What I would like you to write about is the current conflict or disagreement in your relationship. During this task please think about the conflict as “my problem” (solely yours) when writing about it. As you just did in the previous task, please use the pronouns <u>I</u> , <u>me</u> , <u>my</u> , and <u>mine</u> in your essay as often as possible. Consider efforts you took to cope with the problem or efforts you could take to cope with the problem. The only rule...[Repeat identical instructions]
NC-Partner	Conflict is a common part of all relationships. Some conflicts are understood to be the responsibility of one partner (i.e., “his/her problem”). What I would like you to write about is the current conflict or disagreement in your relationship. During this task please think about the conflict as “his/her problem” (solely your partner’s problem) when writing about it. As you just did in the previous task, please use the pronouns <u>he/she</u> , <u>him/her</u> , and <u>his/hers</u> in your essay as often as possible. Consider efforts your partner has taken to cope with the problem or efforts your partner could take to cope with the problem. The only rule...[Repeat identical instructions]
Baseline and Recovery (All participants)	What I would like you to write about is a description of the laboratory room where you are sitting. No detail is too small or too large. You may want to describe the furniture or the equipment you see, the sounds you hear, or the location of the room on campus. The only rule...[Repeat identical instructions]

Table 2

Instructions for practice writing tasks

Condition	Sentence Stems
CC	(1) We have been together for _____ months. (2) In general, we like to _____. (3) In general, we don't like to _____. (4) On weekends we usually _____. (5) On weekdays we usually _____. (6) We often talk about _____. (7) In the past week we have _____. (8) Next week we probably will _____
NC-Own	(1) I have been together with my partner for _____ months. (2) In general, I like to _____. (3) In general, I don't like to _____. (4) On weekends I usually _____. (5) On weekdays I usually _____. (6) I often talk about _____. (7) In the last week I have _____. (8) Next week I probably will _____
NC-Partner	(1) My partner and I have been together for _____ months. (2) In general, he/she likes to _____. (3) In general, he doesn't like to _____. (4) On weekends he/she usually _____. (5) On weekdays he/she usually _____. (6) He/she often talks about _____. (7) In the last week he/she has _____. (8) Next week he/she probably will _____

Table 3
Participant and partner demographic characteristics

	Total Sample (n = 133) M (SD) % (n)	CC (n = 47) M (SD) % (n)	NC-Partner (n = 42) M (SD) % (n)	NC-Own (n = 44) M (SD) % (n)
Participant age	20.39 (4.24)	19.67 (1.34)	20.18 (3.85)	21.38 (6.19)
Participant gender				
Female	84.1% (111)	78.7% (37)	85.7% (36)	84.1% (37)
Participant race/ethnicity				
Asian	37.4% (46)	45.5 % (20)	23.7 % (9)	41.5 % (17)
Latinx	27.6 % (34)	31.8 % (14)	39.5 % (15)	11.4 % (5)
White	23.6 % (29)	18.2 % (8)	16.7 % (7)	34.1 % (14)
African American	4.1 % (5)	2.3 % (1)	2.6 % (1)	6.8 % (3)
Bi- or multi-racial	7.3 % (9)	2.3 % (1)	15.8 % (6)	2.3 % (1)
Participant first language				
English	87.3% (110)	86.7 % (39)	94.7 % (36)	81.4 % (35)
Mandarin	6.0% (8)	8.5% (4)	2.4% (1)	6.8% (3)
Spanish	2.3% (3)	2.1% (1)	2.4% (1)	2.3% (1)
Portuguese	1.5% (2)	0.0 % (0)	0.0 % (0)	4.5% (2)
Cantonese	0.8% (1)	0.0 % (0)	0.0 % (0)	2.3% (1)
Korean	0.8% (1)	2.1% (1)	0.0 % (0)	0.0 % (0)
Russian	0.8% (1)	0.0 % (0)	0.0 % (0)	2.3% (1)
Partner age	21.40 (5.86)	20.98 (4.05)	20.78 (4.08)	22.44 (8.40)
Partner gender				
Female	15.9% (21)	19.1% (9)	14.3% (6)	13.6% (6)
Partner race/ethnicity				
Asian	30.3% (40)	44.7 % (21)	22.0 % (9)	22.7 % (10)
Latinx	23.5 % (31)	29.8 % (14)	29.3 % (12)	11.4 % (5)
White	31.1 % (41)	19.1 % (9)	31.7 % (13)	43.2 % (19)
African American	3.8 % (5)	0.0 % (0)	4.9 % (2)	6.8 % (3)
Native American	0.8% (1)	2.1% (1)	0.0 % (0)	0.0 % (0)
Bi- or multi-racial	10.6 % (14)	4.3 % (2)	15.8 % (5)	15.9 % (7)

