ASSOCIATIONS OF PERCEIVED PARTNER RESPONSIVENESS WITH AFFECT REGULATION AND WELL-BEING

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ASSOCIATIONS OF PERCEIVED PARTNER RESPONSIVENESS WITH AFFECT REGULATION AND WELL-BEING

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The present dissertation investigates the role of perceived partner responsiveness (PPR) — the extent to which individuals believe that their romantic partners understand, validate, and care for them — in affect regulation and well-being. The first paper examines mean levels and variability in affect as determinants of changes in perceived partner regard among African American couples (N = 250 individuals). Using dyadic analysis, we found that higher actor negative affect variability was associated with lower subsequent perceived partner regard. By contrast, actor positive affect variability was curvilinearly associated with perceived partner regard, with moderate levels of variability associated with higher subsequent perceived partner regard. The second paper investigates whether perceived partner responsiveness moderates the associations between daily events (positive and negative events) and daily affect (positive and negative affect). Using a nationally represented sample (N = 1313 participants), we found that experiencing daily negative events was associated with increases in daily negative affect and decreases in daily positive affect, whereas experiencing daily positive events was associated with decreases in daily negative affect and increases in daily positive affect. More importantly, perceived partner responsiveness predicted lower negative affective reactivity to negative events. That is individuals who perceived their partners as highly responsive experienced lower

increases in their negative affect from a non-stressor day to a day in which they experienced at least one stressor. The third paper focused on perceived partner responsiveness as a stress-buffering mechanism explaining the association between the unfair division of housework and well-being. By sampling individuals who were living with their relationship partner during COVID-19 (N = 355 participants from 27 different countries), we found that greater perceived partner responsiveness in wave one leads to the reduced perceived unfairness of housework division in wave two, which in turn predicted greater sleep quality and positive affect at wave three. Taken together, three papers contribute to our growing understanding of perceived partner responsiveness, affect regulation, and well-being.

BIOGRAPHICAL SKETCH

Betul Urganci received her Bachelor of Arts degree in Psychology and a minor degree in Communication and Design from Bilkent University, Turkey, in 2015. She then worked as a research fellow funded by the Scientific and Technological Research Council of Turkey and completed her Master of Arts degree in Psychology at Bilkent University in 2017. After joining Cornell University to pursue her graduate studies, she worked under the supervision of Prof. Anthony Ong at Human Health Labs. She received her M.A. degree in 2019 and her Ph.D. degree in 2022 in Developmental Psychology from Cornell University, with a minor in Cognitive Science. Her doctoral research focuses on close relationship development and changes over time, particularly on the roles of emotion regulation and partner responsiveness for relational and personal well-being. The College of Human Ecology partially funded her graduate studies under a Martha Foulk Fellowship.

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iSD = Intraindividual standard deviation

NA = Negative Affect

PA = Positive Affect

PPR = Perceived Partner Responsiveness

CHAPTER 1

Introduction

The importance of close relationships for health and well-being has been an interest of empirical research over the years. Supportive close relationships are linked to lower susceptibility to diseases (i.e., Cohen, 2004; Uchino, 2006; Robles et al., 2014), greater psychological well-being (Proulx et al., 2007; Ramsey & Gentzler, 2015), and even lower risk of death (Holt-Lunstad et al., 2010). Although there is a rapidly growing body of empirical evidence on the protective or detrimental effects of close relationships on health and well-being, an important question needs to be addressed—what aspects of close relationships are linked with better health and well-being outcomes, and through which mechanisms? One of the theoretical models describing how romantic relationships predict health and well-being is *the strength and strain model of marriage and health* (Slatcher & Selcuk, 2017). This model suggests that marital strengths (i.e., positive aspects of relationship) and strains (i.e., negative aspects of relationship) predict health through pathways such as positive health behaviors and psychological resources. Moreover, the model also proposes moderating effects of marital strengths, stress-buffering effects, on the link between stressors and health. One relationship aspect that might be particularly important to individuals' health and well-being is *perceived partner responsiveness*— the extent to which individuals believe that their romantic partners understand, validate, and care for them (Reis et al., 2004; Reis, 2007).

Perceived partner responsiveness (PPR) was first introduced by Reis and Shaver (1998) in their intimacy process model. They criticized the models that equated intimacy with self-disclosure. According to Reis and Shaver (1998), even though self-disclosure leads to intimate interactions, self-disclosure by itself is not sufficient to develop a sense of intimacy between two

individuals. Further, they proposed that PPR is a critical factor in developing and maintaining intimacy among couples. Specifically, disclosing feelings, thoughts, and desires is theorized to provide opportunities for partners to communicate understanding, validation, and care (i.e., perceived partner responsiveness) in response to these disclosures. The first of these components, *understanding*, refers to the belief that the partner accurately and appropriately "got the facts right." In other words, a partner needs to be aware of one's inner thoughts and qualities to be perceived as responsive. It is theorized that the following two components of PPR are predicated on understanding since validation and caring would seem intrusive without feeling understood. Second, *validation* refers to the belief that partners value and appreciate one's traits, goals, abilities, and worldview. While understanding is considered as being aware of one's partner's point of view, validation means appreciating and valuing these views. Validation is important because it conveys information about the partner's liking and acceptance of oneself. Third, *caring* refers to the belief that the partner will show affection and warmth and provide support when needed. Caring matters because it reveals a partner's concern for one's well-being.

Several studies provided empirical support for the intimacy process model by showing that only self-disclosures that lead to greater PPR predict intimacy among couples (e.g., Laurenceau et al., 1998; Laurenceau et al., 2005; Debrot et al., 2012). Recent research has also provided evidence for the role of PPR on well-being and health. More specifically, people who perceived their partners as responsive tend to report greater relational well-being, such as greater relationship satisfaction (Algoe et al., 2013, Bar-Kalifa et al.,2015, Cutrona et al., 2007), sexual desire (Birnbaum et al., 2012; Birnbaum et al., 2016), affectionate touch (Jolink et al., 2021), commitment (Segal & Fraley, 2016), and lower attachment insecurity (Gunaydin et al., 2020). Moreover, people who perceived their partners as responsive have better mental and physical

health, such as greater hedonic and eudaimonic well-being (Selcuk et al., 2016), greater sleep quality (Selcuk et al., 2017), lower levels of depressive symptoms (Dagan et al., 2014), healthier cortisol profiles (Slatcher et al., 2015), and even less mortality risk (Stanton et al., 2019).

One area that PPR might be critical is people's emotional experiences. It is theorized that people's perception of partner responsiveness is not only linked with the experience of emotions but also the expression of emotions (Clark et al., 2001; Sels et al., 2021). Supporting this, a recent study found that greater PPR was linked with greater emotional expression (Ruan et al., 2020), while lower perceived partner regard was linked with greater expressive suppression (Thomson et al., 2018). In the reverse causal direction, it is also theorized that people's emotional experiences might impact their capacity and motivation to be responsive to their partner's needs (Sels et al., 2021). Empirical research supports this claim by demonstrating that experiencing positive emotions widens people's attention (see Fredrickson, 2001 for a review), which might lead to greater responsiveness. In contrast, experiencing negative emotions narrows cognitive capacity (e.g., Gable et al., 2015), which then might be linked lower responsiveness to a partner's needs. In line with this argument, a study by Lin et al. (2019) demonstrated that experienced positive emotions predicted greater intentions to be responsive, whereas experienced negative emotions predicted lower intentions to be responsive. Also, people with high emotional inertia—which is the extent to which emotions are resistant to change over time— were perceived by their partners as less responsive (Luginbuehl & Schoebi, 2020). Taken together, this initial evidence suggests that PPR is closely linked with affect regulation and well-being.

The present dissertation aims to contribute to our growing understanding of the role of PPR in different ways. Three papers will investigate how PPR is related to affect *dynamics* and

well-being. Chapter 2[1] examines the determinants of perceived partner regard. The extent to which people feel confident in their partner's positive regard and caring for themselves is defined as perceived regard (or *reflected appraisals*) (Murray et al., 1996). Even though perceived partner responsiveness and partner regard are closely linked with each other, they are distinct aspects of romantic relationships. Perceived partner regard focuses on how favorable people believe they are evaluated by their partner and their confidence in this regard (Murray et al., 2003) whereas perceived partner responsiveness centers around perceiving one's partner as understanding, validating, and cared for (Reis et al., 2004). Both of them are rooted both in reality and also motivated interpretations of a partner's behaviors. However, perceived partner responsiveness was theorized on three core aspects (i.e., understanding, validation, and care) whereas perceived partner regard was theorized to capture how people thought their partner saw them on various attributes (e.g., kind and affectionate).

Similar to the literature on perceived partner responsiveness (Reis et al., 2004), the extent to which people believe they are evaluated favorably by their romantic partners plays an important role in relational well-being (Murray et al., 2006; Murray et al., 2000; Overall & Fletcher, 2010). Perceived regard seems to be determined partly by attitudes and expectations

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[1] Chapter 2 was previously published in the Journal of Social and Personal Relationships (Copyright © 2022 by the American Psychological Association. Reproduced with permission. The official citation that should be used in referencing this material is: Urganci, B., Ong, A.D., Burrow, A.L., & DeHart, T. Linking mean level and variability in affect to changes in perceived regard: A dyadic longitudinal burst study of African American couples. Journal of Social and Personal Relationships. No further reproduction or distribution is permitted without written permission from the American Psychological Association).

people bring to their romantic relationships. For instance, people with low self-esteem usually believe that their partners evaluate them negatively whereas people with high self-esteem correctly believe that their partners evaluate them positively (Gaucher et al., 2012; Murray et al., 2000). People with high attachment anxiety also underestimate their partners' positive regard for themselves (Murray et al., 2003). Therefore, it would be important to investigate whether heightened affective variability as an enduring vulnerability impacts perceived partner regard.

We used an ecological assessment approach over three weeks to assess individual differences in emotion dynamics (i.e., affect variability). We examined the extent to which variability in daily affect predicted subsequent perceived partner regard over 3-weeks among African American couples. This chapter provides one of the first pieces of evidence that examine the role of affect variability in relational well-being and tests these associations in a dyadic context. More specifically, greater variability in negative affect was linked with lower subsequent perceived partner regard. Variability in positive affect, on the other hand, was curvilinearly associated with perceived regard, meaning that a moderate amount of positive affect variability was linked with greater subsequent perceived regard.

Chapter 3 shifts the focus to further examine the stress-buffering role of PPR in everyday experiences in a sample of midlife adults. One of the central functions of PPR is to downregulate anxiety and other forms of negativity and to foster feelings of security (Collins & Feeney, 2000). Given the association between responsiveness and better self-regulatory processes, having a responsive partner may serve a homeostatic function that helps them to regulate their emotions better. The current chapter focuses on whether people high in PPR are less affectively reactive to daily negative and positive events. Results provide evidence that PPR predicted fewer increases in a negative affect on negative event days compared with non-negative event days.

Chapter 4 further extends the stress-buffering effect of PPR by examining a specific context (i.e., global pandemic) and a specific stressor (i.e., division of household labor) in a sample of adults from 27 different countries. A longitudinal study of individuals living with their relationship partners during the early weeks of the pandemic investigates the extent to which PPR buffers against the negative impact of unfair division of labor on well-being. The current chapter demonstrates that greater PPR leads to the reduced perceived unfairness of housework distribution, which in turn predicts greater sleep quality and positive affect. Finally, Chapter 5 highlights directions for future research on PPR and well-being. Overall, these studies utilize longitudinal and ecological assessment approaches to investigate how and when PPR is associated with diverse aspects of well-being such as affect regulation, psychological well-being, and sleep quality.

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CHAPTER 2

Linking Mean Level and Variability in Affect to Changes in Perceived Regard: A dyadic longitudinal burst study of African American couples

In both newly formed and established relationships, people seek admiration and acceptance from their partners (Murray et al., 2000). Both attachment theory (Bowlby, 1982) and the risk regulation model of close relationships (DeHart et al., 2003; Murray et al., 2000) suggest that attachment to significant others is more likely to occur when people experience a sense of felt security or love and acceptance from their partners. The extent to which people feel confident in a partner's positive regard and caring is defined as perceived regard (Murray et al., 1996). Previous research has found that dating and married couples report greater satisfaction in their relationships when they perceive that their partners see them more positively (Murray et al., 2000, 2006). However, what is less clear are the determinants of perceived partner regard.

People differ in the extent to which they experience day-to-day fluctuations in their emotions (Luginbuehl & Schoebi, 2020; Ong & Ram, 2017), and a large literature suggests that the experience of emotions in relationships accounts for substantial variability in the quality of those relationships (Bradbury et al., 2000; Gable & Reis, 2010; Mikulincer & Shaver, 2019; Randall & Bodenmann, 2009). Recent findings from couple studies suggest that affect dynamics might influence perceptions of partner understanding, validation, and care (Luginbuehl & Schoebi, 2020; Sels et al., 2021). In the present study, we propose that affect variability— as an indication of how well people regulate their emotions—is a key determinant of perceived regard. Using an ecological assessment approach (Bolger et al., 2003), we examined the extent to which variability in daily affect predicted subsequent perceived regard over 3-weeks.

Negative affect variability and well-being

The extent to which fluctuations in affect deviate from an individual's mean level of affect is defined as affective variability (Ong & Zautra, 2015). Affective variability is considered an indication of how well individuals adapt to changes in their environment and how well they regulate their emotions (Houben et al., 2015). Researchers have frequently operationalized affective variability by calculating the intraindividual standard deviation (iSD) of affect assessed by repeated observations. Larger iSDs correspond to more extreme fluctuations in affect for a given individual. Affective variability is considered a trait-like parameter (Eid & Diener, 1999), and growing evidence suggests that greater negative affect (NA) variability is associated with worse psychological well-being (see Houben et al., 2015; Röcke & Brose, 2013 for a review). For example, heightened NA variability is associated with a greater risk for depression (Jenkins et al., 2020; Koval et al., 2013; Peeters et al., 2006), borderline personality disorder (Jahng et al., 2011), neuroticism (Jacobs et al., 2011), psychological distress (Hardy & Segerstrom, 2017), lower psychological well-being (Houben et al., 2015), and even suicidal ideation (Palmier-Claus et al., 2012). Emerging evidence also suggests a role of NA variability in physical health. For example, greater NA variability is associated with worse sleep quality (Leger et al., 2019), immune function (Jenkins et al., 2018), daily cortisol profiles (Human et al., 2015), and inflammation (Jones et al., 2020).