Table 4

Self-reported relationship characteristics

	Total Sample (N = 133) M (SD) % (n)	CC (n = 47) M (SD) % (n)	NC-Partner (n = 42) M (SD) % (n)	NC-Own (n = 44) M (SD) % (n)
Relationship duration (months)	25.17 (21.15)	21.87 (17.16)	26.00 (22.61)	27.93 (23.49)
Baseline relationship satisfaction	30.03 (3.77)	29.66 (3.80)	30.41 (3.81)	30.07 (3.74)
Baseline relationship IOS	5.20 (1.14)	5.02 (1.05)	5.34 (1.09)	5.25 (1.28)
Baseline conflict IOS	5.02 (1.37)	4.96 (1.43)	5.27 (1.29)	4.86 (1.39)
Nights/week	2.29 (2.42)	2.11 (2.28)	2.46 (2.49)	2.32 (2.54)
Sexual orientation				
Heterosexual	95.5% (127)	91.5% (43)	97.6% (41)	97.7% (43)
Marital status				
Married	3.8 % (5)	0.0 % (0)	4.8 % (2)	6.8 % (3)
Cohabitation status				
Cohabiting	11.4% (15)	10.6 % (5)	12.2 % (5)	11.4 % (5)
Geographical distance				
Long distance	44.7 % (59)	46.8 % (22)	43.9 % (18)	43.2 % (19)
Previous break-up				
0	66.9% (89)	68.1% (32)	68.3% (29)	63.6% (28)
≥1	33.3 % (44)	31.9 % (15)	31.7 % (13)	36.4 % (16)
Children				
0	98.5% (131)	100% (47)	97.6% (41)	97.7% (43)
≥1	1.5% (2)	0.0 % (0)	2.4 % (1)	2.3 % (1)

Note. IOS = Inclusion of Other in Self Scale.

Table 5

Pronoun use in Session 1 and Session 2 coping induction essays

Study Variables	Time point	Overall Sample N = 133 M (SD)	CC N = 47 M (SD)	NC-P N = 42 M (SD)	NC-O N = 44 M (SD)
First-person plural pronouns	Session 1	3.50 (3.50)	7.78 (2.18)	1.18 (0.86)	1.17 (0.96)
	Session 2	3.29 (3.22)	7.04 (2.45)	1.30 (1.10)	1.25 (0.99)
First-person singular pronouns	Session 1	6.66 (3.90)	2.96 (2.29)	6.77 (2.50)	10.51 (2.24)
	Session 2	6.72 (3.94)	3.39 (2.67)	6.20 (2.63)	10.70 (2.18)
Third-person singular pronouns	Session 1	4.49 (3.49)	1.92 (1.72)	8.62 (2.12)	3.22 (2.05)
	Session 2	4.42 (3.75)	1.87 (1.96)	8.69 (2.96)	3.01 (1.92)
Ratio first-person plural/first-person singular	Session 1	2.52 (8.00)	7.12 (12.62)	0.22 (0.22)	0.12 (0.10)
	Session 2	3.87 (13.52)	10.78 (21.46)	0.29 (0.36)	0.13 (0.11)
Ratio first person plural/third-person singular	Session 1	2.75 (6.76)	7.60 (10.15)	0.15 (0.12)	0.48 (0.55)
	Session 2	4.04 (14.82)	11.68 (24.96)	0.19 (0.19)	0.88 (1.36)

Table 6

Excerpts characteristic of essays from each condition

Communal Appraisal and Coping Intentions

1. "Our main conflict revolves around the fact that I am not Jewish and his family has strict rules on dating non-Jewish people. From my understanding of the Jewish religion, one is not Jewish unless their mother is Jewish and so while it is somewhat accepted for a Jewish female to marry a non-Jewish male, the counter is not accepted at all. Hence, me being non-Jewish is a big deal. We have had this problem for the last 6 months when we decided to take our relationship more seriously. We usually get along very well and have very minimal conflicts but this issue has been a burden in our relationship because he feels like it's a bad idea for me to be around his parents. However, when he says this I interpret this as him being ashamed of us. We have tried to make compromises in the past because I felt as if I did not feel comfortable being a secret."
2. "We have had this problem since the very beginning of our relationship. I like to go to the gym in the morning so I wake up very early and go to bed very early, but my partner wants me to stay in bed with him so that we can have breakfast together and share more time together. But to me, running in the morning has been my daily routine. We tried to figure this problem out. We first tried to both go to bed early so that he can come to the gym with me in the morning. However, he just couldn't fall asleep that early."
3. "One disagreement that tends to reappear in our relationship every few months or so is our lack of intimacy. Although we have discussed this issue numerous times, no significant change seems to occur after each discussion because we both seem to have difficulty looking from each other's point of view after that discussion has ended... We both agree that being intimate is not the most important aspect of our relationship, but we want to make one another as comfortable and happy as possible. Recently, we have been trying to work through this conflict more efficiently together, but we are rarely able to spend time alone with one another."

Non-Communal Appraisal and Coping Intentions – Own Problem

1. "My current relationship conflict is that I'm struggling to be 100 percent committed. My problem is not one of faithfulness to my partner, but rather giving 100 percent. Often times, I don't prioritize his wants, needs, or feelings. He says that he would drop everything for me, but would I do the same for him? I think commitment is a scary thing, because my issue is that I want to predict too far into the future. I want to picture us getting married or having kids, but when I honestly think about that I don't know how to answer it."
2. "My issue is that I expect a lot of visible displays of affection and a lot of verbal affirmation. This creates problems because then I am unable to see consideration and love in other forms. Because of that, I then tend to blame my partner for not emoting in the ways that I understand. The effort I have taken to amend this is to have frank conversations with my partner about how I feel and why. I also have and must continue trying to see efforts that are put in different ways."
3. "The current conflict that is plaguing my relationship is that we do not communicate as much as we should be. This is my fault as I am very bad at articulating my feelings and whenever I try to talk about them I start crying with no reason. This stems from me never talking about my feelings to anyone growing up due to the assumption that that was something you do not talk about. Therefore when entering a relationship, telling another person about my feelings was completely foreign to me. I was not used to having to communicate and therefore could not accurately tell my partner what was bothering me. Though I have gotten better at it, I still tend to bottle up my feelings in fear of adding to my partner's already stressful life. Some ways I could help this is maybe first trying to articulate my feelings to my close friends. Because I know they will be my friends no matter what or how I act, in my mind it seems less risky."

Non-Communal Appraisal and Coping Intentions – Partner's Problem

1. "Over the past few months, he has been asking me to move in with him officially and just let my parents know that I am. Currently, I pay for an apartment with a couple of my old friends. Although I pay for that apartment, I do not actually reside there, as I spend every day and night in his studio apartment that he does not share with anyone else except myself. I love living with him and it's fun to do everything together but it sucks when my parents want to come by and visit and I have to pretend
-

that I live with in the apartment that I only merely pay for. Over time, he began making me feel more and more bad about wanting to spend time there and would get really upset and make me feel like I was being inconsiderate. I think that in reality, he is the one that was being inconsiderate because he did not realize that I have told him various times that as a Catholic Hispanic woman, I can't just move in and live with my boyfriend."

2. "A conflict that we have in our relationship is that I don't feel my partner plans very many things for me for special occasions because he isn't very romantic. I think that the root of this problem is that his parents were divorced, so he never really had examples set before him of people being romantic and doing things for each other. He gets very stressed out by me when I get emotional because of my expectations not being met... He has taken steps to fix this problem. He first has recognized that he isn't the most thoughtful person, and has apologized to me for it. He has taken extra time to look for restaurants that I would like on Yelp and small gifts that I would like..."
 3. "The current or most recent argument my partner and I have dealt with is his lack of communication. He often hides the way he feels from his family and I. He thinks that it is completely normal to not want to talk about the way he feels, but I believe that as his partner he should tell me the way he feels...he should trust me so that I can help him. He doesn't understand that his lack of communication can affect our relationship on the long run. He loves me I know that, he just has a really hard time opening up because as a child his parents wouldn't allow him to or would not ask him. I know he is working on this, but at times he just doesn't want to."
-

Table 7

Percentages of participants who wrote about each conflict topic (N = 133)

Conflict Topic	N (%)
Communication	38 (28.6)
Time Spent Together	18 (13.5)
Jealousy/Infidelity	18 (13.5)
Career/Academics	15 (11.3)
Demonstrations of Affection	9 (6.8)
Friendships/Social Activities Outside the Relationship	8 (6.0)
Family Relationships	6 (4.5)
Finances	5 (3.8)
Household Chores	3 (2.3)
Religious Values	3 (2.3)
Sex	3 (2.3)
Substance Use	3 (2.3)
Political Views	2 (1.5)
Food Choices	1 (0.7)
Child-rearing Practices	1 (0.7)

Table 8

Descriptive statistics for dependent and moderator variables across all assessments

	Time Point	Total Sample (N = 133) M (SD)	CC (n = 47) M (SD)	NC-Partner (n = 42) M (SD)	NC-Own (n = 44) M (SD)
Primary Outcomes					
Partner-Directed Negative Affect	Baseline	5.37 (2.38)	5.47 (2.29)	5.61 (2.82)	5.05 (2.03)
	Follow-Up	4.49 (2.16)	4.80 (2.57)	4.23 (1.62)	4.43 (2.15)
Individual Negative Affect	Baseline	18.62 (6.08)	19.16 (5.73)	18.92 (5.82)	17.79 (6.68)
	Follow-Up	17.20 (5.59)	16.95 (4.67)	17.22 (5.73)	17.43 (6.40)
State Partner-Directed Negative Affect	T1	4.33 (2.26)	4.40 (1.93)	4.24 (2.67)	4.34 (2.20)
	T2	4.49 (2.24)	4.26 (1.61)	4.86 (2.88)	4.39 (2.12)
	T3	4.02 (1.96)	3.59 (0.98)	4.49 (2.86)	4.05 (1.62)
	T4	4.08 (1.99)	3.71 (1.42)	4.61 (2.79)	3.95 (1.43)
State Individual Negative Affect	T1	14.60 (4.62)	15.62 (5.67)	14.28 (4.29)	13.81 (3.43)
	T2	14.22 (4.45)	13.93 (4.44)	14.43 (4.83)	14.34 (4.19)
	T3	13.38 (4.24)	13.08 (4.28)	13.92 (4.68)	13.19 (3.83)
	T4	13.30 (3.75)	12.58 (2.85)	13.79 (4.84)	13.56 (3.80)
Relationship Satisfaction	Baseline	30.03 (3.77)	29.66 (3.80)	30.41 (3.81)	30.07 (3.74)
	Follow-Up	27.05 (7.17)	26.82 (6.90)	26.96 (7.84)	27.38 (6.96)
State Relationship Satisfaction	T1	6.11 (1.35)	5.98 (1.39)	6.24 (1.41)	6.14 (1.25)
	T2	6.00 (1.44)	5.81 (1.58)	6.07 (1.55)	6.14 (1.13)
	T3	5.98 (1.43)	6.02 (1.27)	5.85 (1.77)	6.05 (1.25)
	T4	6.03 (1.35)	6.07 (1.14)	5.85 (1.78)	6.16 (1.07)
Physical Symptoms	Baseline	8.67 (7.94)	7.98 (6.51)	8.56 (7.20)	9.53 (9.88)
	Follow-Up	8.51 (7.21)	10.19 (7.80)	6.95 (6.52)	8.30 (7.04)
Alcohol Use	Baseline	1.42 (2.14)	1.32 (2.07)	1.32 (2.15)	1.60 (2.27)
	Follow-Up	1.47 (2.19)	1.41 (2.46)	1.56 (2.16)	1.43 (1.94)
Secondary Outcomes					
Perceived Stress	Baseline	17.64 (6.99)	17.77 (6.86)	17.27 (7.28)	17.84 (7.02)
	Follow-Up	15.65 (6.67)	15.45 (6.32)	14.56 (6.12)	16.88 (7.45)
State Perceived Stress	T1	5.09 (3.06)	5.45 (2.98)	4.52 (3.07)	5.25 (3.11)
	T2	5.42 (3.28)	5.53 (3.04)	4.95 (3.45)	5.75 (3.38)
	T3	4.94 (2.90)	4.59 (2.76)	4.66 (2.54)	5.58 (3.30)
	T4	4.81 (2.91)	4.51 (3.06)	4.81 (3.02)	5.12 (2.67)
Sleep Quality	Baseline	19.56 (5.88)	19.57 (5.15)	20.10 (5.84)	19.06 (6.70)
	Follow-Up	19.16 (5.95)	20.06 (6.80)	18.59 (6.28)	18.81 (4.65)
Interpersonal Approach-Oriented Behavior (Number of Hours)	T2	10.74 (8.54)	11.09 (9.02)	9.22 (7.74)	11.90 (8.73)
	T4	10.70 (8.80)	10.09 (8.75)	10.06 (8.31)	12.06 (9.39)
Interpersonal Approach-Oriented Behaviors					
Number of Days/Week	Follow-Up	2.91 (2.58)	2.78 (2.54)	3.27 (2.71)	2.69 (2.52)
Number of Nights/Week	Follow-Up	1.81 (2.37)	2.13 (2.44)	2.07 (2.51)	1.19 (2.08)
Moderators					
Dispositional Communion	Baseline	24.59 (3.80)	24.08 (4.06)	25.06 (3.64)	24.71 (3.69)