Positive affect variability and well-being

As with NA variability, greater PA variability has also been linked with well-being. For example, Gruber et al. (2013) found that day-to-day ups and downs in PA were associated with lower life satisfaction and higher depression and anxiety. A longitudinal burst study by Hardy and Segerstrom (2017) found that greater PA variability was associated with higher psychological distress and physical ill-health. Another study by Human and colleagues (2015)

investigated the curvilinear association between PA variability and cortisol profiles. Findings showed that a moderate amount of PA variability was linked to favorable cortisol profiles (i.e., lower levels of cortisol and steeper daily slopes) in both middle-aged and older adults. These findings coincide with more recent evidence of a curvilinear association between affect dynamics (i.e., emotional inertia or the extent to which emotions are resistant to change) and relationship quality, such that moderate levels of inertia were associated with more optimal relationship functioning (Luginbuehl & Schoebi, 2020). Lastly, Jenkins et al. (2018) examined the interaction between mean level and variability in PA and their role in immune function. Findings indicated that high mean levels and low variability in PA were associated with better immune responses to influenza vaccination. Jones et al. (2020) found that high mean levels coupled with high variability in PA were associated with higher scores on inflammatory markers. Overall, these studies suggest that short-term fluctuations in PA might be an important determinant of health and well-being.

Do fluctuations in PA and NA have differential effects on well-being? To our knowledge, only two studies have examined both NA and PA variability in the same study. Hardy and Segerstrom (2017) found that greater NA variability was associated with psychological distress concurrently and prospectively. By contrast, they found that PA variability was associated with psychological distress concurrently but not prospectively. In another study, lower NA variability was associated with better immune response whereas the effect of PA variability was more nuanced and depended on the interaction with mean levels (Jenkins et al., 2018). Based on these findings, it is important to investigate the differential effects of NA and PA variability on well-being, along with interactions between variability and mean levels.

Affect variability and relational well-being

Basic axioms of attachment theory (Hazan & Shaver, 1987) and models of emotion regulation (Gross, 2001) suggest associations between emotion regulation strategies and mental representations of romantic partners. Empirical studies demonstrate that the use of emotion regulation strategies (e.g., reappraisal) is linked to marital stability (Gottman et al., 1998), greater relationship satisfaction (Bloch et al., 2014; Gottman & Levenson, 1992), higher levels of partners' conversation memories after couple conflict (Richards et al., 2003), more constructive perceived criticism (Klein et al., 2016), and positive dyadic coping (Rusu et al., 2019). To our knowledge, only one study has considered affective variability as an index of emotion regulation to predict relationship functioning. In a study involving a sample of predominantly White newlywed couples, McNulty and Hellmuth (2008) found that greater NA variability was positively associated with greater intimate partner violence over the previous year.

Given that people who are high in attachment anxiety and rejection tend to worry more about interpersonal acceptance (e.g., Murray et al., 2001), it is plausible that affect variability may function as a similar vulnerability factor that can shape perceptions of partner regard over time. Supporting this argument, a study by Gaucher et al. (2012) demonstrated that the expression of emotions to close friends and romantic partners is positively associated with increased perceived regard. The authors suggest that because expressing negative emotions may be riskier than expressing positive emotions, people need to be confident in their partner's regard. In a daily diary study of married couples, Murray and colleagues (2003) found that spouses low in perceived regard reported feeling more hurt and rejected on days when their partner had been in a negative mood. Building on this work, we investigate the extent to which variability in day-to-day positive and negative affect is associated with changes in people's perceptions of partner regard over time.

Relationship functioning and African American couples

African American couples are an important population who have been understudied in psychological science (Buchanan et al., 2021). Compared to other groups, African Americans are less likely to marry, more likely to divorce, and have the highest median age at first marriage compared to previous generations (Finkel et al., 2014; Helm & Carlson, 2013; McLoyd et al., 2000; U.S. Bureau of the Census, 2016a, 2016b). Despite these trends, a recent systematic review by Williamson et al. (2022) demonstrated that 68% of relationship-focused articles published in the top five relationships journals contained primarily White samples. Moreover, research on African American couples has tended to focus on the effects of race-related stressors on relationship functioning (Broman, 2005; Lavner et al., 2018; Lincoln & Chae, 2010). Little is known about how variability in day-to-day affect influences relationship functioning. Therefore, it seems that the time is ripe to examine the relationship dynamics of African American couples and factors that may uniquely influence their relationship functioning.

Another important reason to examine affect dynamics in the context of African American couples is that negative affectivity and emotional stress are believed to be important risk factors for interpersonal functioning among couples (Bryant et al., 2010; Finkel et al., 2014). Previous research has found that African American adults report greater use of emotion suppression as an emotion regulation strategy compared with White Americans (Gross & John, 2003; Langner et al., 2012). Therefore, examining sources of additional vulnerability (i.e., affect variability) would provide a nuanced understanding of which affective processes contribute to relationship functioning among African American couples.

The Current Study

Although prior work suggests a link between affective variability and well-being, there

are still several issues that need to be resolved. First, there is a paucity of work examining whether heightened affective variability, as an enduring vulnerability, impacts relational well-being. Modeling day-to-day dynamics (i.e., within-person variation) by assessing repeated observations of the same individual can reveal unique insights into relationship functioning (Girme, 2020). Second, as a basic premise in relationship science, romantic relationships are inherently dyadic and partners are interdependent (Rusbult & Van Lange, 2003) meaning that both partners have an ability to influence each other's experiences, functioning, and well-being (Sbarra & Hazan, 2008; Sels et al., 2021). Yet, with a few exceptions (e.g., Bloch et al., 2014; Mazzuca et al., 2019), studies of affect dynamics and relationship functioning have focused on actor effects (Muise et al., 2018). Models of emotion contagion suggest that how one partner regulates their own emotions impacts the relationship perceptions and functioning of the other partner (Butler & Randall, 2013). For instance, a study by Mazzuca and colleagues (2019) found that both individuals' own, and their partner's emotion regulation abilities (assessed by reappraisal and emotion contagion) were independently linked to greater marital satisfaction. Therefore, it is important to investigate whether variability in one partner's affect is associated with the other partner's relationship evaluations.

Third, as noted, prior relationship research involving African American couples tend to mostly examine the effects of race-related stressors such as discrimination on relational well-being (Lavner et al., 2018; Lincoln & Chae, 2010). Prior studies have considered affective dynamics among romantic couples (e.g., Randall et al., 2013), but rarely have African Americans been the focus of this work. Therefore, we aim to explore within- group effects (low vs. high affect variability) among African American couples and whether previous findings on affect variability and well-being also extend to African American couples.

Fourth, there are unresolved issues as to (a) whether affect variability predicts relationship outcomes independent of mean levels of affect in the context of couple data, (b) whether affect variability is curvilinearly associated with perceived regard, and (c) whether the interaction of level and variability in affect predicts relationship functioning. The literature suggests that mean levels of affect are often correlated with affect variability (Baird et al., 2006). Analyzing data from 15 different studies, Dejonckheere and colleagues (2019) found that after controlling for mean levels of affect, affective dynamics measures showed little added value or even non-significant associations with measures of well-being. Therefore, it is critical to investigate whether affect variability predicts perceived regard while controlling for mean levels of affect. Moreover, given the beneficial effects of experiencing a moderate degree of affect variability documented in previous work (Human et al., 2015; Luginbuehl & Schoebi, 2020), it would be important to test curvilinear associations between affect variability and perceived regard. Finally, based on the research suggesting that affect variability has different implications for individuals at different mean levels of affect (Jenkins et al., 2018; Jones et al., 2020), we aim to explore the interaction between affect variability and mean levels of affect.

Using a measurement-burst-design (Nesselroade, 1991; Sliwinski, 2008), we examined whether individual differences in affect variability (assessed across 21 days) are longitudinally associated with perceived regard. Using dyadic analyses, we examined actor and partner effects of affect variability on perceived regard. For actor effects, we hypothesized that participants' own heightened NA variability will be negatively as- sociated with their subsequent perceived regard. For partner effects, we hypothesized that having a partner who has heightened NA variability will be negatively associated with their own subsequent perceived regard. Given the different accounts on how PA variability is associated with well-being (Gruber et al., 2013;

Human et al., 2015), we explored the impact of PA variability on subsequent perceived regard. Further, we examined whether affect variability has a unique explanatory power in predicting perceived regard above and beyond mean levels. Following the prior work (Human et al., 2015), we explored potential curvilinear associations between affect components (mean level and variability) and changes in perceived regard. Lastly, based on other work (Jenkins et al., 2018), we explored whether affect variability interacted with mean levels to predict subsequent perceived regard.

Method

All materials and planned analyses were preregistered on the Open Science Framework (https://osf.io/p7uws/). All study procedures and materials were approved by the authors' Institutional Review Board.

Participants

One hundred and eighty African American couples were recruited from communities throughout the broader Chicago area via posters, community message boards, and advertisements on the Chicago Transit Authority (CTA). To be eligible, both members of the couple had to be at least 18 years old, identify as African American, and be married or living together. Of the 180 couples who participated in the study, 2 couples were excluded because at least one partner did not complete the baseline perceived regard measure. Of the remaining couples, 53 couples were excluded because at least one partner did not complete the follow-up survey. The final analytic sample (N = 125 couples) ranged in age from 18 to 73 (Mage = 38.13, SDage = 12.60, Mdnage = 35). Of the 125 couples, 13 couples were same-sex couples. Relationship length ranged from 4 months to 37 years (Myear = 8.08, SDyear = 9.28), and 42% of the participants were married, with 33.6% reporting that they had children. The median

individual income ranged from $25,000 to $50,000, and 61.2% of the participants were employed; 95.6% of the participants completed at least a high school education.

Procedure

The study consisted of a baseline survey (Time 1), a 21-day diary phase, and a follow-up survey (Time 2). Every day for 21 consecutive days, participants received an email at 8 p.m. providing a link to an online questionnaire that included NA and PA measures. They were allowed to complete the diary until 4 a.m. the following day. The median number of completed diaries was 20 (M = 19.10, SD = 2.59). Immediately following the diary assessment phase, participants again reported on their perception of the partner's regard (Time 2). At the end of the study, participants received monetary compensation of up to $175: $50 for the baseline survey and up to $125 for the daily diaries. Couples were also entered into a drawing to win an additional $500 at the end of the study.

Measures

Perceived regard. The 21-item measure, adapted from previous work (Murray et al., 1996, 2003), asked participants to report their perceptions of how they thought their partner saw them on different attributes (e.g., "kind and affectionate", "tolerant and accepting", "controlling and dominant", "thoughtless"). The responses were given on a 7-point scale (1 = *not at all characteristics*, 7 = *very characteristic*). Participants completed this measure during both the baseline survey and the follow-up survey. Negative items were reverse-scored such that higher scores indicating more favorable perceptions (α = .81 for T1, α = .81 for T2).

Affect variability. Daily positive affect and negative affect were assessed using daily diary surveys with 12 items taken from the Positive and Negative Affect Schedule (PANAS; Watson et al., 1988). Six items were used to assess PA ("alert", "cheerful", "excited", "happy",

"interested", "proud"), and six items were used to assess NA ("angry", "ashamed", "dejected", "distressed", "nervous", "sad"). The responses were given on 9- point scale (1 = *not at all*, 9 = *extremely*). Composite scores for mean NA and mean PA were computed by averaging these items, with higher scores indicating a higher level of NA and PA. Within-person standard deviations of NA and PA over 21-day were calculated for NA and PA variability, respectively.

Covariates. Gender of the actor, gender of the partner, the interaction between actor and partner gender, and T1 perceived regard were included in models as covariates. Following prior work on affect variability (Dejonckheere et al., 2019), we controlled for mean affect, calculated by averaging affect scores across 21-days.

Analytic approach

To account for the interdependence of individuals within dyads, we used dyadic data analysis (i.e., Actor Partner Interdependence Model; APIM) (Kenny et al., 2006). APIM estimates both actor effects (associations between an individual's affect variability and their own perceived regard) and partner effects (associations between an individual's affect variability and their partner's perceived regard) while accounting for the statistical non-independence among members of a given couple. In the current study, the majority of couples were heterosexual whereas 13 were same-sex couples. Following the strategy suggested by West et al. (2008), we included both heterosexual couples and same-sex couples in the analyses. Gender was contrast-coded (-1 = *male*, 1 = *female*). Given the small number of same-sex couples in the sample, both the main effect of gender and the interaction between actor and partner gender were not statistically significant and hence dropped from the final models. All analyses were conducted using the MIXED procedure in SPSS version 27.

NA variability and PA variability were examined separately as predictors of T2 perceived

regard. More specifically, in *Model* 1, we examined unadjusted analyses for NA variability (both actor and partner variables) on T2 perceived regard, controlling for T1 perceived regard. In *Model* 2, we added actor and partner mean-level NA. Furthermore, to control for curvilinear trends of the two components of NA variables (mean-level and variability) in the analyses, we included quadratic terms of mean-level NA and NA variability (both actor and partner variables) in *Model* 3. Finally, two-way interactions of actor and partner NA variability with mean-levels NA were included in *Model* 4. Parallel models were tested for PA variability (*Models* 5-8).

Results

Descriptive statistics

Means, standard deviations, and zero-order correlations among primary variables are presented separately for males (lower diagonal) and females (upper diagonal) in Table 1. Actor and partner NA variability scores were positively correlated with each other, suggesting interdependence among couples. Similarly, actor and partner PA variability scores were positively correlated with each other as well. At Time 1, perceived regard was negatively correlated with actor NA variability ($r = –0.33$) and partner PA variability ($r = –0.23$) for males, whereas it was negatively correlated with actor and partner NA variability and actor PA variability for females (*r*s range from |0.21| to |0.27|). At Time 2, perceived regard was negatively correlated with actor and partner NA and PA variability for males (*r*s range from |0.20| to |0.45|); for females (all *p*s > .10), perceived regard was negatively correlated with actor NA variability ($r = –0.29$).

Table 1

Correlations among Primary Study Variables

Variable	1	2	3	4	5	6	7	8	9	10	*M*	*SD*
1. Actor NA iSD	-	0.40**	0.59**	0.21*	0.65**	0.32**	-0.33**	-0.19*	-0.23**	-0.29**	1.05	0.65
2. Partner NA iSD	0.41**	-	0.25**	0.46**	0.26**	0.67**	-0.27**	-0.34**	-0.27**	-0.13	0.90	0.62
3. Actor PA iSD	0.48**	0.21*	-	0.30**	0.19*	0.15	-0.35**	-0.34**	-0.21*	-0.15	1.37	0.64
4. Partner PA iSD	0.24**	0.61**	0.26**	-	0.07	0.19*	-0.33**	-0.48**	-0.11	-0.08	1.31	0.64
5. Actor NA Mean	0.69**	0.32**	0.23**	0.13	-	0.37**	-0.40**	-0.07	-.41**	-.41**	2.11	1.22
6. Partner NA Mean	0.27**	0.67**	0.07	0.24**	0.36**	-	-.16*	-.28**	-.31**	-.24**	1.89	1.02
7. Actor PA Mean	-0.38**	-0.19*	-0.49**	-0.30**	-0.33**	-0.08	-	.45**	.44**	.36**	5.89	1.95
8. Partner PA Mean	-0.24**	-0.39**	-0.27**	-0.38**	-0.15	-0.45**	0.42**	-	.22**	.13	5.96	1.83
9. Perceived Regard T1	-0.33**	-0.15	-0.17	-0.23*	-0.33**	-0.15	0.42**	0.19**	-	.60**	5.06	0.81
10. Perceived Regard T2	-0.45**	-0.20*	-0.21*	-0.23**	-0.45**	-0.22*	0.45**	0.24**	0.69**	-	5.07	0.89
M	.89	1.03	1.28	1.34	1.89	2.11	6.16	6.10	5.04	5.06		
SD	0.62	0.66	0.67	0.67	1.02	1.22	1.86	1.97	0.82	0.87		

Note. Males are in the lower diagonal; females are in the upper diagonal. *M* = Mean, *SD* = standard deviation; iSD = intraindividual standard deviation. *$p < .05$, **$p < .01$

NA variability and perceived regard

APIM regression models tested whether actor and partner NA variability predicted perceived regard at T2 after controlling for T1 perceived regard. Results from these models are shown in Table 2. In unadjusted analyses, actor NA variability was a significant predictor of T2 perceived regard (Model 1, F (1, 243.63) = 20.79, b = 0.31, p < .001, 95% CI [0.44, 0.18]) and remained significant when controlling for mean NA (Model 2; F (1, 243.43) = 5.24, b = 0.20, p = 0.02, 95% CI [0.37, 0.03]). However, this association became non-significant when controlling for curvilinear effects (Model 3; F (1, 239.49) = 0.78, b = 0.21, p = 0.37, 95% CI [0.69, 0.26]). By contrast, partner NA variability was unrelated to T2 perceived regard (Model 1; F (1, 243.09) = 0.78, b = 0.06, p = 0.38, 95% CI [0.07, 0.19]) and remained nonsignificant in subsequent models (Model 2–4, all ps > 0.11). Lastly, there was no evidence for any curvilinear effects of the two components of NA variables (mean-level and variability) (Model 3; all ps > 0.16) or two-way interactions of variability and mean levels (Model 4; all ps > 0.37).

Table 2

NA variability predicting perceived regard

	Model 1 *b* [95% CI]	Model 2 *b* [95% CI]	Model 3 *b* [95% CI]	Model 4 *b* [95% CI]
Baseline perceived regard	0.61*** [0.51, 0.72]	0.59*** [0.48, 0.70]	0.58*** [0.46, 0.69]	0.58*** [0.47, 0.69]
Actor NA iSD	-0.31*** [-0.44, -0.18]	-0.20* [-0.37, -0.03]	-0.21 [-0.69, 0.26]	-0.24 [-0.72, 0.23]
Partner NA iSD	0.06 [-0.07, 0.19]	0.14 [-0.03, 0.31]	-0.11 [-0.57, 0.36]	-0.14 [-0.61, 0.33]
Actor NA Mean		-0.10 [-0.20, -0.00]	-0.41 [-0.87, 0.04]	-0.29 [-0.80, 0.21]
Partner NA Mean		-0.07 [-0.17, 0.03]	0.09 [-0.37, 0.54]	0.21 [-0.30, 0.71]
Actor NA iSD^2			0.05 [-0.11, 0.20]	0.15 [-0.13, 0.44]
Partner NA iSD^2			0.09 [-0.06, 0.25]	0.20 [-0.08, 0.48]
Actor NA $Mean^2$			0.04 [-0.02, 0.11]	0.05 [-0.02, 0.12]
Partner NA $Mean^2$			-0.02 [-0.09, 0.04]	-0.02 [-0.09, 0.05]
Actor NA iSD* Actor NA Mean				-0.11 [-0.35, 0.13]
Partner NA iSD* Partner NA Mean				-0.11 [-0.35, 0.13]
Error Variance	0.43*** [0.36, 0.51]	0.42*** [0.35, 0.50]	0.42*** [0.35, 0.50]	0.42*** [0.35, 0.51]
Correlation of Errors	0.28** [0.11, 0.44]	0.27** [0.10, 0.43]	0.27** [0.10, 0.43]	0.27** [0.09, 0.43]

Note. Confidence intervals below coefficient values, NA= Negative Affect; PA= Positive Affect, iSD = intraindividual standard deviation, iSD^2 = intraindividual affect standard deviation squared, $Mean^2$ = mean affect squared. *$p < .05$, **$p < .01$, ***$p < .001$.

Table 3

PA variability predicting perceived regard

	Model 5 *b* [95% CI]	Model 6 *b* [95% CI]	Model 7 *b* [95% CI]	Model 8 *b* [95% CI]
Baseline perceived regard	0.66*** [0.55, 0.77]	0.59*** [0.48, 0.71]	0.59*** [0.47, 0.70]	0.59*** [0.47, 0.71]
Actor PA iSD	-0.07 [-0.21, 0.06]	-0.01 [-0.15, 0.13]	-0.58* [-1.12, -0.05]	-0.75 [-1.82, 0.32]
Partner PA iSD	-0.05 [-0.18, 0.08]	-0.02 [-0.16, 0.12]	0.38 [-0.15, 0.92]	0.52 [-0.55, 1.60]
Actor PA Mean		0.08** [0.02, 0.13]	0.15 [-0.13, 0.44]	0.12 [-0.23, 0.46]
Partner PA Mean		-0.00 [-0.05, 0.05]	-0.24 [-0.53, 0.04]	-0.21 [-0.56, 0.14]
Actor PA iSD^2			0.18* [0.02, 0.35]	0.20* [0.01, 0.40]
Partner PA iSD^2			-0.11 [-0.28, 0.05]	-0.13 [-0.32, 0.70]
Actor PA $Mean^2$			-0.01 [-0.03, 0.02]	-0.01 [-0.03, 0.02]
Partner PA $Mean^2$			0.02 [-0.00, 0.05]	0.02 [-0.00, 0.05]
Actor PA iSD* Actor PA Mean				0.02 [-0.08, 0.12]
Partner PA iSD* Partner PA Mean				-0.02 [-0.11, 0.08]
Error Variance	0.46*** [0.38, 0.55]	0.45*** [0.37, 0.54]	0.44*** [0.37, 0.53]	0.44*** [0.37, 0.54]
Correlation of Errors	0.24** [0.07, 0.40]	0.26** [0.09, 0.42]	0.29** [0.12, 0.45]	0.29** [0.12, 0.45]

Note. Confidence intervals below coefficient values, NA= Negative Affect; PA= Positive Affect, iSD = intraindividual standard deviation, iSD^2 = intraindividual affect standard deviation squared, $Mean^2$ = mean affect squared. *$p < .05$, **$p < .01$, ***$p < .001$.

PA variability and perceived regard

Parallel models tested whether actor and partner PA variability predicted perceived regard at T2 after controlling for T1 perceived regard. Results from these models are shown in Table 3. In unadjusted analyses, actor PA variability was not associated with T2 perceived regard (Model 5; F (1, 245.82) = 1.25, b = 0.07, p = 0.26, 95% CI [0.21, 0.06]), and this association remained nonsignificant in models controlling for mean levels (Model 6; p = .91) and the interaction between variability and mean levels (Model 8; p = .16), respectively. Actor PA variability, however, was a significant predictor of T2 perceived regard in models that included curvilinear associations (Model 7; F (1, 234.18) = 4.60, b = 0.58, p = 0.03, 95% CI [1.12, 0.05]). Partner PA variability was unrelated to perceived regard (Model 5; F (1, 245.80) = 0.55, b = 0.05, p = 0.46, 95% CI [0.18, 0.08]) and this association remained nonsignificant across all models (Model 6–8; all ps > 0.16). In the models exploring potential curvilinear associations between the two components of PA variables (mean-level and variability), there was a significant curvilinear association between actor PA variability and perceived regard (Model 7; F (1, 232.91) = 4.82, b = 0.18, p = 0.03, 95% CI [0.02, 0.35]). Lastly, there was no evidence for any two-way interactions of actor and partner PA variability with mean levels (Model 8; all ps > 0.70).

Discussion

Although there is growing support for associations between affect variability and psychological well-being and physical health, the current study is among the first to examine the role of affect variability in relational well-being and test these associations in a dyadic context. Our findings indicated that higher levels of actor NA variability were associated with lower perceived regard over a 3-week period. This association remained significant in models

controlling for mean levels of NA. These findings extend the literature on affect variability and well-being (Jenkins et al., 2018; Koval et al., 2013; Leger et al., 2019) by demonstrating that greater NA variability is associated with impaired relational well- being. The study also examined partner effects of affect variability. Contrary to our hypothesis, partner NA variability was not related to subsequent perceived regard. Why did partner NA variability not predict subsequent perceived regard? One possibility is that relational well-being is mainly explained by relationship-specific variables (e.g., baseline perceived regard) and additional individual differences (i.e., affect variability), especially partner variables, may not add much predictive value (Joel et al., 2020; Zuo et al., 2020). Moreover, consistent with previous research on within couple associations (Johnson et al., 2021; Zuo et al., 2020), the links between partner affect variability and perceived regard might be conceptualized better as covariation rather than a prediction of change. Another possibility is that more widely spaced longitudinal assessments of perceived regard are needed to assess meaningful intraindividual change (Nesselroade, 1991). How to relate affective dynamics that manifest on micro time scales (e.g., hours, days) to relationship outcomes that unfold over macro time scales (e.g., years, decades) is a question that warrants greater attention in daily process studies (see Ong & Leger, in press).

Building on emerging literature on PA variability (e.g., Gruber et al., 2013), we also examined the role of PA variability in perceived regard. We found that actor PA variability was unrelated to subsequent perceived regard over a 3-week period. The finding that NA variability, but not PA variability, is associated with less perceived regard is in line with work suggesting that NA dynamics might be more relevant to relationship processes than PA dynamics (Stanton et al., 2019). It will be important to investigate the role of PA variability on different relationship outcomes such as sexual satisfaction and intimacy in future work.

We did not find evidence of curvilinear associations between NA variability and perceived regard. However, there was a significant curvilinear association between actor PA variability and perceived regard. This is in line with past work showing that moderate amounts of PA variability are associated with more favorable cortisol profiles (Charles, 2010; Human et al., 2015). Future research should examine the curvilinear associations between affective dynamics and other relationship outcomes.

Broadly, these results suggest that there are multiple patterns of associations between affect variability and perceived regard. The current literature on affect variability draws a mixed picture on whether affect variability predicts well-being above and beyond mean levels of affect (Dejonckheere et al., 2019). Our findings regarding NA variability are consistent with studies suggesting that fluctuations in NA are associated with lower psychological well-being, above and beyond mean levels (e.g., Hardy & Segerstrom, 2017). In contrast, our results for PA variability are consistent with prior work demonstrating curvilinear associations between affect dynamics and optimal relationship functioning (Luginbuehl & Schoebi, 2020), with moderate levels of PA variability associated with higher subsequent perceived regard in the current study. Overall, these results suggest that it may be important to account for mean levels as well as and curvilinear effects when examining links between affect dynamics and relational well- being.

Research suggests that there are individual differences in perceived partner regard. Studies show that people high in self-esteem correctly believe that their relationship partners see them positively, whereas people low in self-esteem mistakenly believe that their relationship partners see them negatively (Gaucher et al., 2012; Murray et al., 2000). Similarly, people who are chronically sensitive to rejection or high in attachment anxiety also underestimate their partner's regard for themselves (Murray et al., 2003). This perception (or misperception) of felt

security and confidence in a partner's continued caring and affection may be an important predictor of relationship functioning (Murray et al., 1998; Reis & Shaver, 1988). Future work should examine whether these individual difference variables moderate the impact of affect variability on perceived regard.

The current study has several strengths. First, by using a longitudinal burst design (i.e., a 21-day diary), we modeled within-person variation to capture the varying nature of people's emotional experiences and their impact on relational outcomes across time (Girme, 2020). This ecologically valid measurement offers an opportunity to observe emotions or behaviors in naturally arising contexts as people go through their lives (Reis & Gable, 2000; Reis & Gosling, 2010). Second, by obtaining data from both partners and at multiple points in time, we examined how dyadic processes (e.g., partner effects) evolve in dynamic ways over time (Eastwick et al., 2019; Gable & Reis, 1999; Girme, 2020; Muise et al., 2018). Lastly, a key strength of the current study was the examination of the role of affect variability on well-being in a sample of African American couples, thereby providing an opportunity for in-depth exploration of within-group effects (Bryant et al., 2010).