Attitudes Toward	Baseline	47.96 (12.67)	48.43 (13.26)	48.76 (13.05)	46.68 (11.93)
Emotional Expression					

Note. T1 = Session 1 pre-induction; T2 = Session 1 post-induction; T3 = Session 2 pre-induction; T4 = Session 2 post-induction.

Table 9

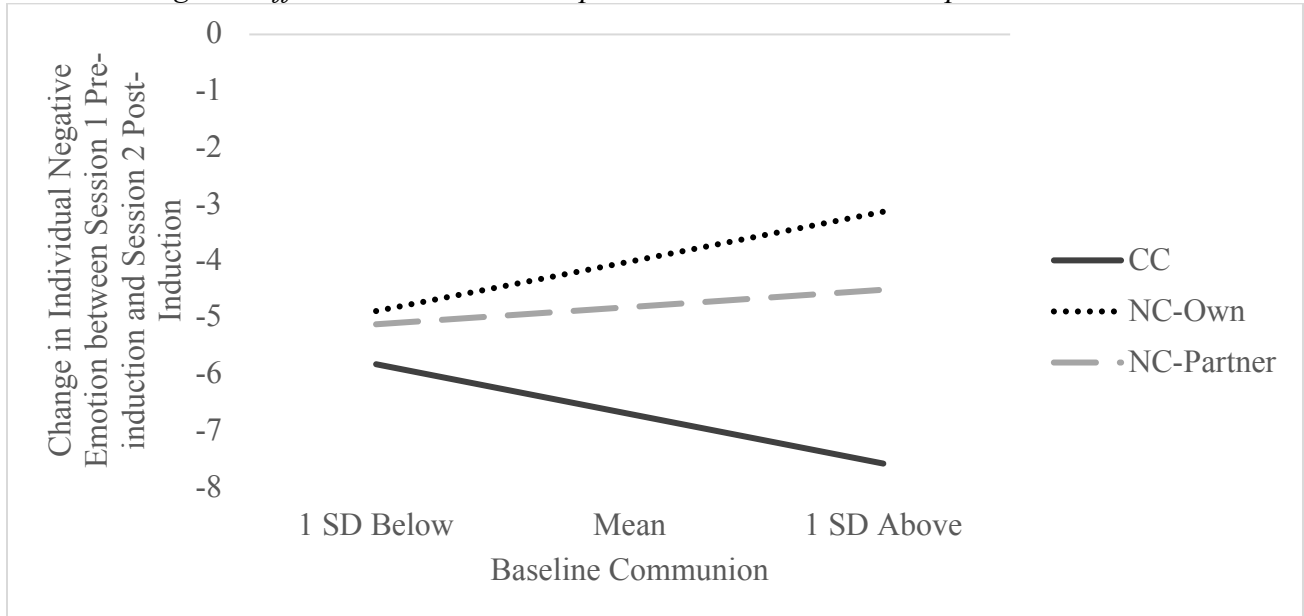
Bivariate correlations between psychosocial and behavioral outcomes at baseline

	1	2	3	4	5	6	7	8	9	10	11
Primary Outcomes											
1. Individual Negative Affect	-										
2. Partner-directed Negative Affect	0.529**	-									
3. Relationship Satisfaction	-0.334**	-0.537**	-								
4. Alcohol Use	-0.006	0.158	-0.003	-							
5. Physical Symptoms	0.241*	0.166	-0.108	0.045	-						
Secondary Outcomes											
6. Perceived Stress	0.690**	0.471**	-0.341**	0.136	0.434**	-					
7. Sleep	0.262**	0.115	0.077	-0.005	0.320**	0.340**	-				
Moderators											
8. Dispositional Communion	0.083	0.000	0.045	-0.019	0.201*	0.052	0.165	-			
9. Emotional Expression	0.088	0.153	-0.182	0.156	0.066	0.138	0.158	-0.315**	-		
Relationship Characteristics											
10. Baseline relationship IOS	-0.106	-0.070	0.336**	0.089	0.000	-0.058	0.102	0.314**	-0.193	-	
11. Baseline conflict IOS	-0.277**	-0.439**	0.471**	-0.060	-0.015	-0.324**	-0.102	0.056	-0.357**	0.289**	-

Note. ** 0.01, *** 0.001 (2-tailed)

Figure 2

The effect of the interaction between condition and dispositional communion on change in individual negative affect between Session 1 pre-induction and Session 2 post-induction



Note. Change scores were used for illustrative purposes. Negative scores indicate greater negative affect at Session 1 pre-induction than Session 2 post-induction. In analyses, Session 1 pre-induction individual negative emotion was included as a covariate. Analyses controlled for race/ethnicity.

Table 10

The interaction between condition and baseline communion on change in individual negative affect between Session 1 pre-induction and Session 2 post-induction

Predictor	<i>r</i>	B	SE	<i>p</i>
Race				
Other ^a		-0.53	0.89	0.553
Asian ^a		-0.34	0.60	0.580
Latino ^a		0.39	0.71	0.581
T3 Individual Negative Affect	0.79**	0.64	0.06	< .001
Condition				
NC-Own ^b		1.43	0.59	0.016
NC-Partner ^b		0.78	0.62	0.223
Baseline Communion	0.15	-0.15	0.10	0.194
Interactions				
NC-Own x Baseline Communion		0.35	0.15	0.019
NC-Partner x Baseline Communion		0.27	0.16	0.083

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed); T3 = Session 2 pre-induction

Figure 3

The effect of the interaction between attitudes toward emotional expression and condition on change in partner-directed negative affect between Session 1 pre-induction and Session 1 post-induction



Note. Change scores were used for illustrative purposes. Negative scores indicate greater negative affect at Session 1 pre-induction than Session 1 post-induction. In analyses, Session 1 pre-induction partner-directed negative affect was included as a covariate. Analyses controlled for race/ethnicity.

Table 11

The effect of the interaction between attitudes toward emotional expression and condition on change in partner-directed negative affect between Session 1 pre-induction and Session 1 post-induction

Predictor	<i>r</i>	B	SE	<i>p</i>
Race				
Other ^a		0.607	0.540	0.264
Asian ^a		0.142	0.396	0.720
Latino ^a		-0.131	0.446	0.769
T1 Partner-Directed Negative Affect	0.769**	0.788	0.071	< 0.001
Condition				
NC-Own ^b		0.326	0.362	0.371
NC-Partner ^b		0.792	0.369	0.035
Emotional Expression	0.106	0.037	0.019	0.054
Interactions				
NC-Own x Emotional Expression		-0.074	0.029	0.012
NC-Partner x Emotional Expression		-0.030	0.028	0.286

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed); T1 = Session 1 pre-induction

Figure 4

Change in state partner-directed negative affect across Session 1 and Session 2 pre- and post-induction assessments for all experimental conditions