Despite these strengths, the findings should be interpreted in light of a few methodological limitations. The current study included participants who are mostly younger adults. Given that older adults usually report higher levels of PA and less variability in their lives than younger adults (Carstensen et al., 2011), it would be important for future studies to examine whether the effects observed in the present study are replicated in older samples. Second, it will be important for future research to consider the generalizability of these findings to other ethnic-racial populations and geographic areas in the US. Furthermore, in the current study, we investigated changes in perceived regard over a three- week period which raises a question about

whether perceived regard is expected to change during this time. Thus, future studies should test how affect dynamics shape perceived regard over longer time spans. Lastly, the present study considered affect variability as a predictor of relational well-being; however, future work would benefit from investigating other indices of affect dynamics such as affective inertia and affective instability (Luginbuehl & Schoebi, 2020; Ong & Ram, 2017; Ong & Steptoe, 2020).

In sum, findings from the present study demonstrated that greater actor NA variability was associated with lower subsequent perceived regard even after controlling for mean levels of NA. The results also suggest that the mean levels of PA and moderate amounts of PA variability were associated with improved perceived regard. Given the differences between PA and NA components in predicting relationship outcomes, future researchers should examine both stable (i.e., mean level) and dynamic (i.e., variability) features of affective experiences and their relations to interpersonal outcomes. The current study also has important implications for couples' counseling. Given that affect variability is found to be a vulnerability factor for relationships, it could be beneficial to develop intervention programs that teach couples how to regulate their emotions as they go through their daily activities. For African American couples, affect dynamics may play a particularly important role in intimate relationships, with greater NA variability and too little or too much PA variability leading to less perceived partner responsiveness.

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CHAPTER 3

Perceived Partner Responsiveness Predicts Affective Reactivity to Negative Events

Daily hassles are minor stressors whereas daily uplifts are minor positive events that are part of our everyday lives. Researchers have long investigated how daily hassles and daily uplifts are linked with individuals' long-term health and well-being. An important finding emerging from the daily process is that individuals differ from one another in how their affect changes in response to these daily events. In fact, greater decreases in positive affect and increases in negative affect changes on days when they experience stressors are prospectively associated with developing the affective disorder (Charles et al., 2013), diminished psychological well-being (Selcuk et al., 2016), chronic health conditions (Piazza et al., 2013), inflammation (Sin et al., 2015), and even mortality risk (Mroczek et al., 2013). Even though researchers have extensively focused on the negative impacts of daily hassles, daily uplifts have also important implications for individuals' well-being (Gunaydin et al., 2016; Hill et al., 2020). More specifically, smaller increases in positive affect and decreases in negative affect were linked with greater global well-being (Grosse Rueschkamp et al., 2020). Yet, an important question still remains. Who is most likely to be affectively reactive to daily hassles and uplifts? In the current study, we propose that people with high levels of *perceived partner responsiveness*—the extent to which people believe that their partners understand, validate, and care for them— are less likely to have affective reactivity to daily hassles and uplifts.

Perceiving one's partner as responsive promotes better outcomes across multiple domains of people's lives. It has been shown that perceived partner responsiveness is linked with lower depressive symptoms (Dagan et al., 2014), greater emotional expression (Ruan et al., 2020; Forest & Wood, 2011), and greater hedonic and eudaimonic well-being (Selcuk et al., 2016).

However, despite the benefits of perceived partner responsiveness, little is known about the daily lives of individuals with high responsiveness. Do people with high responsiveness experience more daily positive affect and less daily negative affect? Do they differ in their affective responses to these daily events compared with individuals with low responsiveness?

Daily Hassles and Affect

A seminal work by Bolger and Zuckerman (1995) proposed a *Person x Situation* framework to explain how personality traits influence stress processes. They theorized that personality traits might predict changes in affect in response to daily negative events. Supporting their predictions, they found that participants with high Neuroticism had greater negative affective reactivity to daily conflicts compared to people with low Neuroticism. Even though Bolger and Zuckerman (1995) focused on Neuroticism in their study, they noted that this framework can be applied to other individual differences as well. A more recent study (Leger et al., 2016) found that higher levels of Extraversion, Openness, and Conscientiousness are associated with less negative affective reactivity to stressors. Moreover, sense of purpose (Hill et al., 2018) and trait reappraisal (Gunaydin et al., 2016) are found to be other individual differences that buffered against increases in a negative affect on stressor days than on stress-free days.

Daily Uplifts and Affect

Following a *Person x Situation* framework, which has only considered daily negative events and daily negative affect (Bolger & Zuckerman, 1995), Zautra and colleagues (2015) have proposed that daily positive events and daily positive affect should be included in this theorizing to provide a better conceptualization of everyday life experiences. Given that positive events are common in our daily lives (Totenhagen et al., 2012; Sin & Almeida, 2018), how individual

differences are linked with the associations between daily uplifts and positive affect is an important question to investigate. Zautra and colleagues (2015) theorized that positive personality traits such as Extraversion might predict changes in individuals' affect in response to daily positive events. They found that people high in Extraversion experience positive events more frequently but neither Neuroticism nor Extraversion moderated the association between daily positive events and daily positive affect. Following this study, other work has found that Big Five personality traits (Klaiber et al., 2022), sense of purpose (Hill et al., 2020), and trait reappraisal (Gunaydin et al., 2016) are linked with both occurrence of positive events and even related positive affect.

Perceived Partner Responsiveness and Affect Regulation

Perceived partner responsiveness is fundamentally tied to emotional experiences (Sels et al.) and it might be another individual difference that can predict affective reactivity to daily events. Perceiving one's partner as responsive to their needs is linked with the downregulation of anxiety (Selcuk et al., 2017) and felt security in a relationship (Gunaydin et al., 2021). More recent research has also found that greater responsiveness is linked with increased emotional openness (Ruan et al., 2020) and lower emotional inertia. Yet, it remains unknown whether individual differences in perceived partner responsiveness are associated with how people respond to daily hassles and uplifts. One study by Grosse Rueschkamp and colleagues (2020) has found that higher global well-being is related to reduced affective reactivity to daily positive events. In other words, people who have greater well-being tend to have smaller increases in their positive affect and smaller decreases in their negative affect when they experience daily positive events. Given that perceived partner responsiveness is strongly tied with psychological

well-being (e.g., Selcuk et al., 2016), it is plausible that people with greater perceived partner responsiveness might also have reduced affective reactivity to daily events.

The Current Study

The primary purpose of the current study was to investigate whether perceived partner responsiveness moderates the associations between daily events (positive and negative events) and daily affect (positive and negative affect) (see Figure 2.1 for the conceptual model). To examine this, we used a national sample of adults using data from the Midlife in the United States Study where participants reported their perception of partner responsiveness. A subset of participants completed daily diary interviews by phone for eight days, in which they reported their daily affect and daily events. First, we predicted that experiencing daily negative events will be associated with greater daily negative affect whereas experiencing daily positive events will be associated with lower daily negative affect. Also, we predicted that perceived partner responsiveness would be associated with lower daily negative affect. More importantly, we hypothesized that compared with individuals who reported lower levels of perceived partner responsiveness, those reporting higher will have less of an *increase* in their daily negative affect when they experienced daily negative events but less of a decrease in their daily affect when they experienced daily positive events.

We also tested the role of perceived partner responsiveness in the associations between daily events and daily positive affect. We predicted that experiencing daily negative events will be associated with lower positive affect whereas experiencing daily positive events will be associated with higher positive affect. Additionally, we also predicted that perceived partner responsiveness would be associated with greater daily positive affect. More importantly, we hypothesized that compared with individuals who reported lower levels of perceived partner

responsiveness, those reporting higher will have less of a *decrease* in their positive affect when they experienced daily negative events but less of an *increase* in their positive affect when they experienced daily positive events. Across all models, we tested whether all hypothesized associations hold even after controlling for demographic factors (i.e., gender, age, race, income, and marital status) in separate analyses.

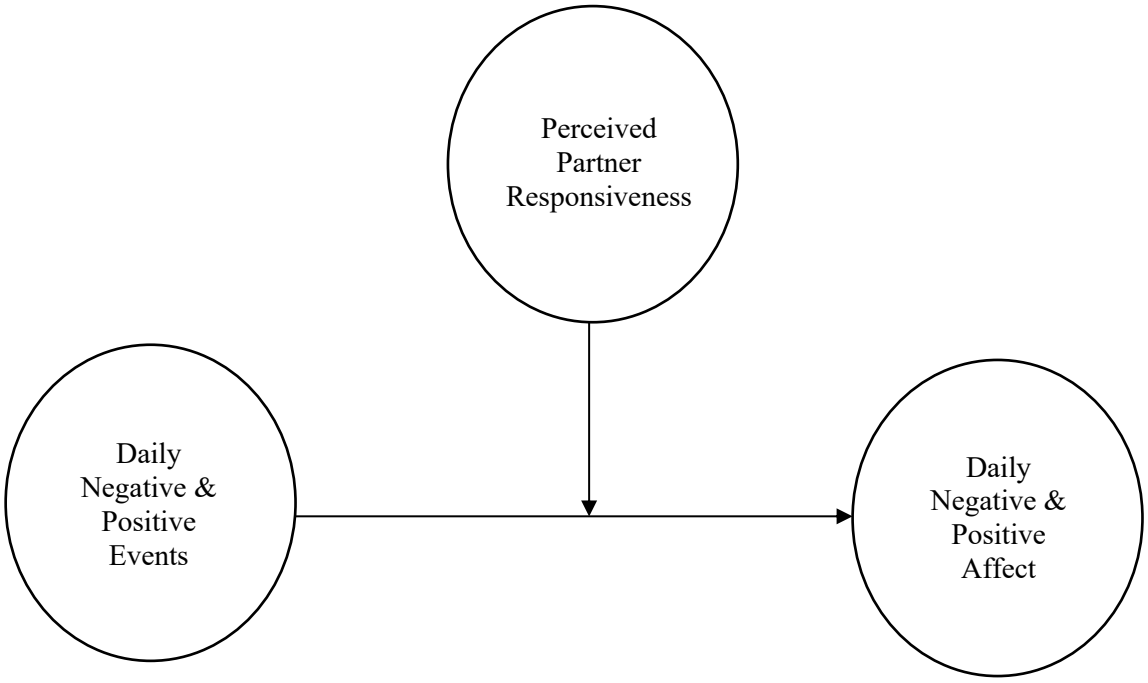

Figure 2.1 The conceptual model linking perceived partner responsiveness to reactivity to daily events

Method

Participants and Procedure

The data for the current study came from the second wave of the Midlife in the United States Study (MIDUS) (Ryff et al., 2007). The MIDUS survey was first administered in 1995 to examine age-related variations in physical and mental health in midlife and older adulthood. MIDUS 2 was conducted from 2004-2006 as a 10-year follow-up of the first wave of MIDUS.

The subset of the participants who completed MIDUS was also recruited for the National Study of Daily Experiences (NSDE) where they completed 8-day diary interviews by phone on their daily experiences (Ryff & Almeida, 2010). The current study included participants who completed the MIDUS 2 survey (in which PPR and covariates were assessed) as well as daily interviews of NSDE (in which daily affect and daily events were assessed).

MIDUS II survey data was comprised of 4963 participants. Of these participants, 1267 participants were excluded because they were neither married nor living with their partners. Of the remaining 3696 participants, 2309 were excluded because they did not complete the daily diary survey (i.e., NSDE). An additional 74 participants were excluded for missing data on perceived partner responsiveness, leaving a sample of 1313 participants (52.2% females) for primary analyses. The final analytic sample ranged in age from 33 to 83 (M_{age} = 55.92, SD_{age} = 11.909, Mdn_{age} = 55). 96.4% of the participants were married.

Data collection and procedures were approved by the Education and Social/Behavioral Sciences and the Health Sciences Institutional Review Boards (IRBs) at the University of Wisconsin-Maddison. Data and codebooks for MIDUS are publicly available from the Interuniversity Consortium for Political and Social Research.[2] All planned analyses were pre-registered on the Open Science Framework (https://osf.io/g9mj4/).

Measures

Perceived partner responsiveness (PPR). Corresponding to core features of responsiveness (Reis & Shaver, 1988), perceived partner responsiveness was assessed using three items (e.g., "How much does our spouse or partner understand the way you feel about things?") on a 4-point scale (1= *a lot*, 4 = *not at all*) (see Appendix 2.A for the full items). The

[2] https://www.icpsr.umich.edu/icpsrweb

items were reverse-coded such that higher scores indicating greater responsiveness ($\alpha = 0.84$). The composite score for perceived partner responsiveness was calculated by averaging across three items ($M = 3.584$, $SD = 0.562$).

Daily affect. For eight consecutive days, participants indicated how often they felt 13 positive emotions (e.g., "in good spirits, cheerful, extremely happy, calm and peaceful") and 14 negative emotions (e.g., "restless or fidgety, nervous, hopeless, upset) on a scale from 0 (none of the time) to 4 (all of the time) (see Appendix 2.B for the full items). The composite score for positive affect and negative affect were calculated by averaging across the items for each day, with higher scores indicating greater positive and negative affect, respectively. Since affect was assessed at the day level, two-level null models were used to estimate mean levels of positive and negative affect. The mean daily negative affect was 0.179 ($SE = 0.006$) and the mean daily positive affect was 2.744 ($SE = 0.019$).

Daily events. As part of NSDE, participants reported on they experienced any negative events in seven different domains including argument, avoided an argument, stressor at work or school, stressor at home, discrimination, network stressor, and any other stressful events not covered by previous categories (Almeida, Wethington, & Kessler, 2002) (see Appendix 2.C for questions). Participants also reported whether they experienced any positive events in five different domains including positive interaction with someone, a positive event at work or school, a positive event at home, a positive event happened to close others, and any other positive events not covered by previous categories (see Appendix 2.D for questions). The mean number of positive events experienced per day was 1.13 ($SD = 1.002$) whereas the mean number of negative events experienced per day was 0.52 ($SD = 0.739$). Daily negative and positive events were recoded either as 0 (when no negative/positive events were experienced) or as 1 (when at least

one negative/positive event was experienced) for each day. We used this dichotomous variable to represent the occurrence of a daily event in the multilevel models.