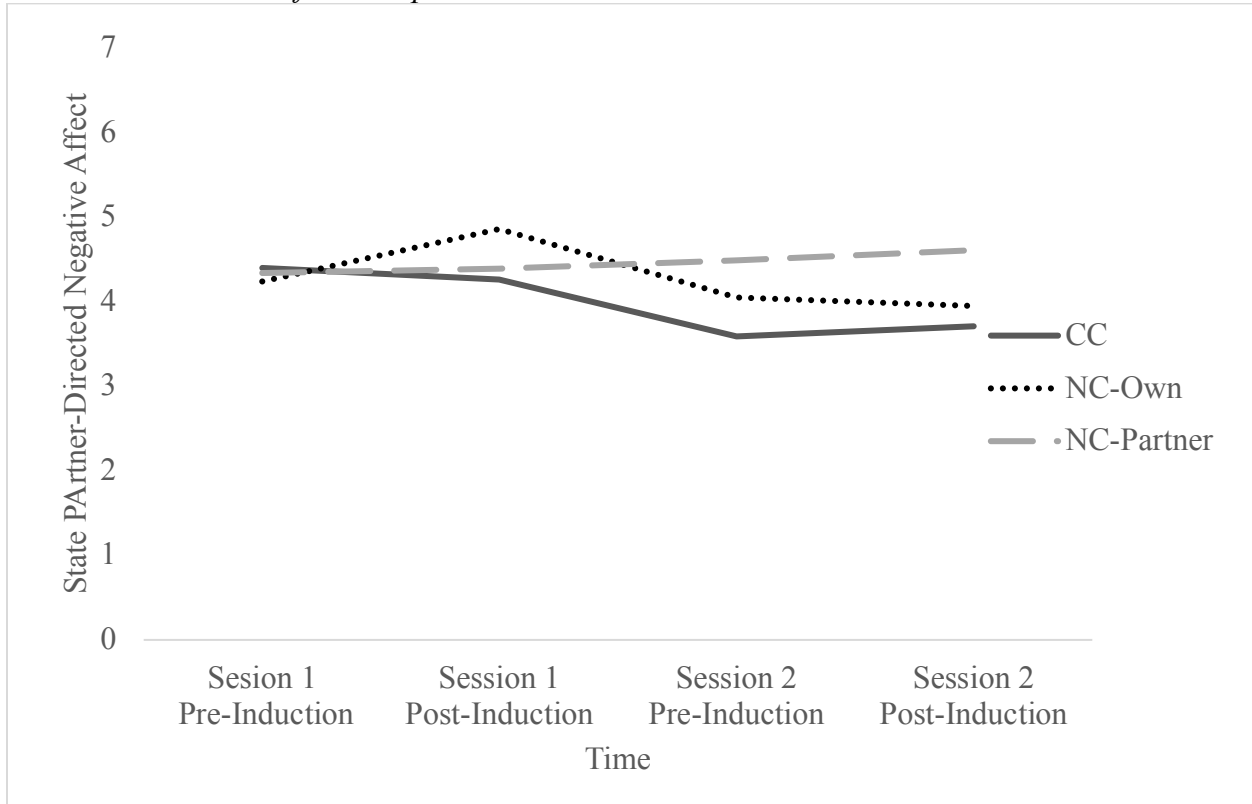


Table 12

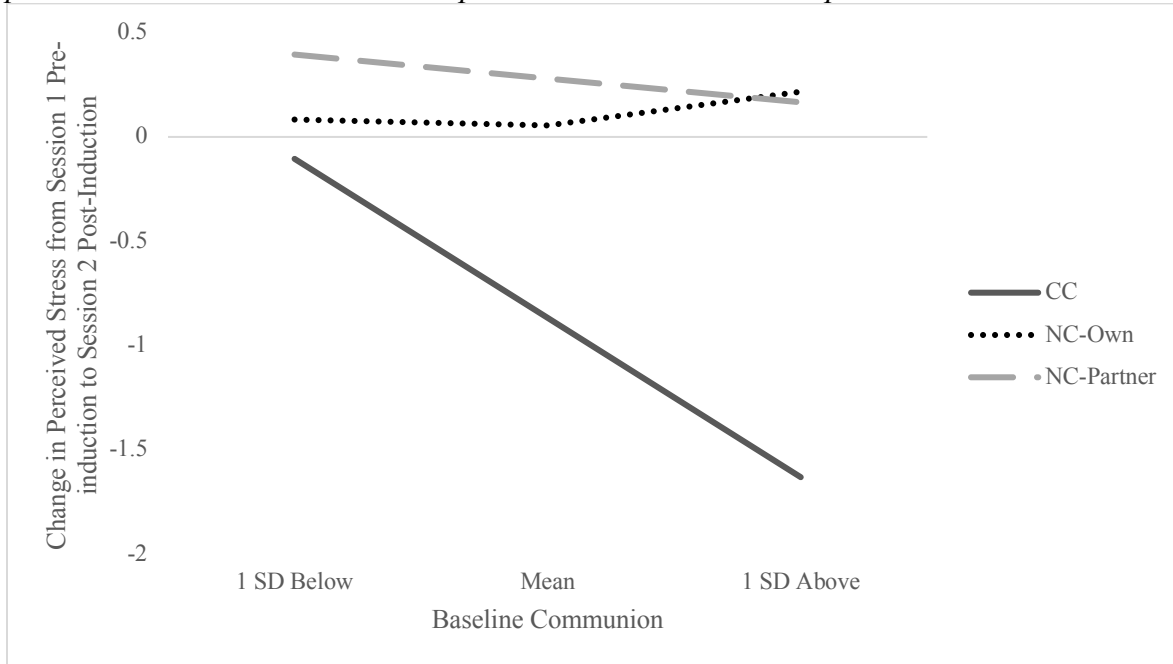
The effect of condition on change in partner-directed negative affect between Session 1 pre-induction and Session 2 post-induction

Predictor	<i>r</i>	B	SE	<i>p</i>
Race				
Other ^a		0.23	0.55	0.681
Asian ^a		-0.62	0.40	0.120
Latino ^a		-0.22	0.43	0.615
T1 Partner-Directed Negative Affect	0.58**	0.52	0.06	< 0.001
Condition				
NC-Own ^b		0.19	0.38	0.606
NC-Partner ^b		0.87	0.38	0.023

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed); Session 1 pre-induction

Figure 5

The effect of the interaction between condition and dispositional communion on change in perceived stress between Session 1 pre-induction and Session 2 post-induction



Note. Change scores were used for illustrative purposes. Negative scores indicate greater perceived stress at Session 1 pre-induction than Session 2 post-induction. In analyses, Session 1 pre-induction perceived stress was included as a covariate. Analyses controlled for race/ethnicity.

Table 13

The interaction between condition and dispositional communion on change in perceived stress between Session 1 pre-induction and Session 2 post-induction

Predictor	<i>r</i>	B	SE	<i>p</i>
Race/Ethnicity				
Other ^a		0.57	0.89	0.524
Asian ^a		0.34	0.62	0.578
Latino ^a		0.51	0.72	0.484
T1 Perceived Stress	0.59**	0.50	0.08	< 0.001
Condition				
NC-Own ^b		-6.76	3.70	0.071
NC-Partner ^b		-3.18	3.88	0.414
Baseline Communion	-0.12	-0.23	0.10	0.098
Interactions				
NC-Own x Baseline Communion		0.31	0.15	0.043
NC-Partner x Baseline Communion		0.15	0.16	0.339

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed)

Figure 6

Change in physical symptoms from baseline to follow-up for all experimental conditions

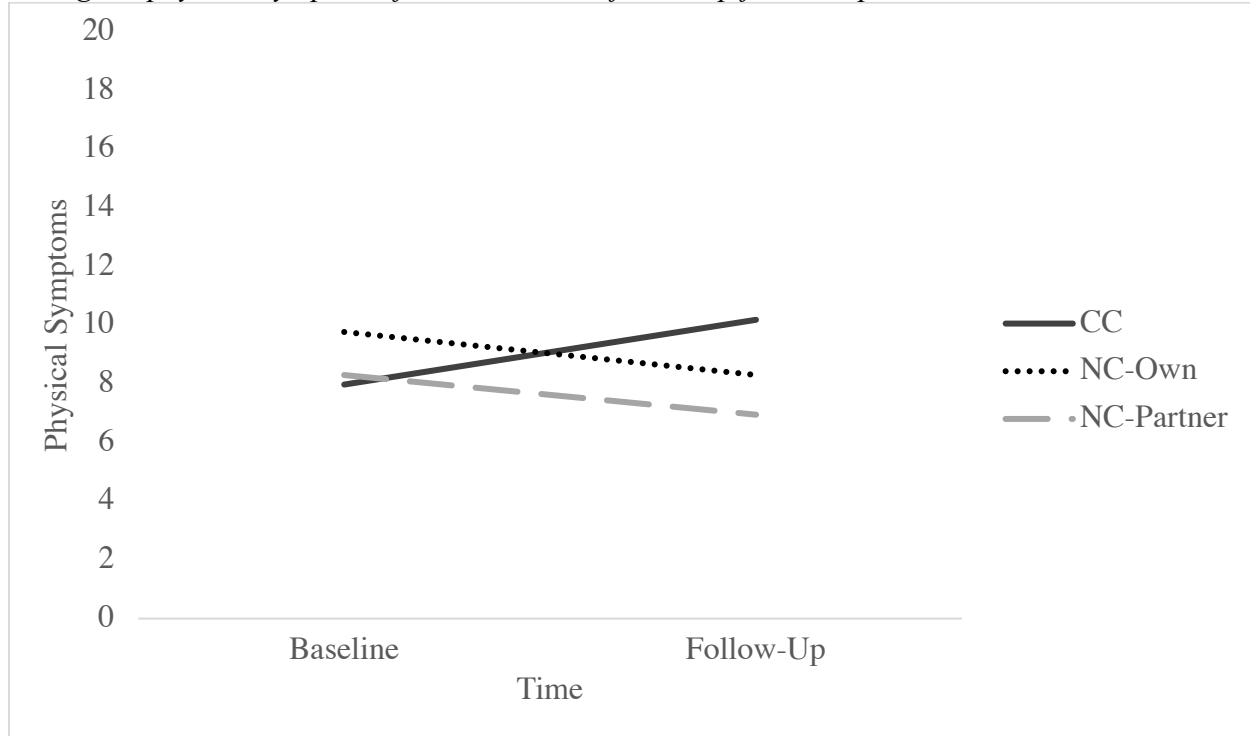


Table 14

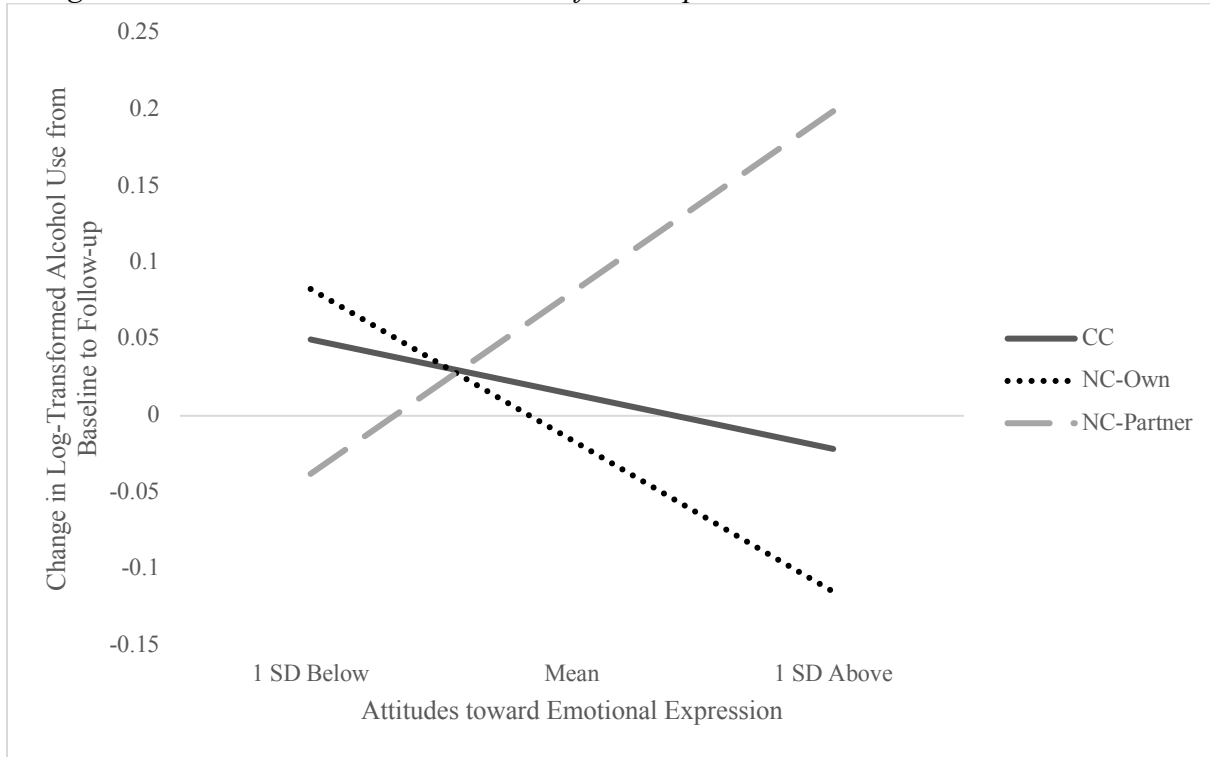
The effect of condition on change in physical symptoms between baseline and follow-up