Covariates. Person-mean negative event (i.e., negative event exposure), person-mean positive event (i.e., positive event exposure), age, gender, race, income, and marital status[3] were included as covariates.

Analytic Approach

Based on the prior work on daily stress studies (Sin et al., 2015; Gunaydin et al., 2016), *negative* affective reactivity to daily events and its association with perceived partner responsiveness was examined using the following two-level model in HLM v7 software (Raudenbush et al., 2019):

Level 1 (day-level):

$$\text{Negative Affect}_{ij} = \pi_{0j} + \pi_{1j}\,\text{Negative Event}_{ij} + \pi_{2j}\,\text{Positive Event}_{ij} + e_{ij}$$

Level 2 (person-level):

$$\pi_{0j} = \beta_{00} + \beta_{01}\,\text{Perceived Partner Responsiveness}_j + \beta_{02}\,\text{Positive Event Exposure}_j + \beta_{03}\,\text{Negative Event Exposure}_j + r_{0j}$$

$$\pi_{1j} = \beta_{10} + \beta_{11}\,\text{Perceived Partner Responsiveness} + r_{1j}$$

$$\pi_{2j} = \beta_{20} + \beta_{21}\,\text{Perceived Partner Responsiveness} + r_{2j}$$

At Level 1, we entered the occurrence of a daily negative event (i.e., whether they experienced at least one negative event) and daily positive event (i.e., whether they experienced at least one positive event) as time-varying measures. At Level 2, we included person-mean frequency of negative events, person-mean frequency of positive events, and perceived partner

[3] In the pre-registration form, we reported to include relationship length as a covariate. Since the MIDUS survey assessed marital length for married participants but how long they have lived for cohabiting (but not married) participants, we decided to include marital status as a covariate instead of relationship length.

responsiveness as time-invariant measures. We included cross-level interactions between perceived partner responsiveness and daily negative event and daily positive event in the multilevel models to test whether perceived partner responsiveness predicted negative affective reactivity to daily events. We re-run this multilevel model by including covariates to see whether these possible associations hold even after controlling for age, race, gender, income, and marital status. In this adjusted model, the Level 1 equation was the same as above and the Level 2 equation was as follows:

Level 2 (person-level):

$\pi_{0j} = \beta_{00} + \beta_{01}$ Perceived Partner Responsiveness $_j + \beta_{02}$ Positive Event Exposure$_j + \beta_{03}$ Negative Event Exposure$_j + \beta_{04}$ Age $+ \beta_{05}$ Race $+ \beta_{06}$ Gender $+ \beta_{07}$ Income $+ \beta_{08}$ Marital Status $+ r_{0j}$

$\pi_{1j} = \beta_{10} + \beta_{11}$ Perceived Partner Responsiveness $+ r_{1j}$

$\pi_{2j} = \beta_{20} + \beta_{21}$ Perceived Partner Responsiveness $+ r_{2j}$

To examine whether perceived partner responsiveness predicted *positive* affective reactivity to daily events, the multi-level model described above was used in the same way except that the outcome variable was daily positive affect.

Table 1

Correlations among primary study variables

	1	2	3	4	5
1. PPR	-				
2. Positive Affect	0.241**	-			
3. Negative Affect	-0.218**	-0.0481**	-		
4. Positive Events	0.081**	0.101**	0.019	-	
5. Negative Events	-0.202**	-0.280**	0.462**	0.286**	-
Mean (SD)	3.584 (0.562)	2.741 (0.680)	0.183 (0.236)	0.716 (0.271)	0.401 (0.265)
Range	1-4	0-4	0-4	0-1	0-1

Note. PPR = Perceived partner responsiveness. *$p < .05$, **$p < .01$. Person-level affect and events were computed by aggregating scores across 8 days.

Results

Descriptive Statistics and Correlations

Table 1 presents descriptive statistics and bivariate correlations among primary variables. Perceived partner responsiveness was negatively correlated with negative events and negative affect but positively correlated with positive events and positive affect. Positive affect was correlated with negative events and positive events in the expected direction whereas negative affect was only significantly correlated with negative events. Lastly, positive affect was negatively correlated with negative affect.

PPR and Negative Affective Reactivity

At the within-person level, experiencing negative event was associated with increases in daily negative affect ($\beta_{10} = 0.166$, $SE = 0.006$, $p < 0.001$) whereas experiencing positive event was associated with decreases in daily negative affect ($\beta_{20} = -0.00$, $SE = 0.006$, $p = 0.984$). There

were also between-person differences in the links between daily events and negative affect. Individuals who experienced on average fewer number of positive events (β_{02} = -0.073, *SE* = 0.017, $p < 0.001$) and greater number of negative events experienced higher daily negative affect (β_{03} = 0.172, *SE* = 0.020, $p < 0.001$). In addition, perceived partner responsiveness also negatively predicted daily negative affect (β_{01} = -0.037, *SE* = 0.012, $p < 0.001$). More importantly, perceived partner responsiveness predicted lower negative affective reactivity to negative events (β_{11} = -0.049, *SE* = 0.012, $p < 0.001$). That is, individuals who perceived their partners as highly responsive experienced lower increases in their negative affect from a non-stressor day to a day in which they experienced at least one stressor. However, perceived partner responsiveness did not predict negative affective reactivity to positive events (β_{21} = 0.016, SE = 0.011, $p = 0.144$). We performed another model including age, race, gender, income, and marital status as predictors of average negative affect (i.e., intercept) (see Model 1b in Table 2). Higher income was significantly associated with lower average negative affect (Model 1b, β_{07} = -0.024, SE = 0.007, $p < 0.001$). Perceived partner responsiveness was still significantly associated with negative affective reactivity to negative events in this adjusted model (Model 1b, β_{11} = -0.048, SE = 0.012, $p < 0.001$).

PPR and Positive Affective Reactivity

At the within-person level, experiencing negative event was associated with decreases in daily positive affect (β_{10} = -0.141, *SE* = 0.010, $p < 0.001$) whereas experiencing positive event was associated with increases in daily positive affect (β_{20} = 0.071, *SE* = 0.011, $p < 0.001$). There were also between-person differences in the links between daily events and positive affect. Individuals who experienced on average greater number of positive events (β_{02} = 0.373, SE = 0.072, $p < 0.001$) and fewer number of negative events experienced higher daily positive affect

(β_{03} = -0.578, *SE* = 0.073, $p < 0.001$). In addition, perceived partner responsiveness also positively predicted daily positive affect (β_{01} = 0.229, SE = 0.038, $p < 0.001$). However, perceived partner responsiveness did not predict positive affective reactivity to negative events (β_{11} = -0.010, *SE* = 0.017, $p = 0.569$) and positive affective reactivity to positive events (β_{21} = -0.028, *SE* = 0.018, $p = 0.120$). We performed another model including age, race, gender, income, and marital status as predictors of average positive affect (i.e., intercept) (see Model 2b in Table 3). The results from unadjusted model remained the same even after controlling for covariates. Being female and having greater income were significantly associated with higher average positive affect (Model 2b, β_{06} = 0.035, *SE* = 0.017, $p = 0.044$, β_{07} = 0.073, *SE* = 0.027, $p = 0.007$; respectively).

Table 2

Multilevel models predicting daily negative affect

Predictors	Model 1a. Without Covariates		Model 1b. With Covariates	
	Coefficient (SE)	*p*	Coefficient (SE)	*p*
Intercept, π_0				
Intercept, β_{00}	0.111 (0.006)	<0.001	0.136 (0.039)	<0.001
PPR, β_{01}	-0.037 (0.012)	0.003	-0.034 (0.012)	0.005
Positive event frequency, β_{02}	-0.073 (0.017)	<0.001	-0.064 (0.017)	<0.001
Negative event frequency, β_{03}	0.172 (0.020)	<0.001	0.166 (0.020)	<0.001
Age, β_{04}	-	-	-0.000 (0.000)	0.515
Race, β_{05}	-	-	0.018 (0.018)	0.297
Gender, β_{06}	-	-	-0.002 (0.004)	0.596
Income, β_{07}	-	-	-0.024	<0.001
Marital Status, β_{08}	-	-	-0.034 (0.029)	0.241
Negative event slope, π_1				
Intercept, β_{10}	0.166 (0.006)	<0.001	0.175 (0.007)	<0.001
PPR, β_{11}	-0.049 (0.012)	<0.001	-0.048 (0.012)	<0.001
Positive event slope, π_2				
Intercept, β_{20}	-0.000 (0.006)	0.984	-0.003 (0.007)	0.595
PPR, β_{21}	0.016 (0.011)	0.144	0.016 (0.011)	0.149

Note. SE = Standard errors. PPR = Perceived partner responsiveness. All Level 2 continuous variables were grand mean centered. Gender was effect coded (-1 = male, 1 = female). For marital status, married individuals were coded as 1 and cohabiting individuals were coded 0. For race, European Americans were rated as 1 and others were rated as 0.

Table 3

Multilevel models predicting daily positive affect

Predictors	Model 2a. Without Covariates		Model 2b. With Covariates	
	Coefficient (SE)	*p*	Coefficient (SE)	*p*
Intercept, π_0				
Intercept, β_{00}	2.749 (0.021)	<0.001	2.581 (0.129)	<0.001
PPR, β_{01}	0.229 (0.038)	<0.001	0.217 (0.038)	<0.001
Positive event frequency, β_{02}	0.374 (0.071)	<0.001	0.314 (0.072)	<0.001
Negative event frequency, β_{03}	-0.578 (0.073)	<0.001	-0.508 (0.073)	<0.001
Age, β_{04}	-	-	0.007 (0.001)	<0.001
Race, β_{05}	-	-	0.026 (0.078)	0.737
Gender, β_{06}	-	-	0.035 (0.017)	0.046
Income, β_{07}	-	-	0.073 (0.027)	0.007
Marital Status, β_{08}	-	-	0.097 (0.102)	0.342
Negative event slope, π_1				
Intercept, β_{10}	-0.141 (0.010)	<0.001	-0.139 (0.010)	<0.001
PPR, β_{11}	-0.010 (0.017)	0.569	-0.009 (0.017)	0.581
Positive event slope, π_2				
Intercept, β_{20}	0.071 (0.011)	<0.001	0.075 (0.012)	<0.001
PPR, β_{21}	-0.028 (0.018)	0.120	-0.027 (0.018)	0.137

Note. SE = Standard errors. PPR = Perceived partner responsiveness. All Level 2 continuous variables were grand mean centered. Gender was effect coded (-1 = male, 1 = female). For marital status, married individuals were coded as 1 and cohabiting individuals were coded 0. For race, European Americans were rated as 1 and others were rated as 0.

Discussion

Although there is an emerging literature suggesting associations between perceived partner responsiveness and affective experiences (Ruan et al., 2020; Luginbuehl & Schoebi, 2020), the current study is among the first to examine the stress-buffering role of perceived partner responsiveness in naturally occurring daily events. To our knowledge, no study to date has considered perceived partner responsiveness as a protective factor against reactivity to daily events. Using multilevel analyses of everyday life experiences, the present research examined whether perceiving one's partner as responsive is associated with their experienced daily negative affect on days with and without a daily event (positive and negative). Participants who reported, on average, a greater number of negative events and fewer number of positive events experienced higher daily negative affect. Also, participants who reported greater perceived partner responsiveness tended to report less negative affect. Furthermore, perceived partner responsiveness predicted lower increases in negative affect in response to daily negative (but not positive) events. This association between perceived partner responsiveness and negative affective reactivity to negative events held controlling for demographic factors. These findings are consistent with the emerging literature suggesting that individuals who perceive their partners as highly responsive may be better able to regulate their emotions especially when they experience obstacles (Mikulincer & Shaver, 2019; Sels et al., 2021). Supporting this, the current study demonstrates that although daily negative events dampen people's emotional well-being, the negative reactivity to these stressful events might be buffered for individuals with greater perceived partner responsiveness.

Building on the literature on positive affect and daily experiences (Zautra et al., 2005; Klaiber et al., 2022), we also tested whether perceived partner responsiveness is associated with

individuals' daily negative affect on days with and without a daily event (positive and negative). Participants who reported, on average, a greater number of positive events and fewer number of negative events experienced higher daily positive affect. These findings are consistent with research on daily positive affect (Zautra et al., 2005; Oishi et al., 2007; Grosse Rueschkamp et al., 2020). Moreover, individuals who stated greater perceived partner responsiveness tended to report more daily positive affect. However, contrary to our hypothesis, perceived partner responsiveness did not moderate the associations between daily events (positive and negative) and daily positive affect. perceived partner responsiveness was linked with greater positive affect across days as noted, but the magnitude of this association was similar for days with and without negative events, and days with and without positive events. This null result does not align with the recent research suggesting that higher well-being is associated with reduced affective reactivity to daily positive events (Grosse Rueschkamp et al., 2020). This research has considered satisfaction with life, trait affect, and depressive symptoms as a measure of global well-being and found that people with higher well-being had smaller increases in momentary positive affect when they experienced positive events. Therefore, looking at global relational well-being (measured by different aspects of relationship outcomes) instead of a specific aspect of the relationship (i.e., perceived partner responsiveness) might yield a similar pattern of results with this research.

One possible explanation for this null result is that individual differences explained more of the variance in the impact of the stressor on negative affect rather than the impact of the stressor on positive affect. Similar to these findings, some studies found that certain individual differences (e.g., sense of purpose, trait reappraisal) predicted average daily positive affect but did not predict positive affective reactivity to negative events (Gunaydin et al., 2016; Hill et al.,

2018). Moreover, most of the literature on affective reactivity to daily events has either considered daily stressors (e.g., Bolger & Zuckerman, 1995; Hill et al., 2018; Sin et al., 2015) or daily positive events (e.g., Hill et al., 2020; Sin et al., 2017). Given that we simultaneously included both daily negative and positive events into our models might be another explanation for why perceived partner responsiveness did not predict positive affective reactivity to daily events.