Predictor	<i>r</i>	B	SE	<i>p</i>
Race/Ethnicity				
Other ^a		2.78	2.24	0.219
Asian ^a		-1.10	1.50	0.466
Latinx ^a		2.07	1.77	0.245
Baseline Physical Symptoms	0.56**	0.48	0.08	< 0.001
Condition				
NC-Own ^b		-2.35	1.46	0.112
NC-Partner ^b		-5.12	1.55	0.001

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed)

Figure 7

The effect of the interaction between condition and attitudes toward emotional expression on change in alcohol use between baseline and follow-up



Note. Change scores were used for illustrative purposes. Negative scores indicate greater alcohol use at Baseline than Follow-Up. In analyses, baseline alcohol use was included as a covariate. Analyses controlled for race/ethnicity.

Table 15

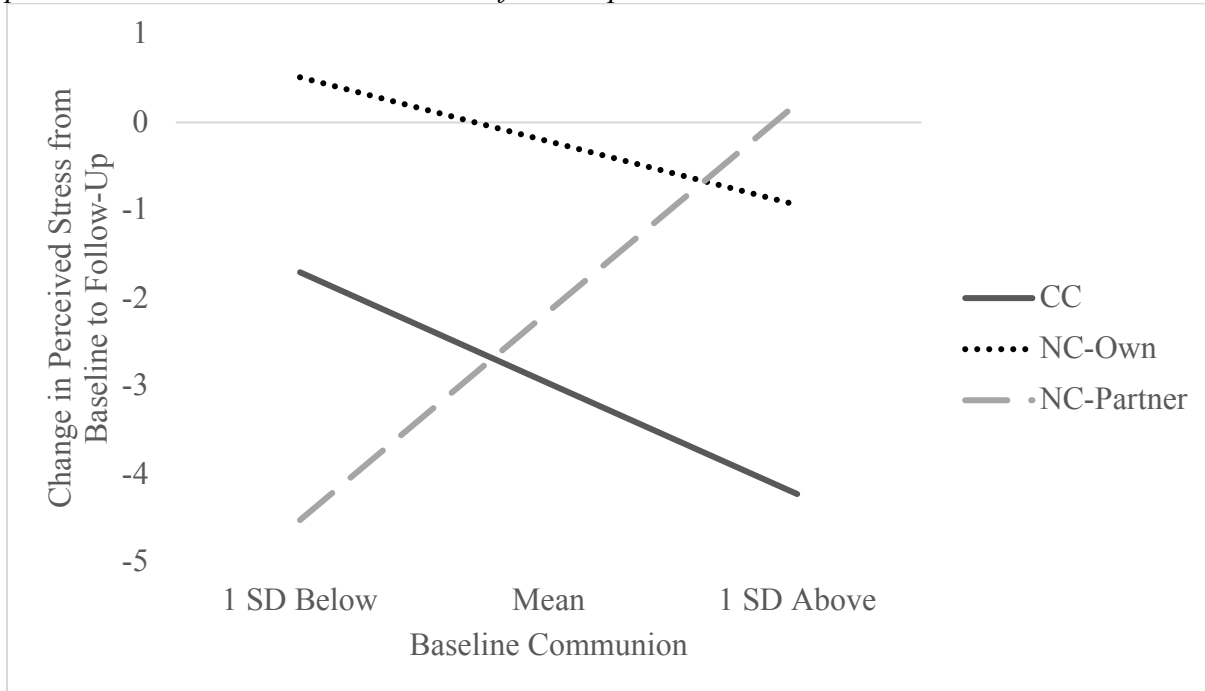
The interaction between condition and baseline attitudes toward emotional expression on change in alcohol use between baseline and follow-up

Predictor	<i>r</i>	B	SE	<i>p</i>
Race/Ethnicity				
Other ^a		-0.114	0.113	0.313
Asian ^a		-0.104	0.081	0.204
Latino ^a		-0.099	0.091	0.280
Baseline Alcohol Use		0.504	0.095	< 0.001
Condition				
NC-Own ^b		-0.014	0.075	0.851
NC-Partner ^b		0.077	0.076	0.315
Emotional Expression		-0.003	0.004	0.495
Interactions				
NC-Own x Emotional Expression		-0.001	0.006	0.881
NC-Partner x Emotional Expression		0.013	0.006	0.020

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed)

Figure 8

The effect of the interaction between condition and dispositional communion on change in perceived stress between baseline and follow-up



Note. Change scores were used for illustrative purposes. Negative scores indicate greater perceived stress at baseline than follow-up. In analyses, baseline perceived stress was included as a covariate. Analyses controlled for race/ethnicity.

Table 16

The interaction between condition and dispositional communion on change in perceived stress between baseline and follow-up

Predictor	<i>r</i>	B	SE	<i>p</i>
Race/Ethnicity				
Other ^a		0.08	2.06	0.968
Asian ^a		2.90	1.45	0.048
Latino ^a		1.94	1.72	0.263
Baseline Perceived Stress	0.55**	0.48	0.08	< 0.001
Condition				
NC-Own ^b		-7.84	8.56	0.362
NC-Partner ^b		-17.44	8.95	0.054
Baseline Communion	0.03	-0.33	0.23	0.146
Interactions				
NC-Own x Baseline Communion		0.45	0.35	0.197
NC-Partner x Baseline Communion		0.76	0.36	0.037

Note. ^a comparison group is white; ^b comparison group is CC; ** correlation is significant at the 0.01 level (2-tailed)

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