A few things are worth noting regarding the strengths in the methods and design of the current study. First, in contrast to most of the research on daily affect that has focused on either daily positive or negative events, the analyses in the current study have included both positive and negative events to provide a complete picture of everyday experiences. Daily positive and negative events were assessed through semi-structured telephone interviews which allowed to capture daily events that are uniquely negative or positive for a given participant, instead of using a checklist of events. Third, the daily diary approach used in the current study allowed us to examine how buffering effects of perceived partner responsiveness might manifest in real-world settings where daily stressors and positive events are likely to be more meaningful to people as opposed to experimentally induced stressors or positive events in controlled lab settings.

Despite its strengths, we note several limitations of the present study and provided some directions for future research. First, even though daily diary interviews allowed us to examine within-person variations in daily affect and daily event exposure, perceived partner responsiveness was assessed only once in the baseline survey. Future research should aim to assess PPR in daily measures as well which will allow us to capture fluctuations in people's perceived partner responsiveness which might be a better predictor of their affective reactivity to

daily events than the average level of perceived partner responsiveness. Also, examining daily perceptions of partner responsiveness would allow researchers to test the causal direction of the associations between daily perceived partner responsiveness, daily affect, and daily events.

The second limitation of the current study is regarding the diversity of the sample. Participants in the MIDUS project are mostly European Americans. Therefore, it would be important for future research to test the generalizability of the observed findings to ethnic-racial minority groups. Additionally, even though we controlled for potentially meaningful demographic factors in our analyses, participants were in their middle and late adulthood, and the majority of them were married. This poses the question of whether the effects observed in the current study would be replicated in a sample of younger and/or dating individuals. Future studies should test how perceived partner responsiveness influences daily experiences in more heterogenous samples.

Conclusion

Daily negative events are inevitable and usually result in an increased negative affect on days when these events occur. In the present study, we demonstrated perceiving one's partner as responsive provides benefits in daily life experiences. Perceived partner responsiveness was found to predict the extent to which people's negative affect reactivity to stressors. These findings contribute to our understanding of the person-situation framework in everyday life along with the stress-buffering role of perceived partner responsiveness.

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CHAPTER 4

Examining the Role of Perceived Partner Responsiveness on the Links between Housework and Well-being during COVID-19 Pandemic

The COVID-19 pandemic led to disruptions in people's daily lives by stay-at-home orders requiring people to spend more time in their homes and with people in the same household, such as romantic partners. One major challenge for many has been balancing time for paid and domestic labor (Waddell et al., 2021). Research during COVID-19 suggests that people spent more time on household labor compared to their average time before the pandemic, and these increases were particularly high among women (Craig & Churchill, 2021). Perceived inequity or unfairness in a couple's division of household labor is one of the topics that lead to conflicts in romantic relationships (Fincham, 2003) which has important consequences for relational and psychological well-being (Pietromonaco & Overall, 2021). Previous research demonstrated that unequal and unfair division of housework is associated with greater depression, stress, and poorer overall well-being (e.g., Bird, 1999; Lively et al., 2010; Rodriguez-Stanley et al., 2020). In the present research, we propose that *perceived partner responsiveness*—the extent to which people believe their romantic partners understand, validate, and care for them—buffers against the negative impact of unfair division of housework on well-being.

Division of Housework and Well-being

Although married individuals, on average, are happier and healthier than their unmarried counterparts, conflict is inevitable in romantic relationships, and these conflicts have a deleterious impact on relational, psychological, and physical well-being (Karney & Bradbury, 1995; Slatcher & Selcuk, 2017). What are these relationship conflicts about? Couples can argue

on various topics ranging from what to eat, to decisions about leisure time, to more severe conflicts such as division of household chores (Jackson et al., 2016). An extensive literature provides consistent evidence that people who report doing more housework than their partners experience greater depression, psychological well-being, and relationship functioning. Moreover, high household chores hours were indirectly linked to psychological and relational well-being through perceived unfairness (Claffey & Mickelson, 2009; Lavee & Katz, 2002; Rodriguez-Stanley et al., 2020). This line of research, along with equity theory, has suggested that studying actual hours spent on household labor does not give a complete picture of the role of division of household labor on well-being, and people's perception of unfairness is more critical in determining well-being outcomes (Klumb et al., 2006; Waddell et al., 2021). Thus, we tested perceived unfairness as a predictor of well-being in the current study.

Recent findings from studies during COVID-19 have suggested that people, especially women, spent more hours on housework compared to the time before the pandemic (Craig & Churchill, 2021; Yildirim & Eslen-Ziya, 2021). This increase in time spent on housework was associated with lower subjective well-being (Giurge et al., 2021) and greater emotional strain (Ruppanner et al., 2021). Moreover, perceived unfair division of housework was associated with greater relationship problems and lower relationship satisfaction (Gordon et al., 2022; Waddell et al., 2021). Based on these findings, it is essential to investigate *how* and *when* a more perceived unfair division of housework is associated with poor psychological well-being.

The Role of Perceived Partner Responsiveness in Well-being

Despite the recognition that perceived unfairness in a couple's division of household labor is associated with worse psychological well-being, it remains an open question whether interpersonal dynamics buffer this association. One of the theoretical models describing how

romantic relationships predict health and well-being is *the strength and strain model of marriage and health* (Slatcher & Selcuk, 2017). This model suggests that while marital strains (negative aspects of the relationship) have a stress-intensifying effect, marital strengths (positive aspects of the relationship) have a stress-buffering effect on the impact of housework on psychological well-being. One relationship aspect that might be particularly important to individuals' well-being is *perceived partner responsiveness* (PPR)— the extent to which individuals believe that their romantic partners understand, validate, and care for them (Reis, 2007; Reis et al., 2004). When partners are perceived as responsive, personal and relational well-being tend to be enhanced, whereas when partners are perceived as unresponsive or critical, personal and relational well-being tend to be deteriorated (Reis & Gable, 2015; Reis & Shaver, 1988). More specifically, people who perceived their partners as responsive have greater hedonic and eudaimonic well-being (Selcuk et al., 2016; Tasfiliz et al., 2018), lower levels of depressive symptoms (Dagan et al., 2014; Fekete et al., 2007), greater emotional expressivity (Forest & Wood, 2011; Ruan et al., 2020), and better sleep quality (Selcuk et al., 2017).

Even though no study to date has considered the association between PPR and division of housework, perceived partner responsiveness is also theorized to buffer stress reactivity in negative contexts (Selcuk et al., 2018). According to attachment theory, an attachment figure who is responsive to one's needs and goals helps us to regulate stress reactivity and anxiety and promote a sense of security (Hazan & Shaver, 1994). Indeed, empirical findings documented that perceiving one's romantic partner as responsive reduces reactivity to daily stressors and anxiety, which in turn is linked with greater well-being (Selcuk et al., 2016; Selcuk et al., 2017). Moreover, a recent study found that perceiving one's partner as a responsive buffer against the

stressor on relationship quality (Balzarini et al., in press). Based on this literature, we propose that PPR buffer against unfair household labor division.

The Current Study

In the current pre-registered study, we examined the prospective links between perceived unfairness of housework distribution, PPR, and well-being over 4-weeks in a sample of individuals who were living with their partners during the COVID-19 pandemic. We were interested in the breadth of impact of stress buffering role of PPR on mental health. Therefore, following prior work on household labor (e.g., Rodriguez-Stanley et al., 2020), we examined positive affect, negative affect, purpose in life, depression, and sleep (assessed separately) as measures of well-being outcomes. We hypothesized that greater level of PPR at T1 would buffer against the negative association between perceived unfairness of housework distribution at T2 and well-being at T3 (moderation model). As a competing hypothesis, we also tested whether greater levels of PPR at T1 would decrease the likelihood of perceived unfairness of housework distribution at T2, which, in turn, would lead to better well-being at T3 (mediation model).

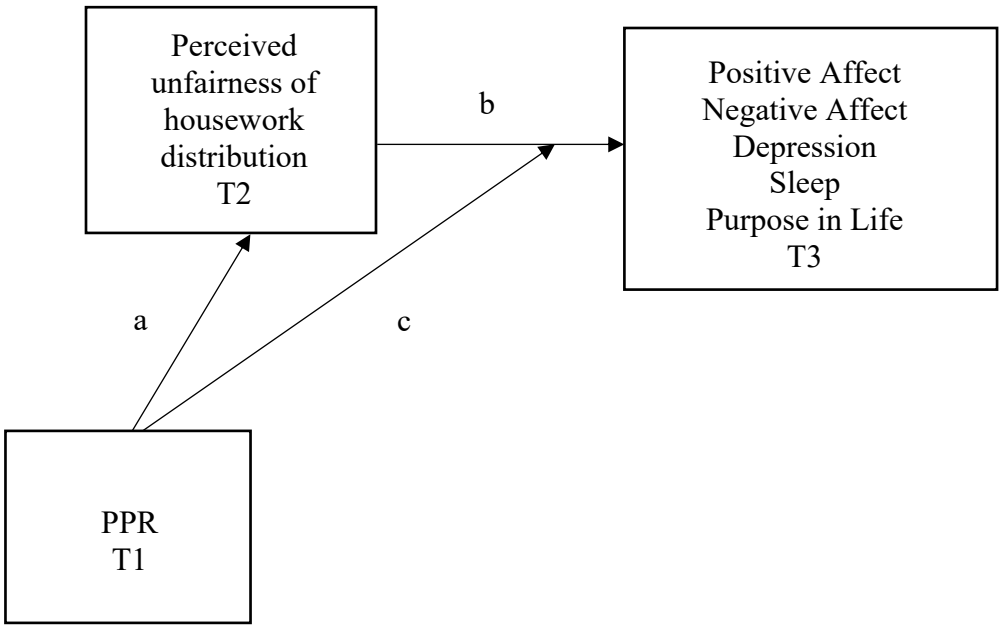

Figure 1. Conceptual diagram for the current study where we test two competing models: moderation (path c moderates path b) vs. mediation (path a through path b).

In addition to our stress-buffering hypotheses, we also tested several exploratory research questions. First, the prior research has repeatedly shown that in mixed-gender couples, women have spent more time on housework than men (Bird, 1999; Lavee & Katz, 2002; Wong & Almeida, 2013) despite increases in women's paid labor force participation (United States Bureau of Labor Statistics, 2021) and progress towards gender equality in domestic labor (Guppy et al., 2019). Even though the gender gap in the distribution of housework has been narrowing in recent years, unfair division of housework still has a more detrimental impact on women's well-being than men's well-being (Chong & Mickelson, 2016; Lavee & Katz, 2002; Rodriguez-Stanley et al., 2020). Therefore, we tested whether the stress-buffering effect of PPR on the impact of perceived unfairness of housework distribution on well-being will be different for men and women.

Second, past research has also suggested that the impact of perceived unfairness of housework distribution on well-being differed by people's socioeconomic status. The Reserve Capacity Model (Gallo & Matthews, 2003) suggests that individuals with low socioeconomic status are more vulnerable to stress (e.g., unequal housework distribution) because of their reduced reserve of resources. Because of deficiencies in reserve capacities to handle stress, people with low socioeconomic status experience greater negative emotions, which in turn affects physical health. Supporting the Reserve Capacity Model, empirical findings showed that people with a more unfair or unequal share of housework and those in low socioeconomic status have greater psychological distress and lower psychological well-being (Matthews & Power, 2002; Rodriguez-Stanley et al., 2020). Based on this literature, we tested whether the stress-buffering role of PPR on the link between perceived unfairness and well-being varies across different levels of SES.

Finally, based on previous literature (Lively et al., 2010; Rodriguez-Stanley et al., 2020; Waddell et al., 2021), in both moderation and mediation models that we tested, we examined whether the possible associations would hold even after controlling for age, gender, SES, employment status, marital status, and which country participants are from.

Method

Participants and Procedure

As part of a longitudinal study on the impact of the COVID-19 pandemic on interpersonal relationships, participants were recruited through social media, word-of-mouth, and the project website. Participants were given a Qualtrics survey link to complete the initial survey and then were sent a follow-up survey every two weeks for three months. The study was launched on March 27th in English, and then it was translated into ten other languages (Spanish,

Turkish, Thai, Chinese, Dutch, French, German, Italian, Indonesia, and Portuguese) using back-translation procedures. Participation in this study was voluntary.

For the current project, only participants (N = 449) in romantic relationships who were living with their partners across Time 1-Time 3 were included. Thirty-five participants were excluded for not correctly answering at least one attention check question each wave (T1, T2, T3). Of 414 participants, 59 participants were excluded because they had missing data on primary variables. The final analytic sample consists of 355 participants (82.3% women) who were living together with their partners. The sample ranged in age from 18 to 74 (M_{age} = 38.29, SD_{age} = 11.81, Mdn_{age} = 36). Relationship length ranged from 11 months to 54 years (M_{year} = 12.45, SD_{year} = 10.85), and 64.5% of the participants were married. All methods and planned analyses for the current study were preregistered on the Open Science Framework (Blind for review). All study procedures and materials were approved by the fourth author's Institutional Review Board.

Measures

Perceived partner responsiveness (T1). Three items from the responsiveness subscale of the Perceived Responsiveness and Insensitivity Scale (Crasta et al., 2021) were used to assess perceived partner responsiveness ("Over the last two weeks, my partner... 'really listened to me', 'seemed interested in what I was thinking and feeling', and 'tried to see where I was coming from'"). Each item was rated on a 6-point scale (1 = *not at all*, 6 = *completely*). A composite score for total PPR was computed by averaging these items, with higher scores indicating higher PPR (α = .92).

Perceived unfairness (T2). A single item was used to assess perceived unfairness in division of household labor ("Over the past two weeks, how fair do you think your division of

household chores with your romantic partner has been?") (Barrett & Raphael, 2018). The responses were given on a 4-point scale (1 = *very fair*, 4 = *very unfair*), with higher scores indicating greater perceived unfairness.

Positive and negative affect (T3). Hedonic well-being scale adapted from PANAS (Watson & Clark, 1994) consists of positive and negative affect subscales. Eight items were used to assess negative affect (e.g., stressed, isolated). Four items were used to assess positive affect (e.g., excited, happy). The responses were given on a 5-point scale (1 = *very slightly or not at all*, 5 = *extremely*). Composite scores for total negative and positive affect were computed by averaging these items, with higher scores indicating a higher level of negative (α = .84) and positive affect (α = .69).

Purpose in life (T3). A single item from the Meaning in Life Questionnaire (Steger et al., 2006) was used to assess purpose in life ("My life has had a clear sense of purpose.") on a 7-point scale (1 = *not at all*, 7 = *completely*).

Depression (T3). Three items from the Patient Health Questionnaire (Löwe et al., 2010) were used to assess depression ("Over the last two weeks, how often have you been bothered by the following problems? Little interest or pleasure in doing things; feeling down, depressed, or hopeless; feeling anxious or uneasy"). The responses were given on a 4-point scale (1 = *not at all*, 4 = *nearly every day*). A composite score for total depression was computed by averaging these items, with higher scores indicating greater depression (α = .74).

Sleep (T3). A single item from the Pittsburgh Sleep Quality Index (Smyth, 2008) was used to assess sleep ("In the last two weeks, how would you rate your sleep quality?") on a 5-point scale (1= *poor*, 5 = *excellent*).

Covariates (T1). Demographic factors were included in the models to account for potential confounds. More specifically, education (ranged from 1 = *less than 6 years* to 8 = *doctoral degree*) and income ("How would you describe the money situation in your household right now?" from 1 = *comfortable with extra* to 4 = *Cannot make ends meet;* reverse coded) were standardized and then averaged to create a proxy measure for SES. Moreover, gender (Ref: female), age (in years), marital status (was dichotomized as 1 = *married* vs. 0 = *not married*), employment status ("Are you currently working?", 1 = *yes*, 2 = *no*), and participants' country information ("In which country are you currently living?) were used as covariates.

Analytic Approach

We standardized all continuous variables before conducting any analyses. First, we tested to see whether perceived unfairness and PPR predicted well-being outcomes. Then, to test our primary hypothesis regarding the *moderation model*, we used PROCESS Macro Model 1 of Hayes' (2017) bootstrapping procedure with 5000 samples. More specifically, we tested whether PPR (T1) moderates the impact of perceived unfairness (T2) on well-being outcomes (T3). Significant interaction probes were calculated for -1 SD, mean, and +1 SD. To test our primary hypothesis regarding the *mediation model*, we used PROCESS Macro Model 4 of Hayes' (2017) bootstrapping procedure with 5000 samples. More specifically, we investigated whether PPR (T1) influenced well-being outcomes (T3) through perceived unfairness (T2). After testing these unadjusted models, we repeated all analysis models described above with covariates. As supplemental analyses, we examined whether the associations between PPR, perceived unfairness, and well-being differ between men and women. Additionally, we tested the extent to which the associations between PPR, household labor, and well-being are most impactful for low vs. high SES participants.

Results

Descriptive Statistics and Correlations

Table 1 presents descriptive statistics and correlations among study variables. Perceived partner responsiveness was negatively correlated with perceived unfairness, negative affect, and depression but positively correlated with positive affect, purpose in life, and sleep quality (*r*s range from |0.17| to |0.35|). Perceived unfairness was negatively associated with positive affect, purpose in life, and sleep quality but positively associated with negative affect and depression (*r*s range from |0.13| to |0.21|). Next, we performed a series of t-tests to explore possible gender differences in study variables (see Table 1). Women reported significantly higher level of negative affect (M = 2.29, SD = 0.76) than men (M = 2.04, SD = 0.75), $t(346) = -2.17$, $p = .03$. Men reported significantly higher level of positive affect (M = 2.82, SD = 0.84) than women (M = 2.56, SD = 0.70), $t(346) = 2.19$, $p = .03$. Men also reported significantly higher level of purpose in life (M = 5.00, SD = 1.47) than women (M = 4.49, SD = 1.60), $t(346) = 2.21$, $p = .03$. Lastly, women reported significantly higher level of depression (M = 1.87, SD = 0.64) than men (M = 1.64, SD = 0.63), $t(346) = -2.49$, $p = .01$.

Analyses testing PPR as a moderator

Results from moderation models are presented in Table 2. In unadjusted models, the interaction between PPR at T1 and the perceived unfairness of the housework division at T2 was marginally significant in predicting sleep quality at T3, $b = -0.10$, $p = 0.049$, 95% CI [-0.19, 0.00]. Simple slope analyses indicated that the association of perceived unfairness and sleep quality was significant for participants with a PPR level 1 SD above the mean ($b = -0.24$, 95% CI [-0.39, -0.09], $p = 0.002$) but not for participants with PPR level 1 SD below the mean ($b = -0.05$, 95% CI [-0.19, 0.09], $p = 0.50$) (see Figure 2). This moderation did not remain significant when

adjusting for demographic variables, b = -0.09, p = 0.084, 95% CI [-0.18, 0.01]. There was no evidence of two-way interactions between PPR and perceived unfairness in predicting positive affect, negative affect, depression, and purpose in life (all ps > .07).

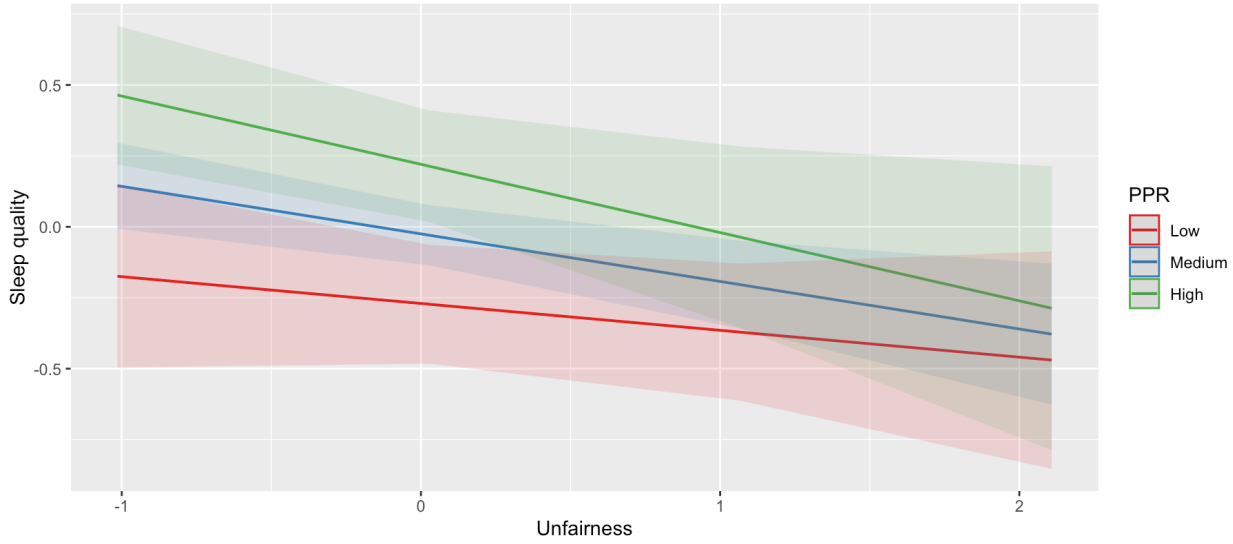

Figure 2. Sleep quality as a function of unfairness of housework distribution at the different level of perceived partner responsiveness

Analyses testing PPR as a mediator

We used Model 4 of Hayes' (2018) bootstrapping procedure with 5000 samples to run mediation models. To test our mediation hypotheses, we examined mediation models where perceived unfairness was tested as a mediator between PPR and well-being (positive affect, negative affect, purpose in life, depression, and sleep; assessed separately). As shown in Table 3, PPR was indirectly linked via perceived unfairness to positive affect (b = .04, SE = .02, 95% CI [.00, .08]) in unadjusted models but this result did not remain significant after controlling for demographics (b = .04, SE = .02, 95% CI [-.00, .08]). PPR was also indirectly linked via perceived unfairness to sleep quality (b = .05, SE = .02, 95% CI [.01, .09]) in unadjusted models and this result remained significant in the model controlling for demographics (b = .05, SE = .02,

95% CI [.01, .09]). By contrast, no indirect effect was found linking PPR to negative affect (95% CI [-.07, .01]), depression (95% CI [-.08, .00]), and purpose in life (95% CI [-.01, .07]) through perceived unfairness.

Supplemental Analyses

In a series of supplementary analyses to moderation models, we used the PROCESS macro model 3 to test three-way interactions between PPR, perceived unfairness, and gender in predicting well-being outcomes (positive affect, negative affect, purpose in life, depression, and sleep; assessed separately). There was no evidence of any three-way interactions between PPR, perceived unfairness, and gender (all *p*s > .28). Similarly, we also tested three-way interactions between PPR, perceived unfairness, and SES in predicting well-being outcomes. There was no evidence of any three-way interactions with SES (all *p*s > .07).

As supplementary analyses to mediation models, we then ran moderated mediation models to test whether the prospective indirect effects of PPR on well-being outcomes through perceived unfairness were moderated by gender. More specifically, we used the PROCESS macro model 59, which tests whether the direct (c') and indirect path (a, b) is moderated by gender. We found that the overall moderated mediation model for negative affect was supported with the index of moderated mediation equals 0.19 (95% CI = [.05, .35]). The conditional indirect effect of PPR on negative affect is significant for males (*b* = -.21, *SE* = .08, 95% CI [-.37, -.07]) but not for females (*b* = -.01, *SE* = .02, 95% CI [-.05, .03]). The results of moderated-mediations were invariant across gender for positive affect (95% CI = [-.18, .15]), depression (95% CI = [-.01, .28]), sleep quality (95% CI = [-.26, .06]) and purpose in life (95% CI = [-.20, .06]).

Lastly, we ran moderated mediation models using the PROCESS macro model 59 to test whether the prospective indirect effects of PPR on well-being outcomes through perceived unfairness were moderated by SES. We found that the conditional indirect effect of PPR on positive affect was significant in those low in SES (1 *SD* below the mean of SES) (*b* = .05, *SE* = .03, 95% CI [.00, .10]) but not in those high in SES (1 *SD* above the mean of SES) (*b* = .01, *SE* = .03, 95% CI [-.03, .07]). We also found that the conditional indirect effect of PPR on sleep quality was significant in those low in SES (1 *SD* below the mean of SES) (*b* = .06, *SE* = .03, 95% CI [.02, .12]) but not in those high in SES (1 *SD* above the mean of SES) (*b* = .01, *SE* = .03, 95% CI [-.05, .06]). The moderated mediation results were invariant across different levels of SES for other well-being outcomes.

Discussion

Division of household labor is one of the most prominent conflicts among cohabiting couples (Fincham, 2003; Jackson et al., 2016), with implications for individuals' psychological and relational well-being (Lavee & Katz, 2002; Rodriguez-Stanley et al., 2020). Despite the rich literature documenting that unequal and unfair division of labor is associated with lower relationship functioning and psychological well-being, *how* and *when* unfair division of housework is associated with poor mental health is unclear. Also, stay-at-home orders during the early weeks of the COVID-19 pandemic provided a unique context where individuals had more difficulty balancing their time between paid and domestic work compared to pre-pandemic times (Waddell et al., 2021), with documented adverse effects on relational well-being. Extending this literature on division of household labor, the current study is the first attempt to examine PPR as a stress-buffering mechanism between unfair division of housework and psychological well-being during the early weeks of COVID-19.

Our findings indicated that perceived unfair division of housework was associated with lower positive affect, sleep quality, purpose in life, and more negative affect and depression. We tested whether PPR moderated the association between unfair division of housework and well-being. However, we did not find strong evidence regarding the stress buffering role of PPR. Moreover, as a competing hypothesis, we tested whether PPR is linked to well-being via unfair division of housework. Results from mediation analyses showed a significant indirect effect relating PPR to positive affect and sleep quality through perceived unfairness over 4-weeks. While the results regarding sleep quality remain significant with and without controlling for gender, SES, age, marital status, employment status, and country, the results regarding positive affect did not remain significant after controlling for demographics. Overall, our findings corroborate and extend the literature on division of labor and well-being (e.g., Lively et al., 2010; Rodriguez-Stanley et al., 2020) by demonstrating that PPR can buffer against the detrimental effect of unfair division of household labor on sleep quality. These findings are also consistent with previous work showing that PPR predicts lower sleep problems and greater sleep efficiency through lower anxiety (Selcuk et al., 2017).

Even though greater PPR at Time 1 is positively linked with purpose in life and negatively associated with negative affect and depression at Time 3, PPR did not have stress-buffering effect against unfair division of housework on the impact of negative affect, depression, and purpose in life across mediation and moderation models. One possibility is that more widely spaced longitudinal assessments of PPR, and well-being outcomes are needed to assess the meaningful stress-buffering effect of PPR.

Building on previous literature, we also explored whether the stress-buffering effect of PPR on the impact of perceived unfairness of housework distribution on well-being will be

different for men and women. Contrary to previous findings, women did not perceive a more unfair division of labor in the current study. One potential explanation is the majority of our sample was women. Future studies should aim to test these questions in evenly distributed samples. This finding might be also partially explained by our measure of perceived unfairness which does not specify whether it was unfair to participants themselves or their partners. It would be crucial to investigate the role of PPR on unfair division of labor in the context of when people contribute less and when they contribute more separately. Also, moderated mediation analysis demonstrated that PPR was indirectly linked to negative affect through perceived unfairness for men but not for women.

Moreover, we also explored SES as a potential factor that contributes to division of household labor. Accordingly, we found that the indirect effect of PPR on positive affect through perceived unfairness was apparent only in lower SES individuals. This finding extends the emerging literature on division of housework and SES (Rodriguez-Stanley et al., 2020) by suggesting that people with low SES might receive greater health benefits arising out of perceiving one's partner as responsive.

One of the key strengths of the current study was the use of longitudinal data during the early weeks of the COVID-19. This provides an opportunity to observe how and when unfair division of household labor is linked to poor psychological well-being during the unique period where everyone spent most of their time at their homes with their relationship partners. Second, by translating the survey to ten other languages, we obtained data from participants from 27 different countries, supporting the generalizability of the current findings. Lastly, even though division of household labor is by nature a source of interpersonal conflict, with one exception

(Gordon et al., 2022), no study to date has considered interpersonal dynamics as stress-buffering against unfair division of labor.

Despite the strengths of the present research, the findings should be interpreted in light of a few limitations. In the current study, we examined the prospective associations between PPR and well-being outcomes over the 4-weeks period. It will be essential for future research to examine the stress-buffering effects of PPR on well-being over longer time spans. Furthermore, as it was noted before, our measurement of perceived unfairness does not specify whether the division of housework was unfair to participants themselves or their partners. Thus, future studies should measure perceived unfairness specifically to participants themselves. Lastly, future research should investigate these questions by adopting dyadic designs that allow to understand whether couples agree on the extent to which division of household labor was unfair to the same person and whether this agreement is linked with less decrease in psychological well-being.

Conclusion

The current study advances our understanding of division of household labor by demonstrating that perceived partner responsiveness buffers against the negative impact of unfair division of household labor on sleep quality and positive affect. Our results support the notion that PPR serves as a stress-buffering mechanism against both external and internal stressors on well-being (Balzarini et al., in press; Selcuk et al., 2017; Slatcher & Selcuk, 2017). External stressors to the relationship (i.e., bereavement) and enduring individual vulnerabilities (i.e., emotion regulation abilities) might be needed to understand further how the COVID-19 impacts relationship dynamics and psychological well-being (Pietromonaco & Overall, 2021). These results can also be beneficial for practitioners in couples counseling as division of household

labor is one of the leading conflicts. Couples with low perceived partner responsiveness can be identified as a target intervention group where strategies to be more understanding, validating, and caring to partner's needs might be offered, which might prevent potential disagreements and perceived unfairness of housework distribution.

Table 1

Correlations among Focal Variables

	1	2	3	4	5	6	7
1. PPR	-						
2. Perceived Unfairness	-.35**	-					
3. Negative Affect	-.17**	.13*	-				
4. Positive Affect	.25**	-.18**	-.43**	-			
5. Purpose in Life	.28*	-.17**	-.40**	.49**	-		
6. Sleep	.26**	-.21**	-.36**	.33**	.29**	-	
7. Depression	-.17**	.15**	.69**	-.50**	-.42**	-.38**	-
M (*SD*)	4.44(1.18)	1.97(.96)	2.26(.77)	2.59(.73)	4.54(1.60)	2.81(1.09)	1.85(.65)
t-value (Cohen's *d*)	.20 (.03)	-1.07 (.16)	-2.17* (.32)	2.19*(.36)	2.21*(.32)	.36(.05)	-2.49* (.36)

Note: ***$p < .001$, **$p < .01$, *$p < .05$. PPR = Perceived partner responsiveness. Reported t-values are for the t-tests conducted for gender differences.

Table 2

Moderating effects of PPR on the impact of perceived unfairness on well-being

	Positive Affect		Negative Affect		Depression		Sleep		Purpose in Life	
	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model
PPR	.23*** [.12, .34]	.23*** [.12, .34]	-.16* [-.27, -.05]	-.18** [-.30, -.07]	-.13* [-.24, -.01]	-.17** [-.28, -.07]	.24*** [.13, .35]	.24*** [.13, .35]	.24*** [.13, .35]	.27*** [.16, .38]
Perceived Unfairness	-.12* [-.22, -.01]	-.11 [-.22, -.01]	.09 [-.02, .20]	.06 [-.05, .17]	.10 [.00, .21]	.09 [-.02, .19]	-.14** [-.25, -.04]	-.14* [-.25, -.03]	-.08 [-.18, .03]	-.07 [-.18, .03]
PPR*Perceived Unfairness	-.09 [-.19, .01]	-.09 [-.18, .01]	.06 [-.04, .16]	.04 [-.06, .14]	-.01 [-.11, .09]	-.02 [-.12, .07]	-.10* [-.19, .00]	-.09 [-.18, .01]	.03 [-.07, .12]	.03 [-.07, .12]
Gender		-.11 [-.25, .03]		.09 [-.05, .23]		.08 [-.05, .22]		.02 [-.12, .16]		-.09 [-.22, .05]
SES		.04 [-.06, .15]		-.17*** [-.28, -.06]		-.13* [-.23, -.02]		.14 [.03, .25]		.08 [-.03, .18]
Age		.01 [-.12, .14]		-.15* [-.28, -.02]		-.23*** [-.36, -.11]		.08 [-.04, .21]		.10 [-.02, .22]
Marital Status		.33* [.07, .58]		.02 [-.24, .27]		-.23 [-.48, .01]		-.03 [-.28, .22]		.36** [.12, .61]
Employment Status		.00 [-.25,.25]		.21 [-.04, .46]		.13 [-.11, .37]		.06 [-.19, .31]		.09 [-.15, .33]
Country		.11* [.01, .21]		-.12* [-.23, -.02]		-.12* [-.22, -.02]		-.08 [-.18, .02]		.09 [-.01, .19]

Note: Confidence intervals below coefficient values. PPR = Perceived partner responsiveness. ***$p < .001$, **$p < .01$, *$p < .05$.

Table 3

Mediating effects of PPR on well-being through perceived unfairness

	Positive Affect		Negative Affect		Depression		Sleep		Purpose in Life	
	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model	Unadjusted model	Adjusted Model
Indirect effect	**.04** [.00, .08]	.04 [.00, .08]	-.03 [-.07, .01]	-.02 [-.06, .02]	-.04 [-.08, .00]	-.03 [-.07, .00]	**.05** [.01, .09]	**.05** [.01, .09]	.03 [-.01, .07]	.03 [-.01, .07]
Direct effect	.21*** [.10, .32]	.21*** [.10, .32]	-.15** [-.26, -.04]	-.17** [-.28, -.06]	-.13* [-.24, -.02]	-.18** [-.29, -.07]	.21*** [.11, .32]	.22*** [.11, .33]	.25*** [.14, .36]	.28*** [.17, .38]
Total effect	.25*** [.14, .35]	.24*** [.14, .35]	-.17** [-.28, -.07]	-.19*** [-.30, -.09]	-.17** [-.27, -.06]	-.21*** [-.31, -.11]	.26*** [.16, .36]	.27*** [.16, .37]	.28*** [.18, .38]	.30*** [.20, .40]

Note: Confidence intervals below coefficient values. PPR = Perceived partner responsiveness. ***$p < .001$, **$p < .01$, *$p < .05$.

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CHAPTER 5

General Discussion and Future Directions

A growing body of research suggests that close relationships are strongly associated with physical and psychological health (Slatcher & Selcuk, 2017). For example, one meta-analysis examining 148 empirical studies demonstrates that individuals with stronger social ties have a roughly 50% increased likelihood of survival and this ratio is comparable with other well-established risk factors such as smoking (Holt-Lunstad et al., 2010). Another meta-analysis showed that individuals who have higher quality marriages have better physical health and a lower risk of mortality (Robles et al., 2014). However, what could not be determined from these meta-analyses is which aspect of a close relationship leads to greater health and well-being. The current dissertation examines one of these relationship aspects—*perceived partner responsiveness*— as a crucial factor in affect regulation and psychological well-being.

Perceived partner responsiveness is conceptualized as a central organizing principle synthesizing diverse developmental and social theories of relationship (Reis, 2007). Yet, with a few exceptions (Cortes & Wood, 2017; Lin et al., 2019), there is not much investigation on the determinants of perceived partner responsiveness. Chapter 2 demonstrated that affect variability, as an indication of how well individuals regulate their emotions, might be a key determinant of perceived partner regard. More specifically, greater fluctuations in negative affect were associated with lower subsequent perceived regard. Moreover, the results from Chapter 2 have also suggested that the mean level of positive affect and a moderate amount of variability in positive affect were associated with increased perceived regard. Overall, this study highlighted the importance of considering affect dynamics like variability along with stable characteristics to

provide a complete picture of how emotional experiences are linked with perceived partner regard.

Building on the stress-buffering models (Cohen & Wills, 1985; Slatcher & Selcuk, 2017) and person-situation framework (Bolger & Zuckerman, 1995), Chapter 3 examined the moderating role of perceived partner responsiveness in daily affect regulation. Given the association between responsiveness and better self-regulatory processes (Sels et al., 2021), having a responsive partner may serve a homeostatic function that helps them to be less affectively responsive to daily negative and positive events (Gunaydin et al., 2016; Hill et al., 2020). Chapter 3 demonstrated that people who reported greater perceived partner responsiveness tend to have a greater positive affect and lower negative affect on average. Moreover, compared with individuals who reported lower levels of responsiveness, people who perceived their partners as highly responsive experienced less of an increase in their negative affect on stressors days than on non-stressor days. This study contributes to our growing understanding of the affective regulatory benefits of a responsive partner.

Chapter 4 further extends this line of research by investigating the buffering effects of perceived partner responsiveness against a specific stressor (i.e., division of household labor) and in a specific context (i.e., COVID-19). Using a longitudinal study during the early weeks of COVID-19, the current study suggested that greater perceived partner responsiveness was associated with lower unfairness of housework distribution which in turn predicted people's positive affect and sleep quality. Results from this study support the notion that perceived partner responsiveness also serves as a stress-buffering mechanism against internal stressors on well-being. Directions for future research regarding all three studies have been discussed in each of

the preceding chapters, accordingly. In the next section, broader research questions for future research are discussed.

Future Directions

Except for a few studies (Gunaydin et al., 2020; Tosyali & Harma, 2020), the majority of studies on the link between perceived partner responsiveness and well-being sampled North American participants in their studies including the sample from Chapter 2 and Chapter 3 of the current dissertation. Yet, relationship processes that were assessed in individualistic cultures might not generalize across more collectivistic cultures. Thus, an important question is whether perceived partner responsiveness is a universal phenomenon, or are there cultural differences in the way perceived partner responsiveness promotes health and well-being? To my knowledge, there is only one cross-cultural study trying to answer this question. A study by Tasfiliz and colleagues (2018) demonstrated that perceived partner responsiveness was linked to greater hedonic and eudaimonic well-being in the US and Japan, but the effects were more pronounced in the US sample. Future research should examine whether this cross-cultural difference was specific to psychological well-being outcomes or whether this effect can be generalized across different mental health and relational well-being outcomes.

Future research can also assess both perceived partner responsiveness and affective well-being via ecological momentary assessments. This will allow researchers to investigate variability in perceived partner responsiveness. Several studies have examined variability in relationship dynamics such as satisfaction (Arriaga, 2001) and attachment security (Girme et al., 2018) and found that variability in relationship dynamics has detrimental consequences on couples' relational well-being. More recently, one study has considered variability in perceived partner responsiveness and found that responsiveness variability predicted increases in

attachment anxiety among newly formed couples (Gunaydin et al., 2021). Therefore, it would be important to investigate whether variability in perceived partner responsiveness is also linked with adverse emotion regulation abilities such as increased emotional inertia or greater affective reactivity to daily events.

Future research could also examine the stress-buffering role of perceived partner responsiveness during important life transitions such as when couples had their first child or when one member of a couple has retired. This will allow researchers to understand whether perceiving one's partner as responsive will buffer against any stressor or whether the intensity of the stressor or the breadth of stressors one experiences influence the impact of perceived partner responsiveness on well-being. Lastly, based on the emerging literature on perceived partner responsiveness and emotion regulation, research should also aim to develop interventions targeting individuals who are low in perceived partner responsiveness.

Concluding remarks

The present dissertation examined the role of perceived partner responsiveness in well-being across adulthood using ecological assessment and longitudinal approaches. Collectively, these results contributed to our growing understanding of how perceived partner responsiveness is intertwined with our emotional experiences and well-being and opened up exciting opportunities for future research.

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APPENDIX 2.A
Perceived Partner Responsiveness

The next several questions are about your spouse/partner. Please circle the appropriate number for each item.

1 = A lot
2 = Some
3 = A little
4 = Not at all
8 = Refused / Missing

1) “How much does your spouse or partner really care about you?”

2) “How much does he or she understand the way you feel about things?”

3) “How much does he or she appreciate you?”

APPENDIX 2.B
Daily Affect

0 = None of the time
1 = A little of the time
2 = Some of the time
3 = Most of the time
4 = All of the time
7 = Don't know
8 = Refused / Missing

1) "Did you feel restless or fidgety?"
2) "Did you feel nervous?"
3) "Did you feel worthless?"
4) "Did you feel so sad nothing cheer up?"
5) "Did you feel that everything effort?"
6) "Did you feel hopeless?"
7) "Did you feel in good spirits?"
8) "Did you feel cheerful?"
9) "Did you feel extremely happy?"
10) "Did you feel calm and peaceful?"
11) "Did you feel satisfied?"
12) "Did you feel full of life?"
13) "Did you feel lonely?"
14) "Did you feel afraid?"
15) "Did you feel jittery?"
16) "Did you feel irritable?"
17) "Did you feel ashamed?"
18) "Did you feel upset?"
19) "Did you feel angry?"
20) "Did you feel frustrated?"
21) "Did you feel close to others?"

APPENDIX 2.C
Daily Negative Events (Almeida et al., 2002)

1 = Yes
2 = No
7 = Do Not Know
8 = Refused/Missing

1) “Did you have an argument or disagreement with anyone since (this time/we spoke) yesterday?”

2) “Since (this time/we spoke) yesterday, did anything happen that you could have argued about but you decided to let pass in order to avoid a disagreement?”

3) “Since (this time/we spoke) yesterday, did anything happen at work or school (other than what you already mentioned) that most people would consider stressful?”

4) “Since (this time/we spoke) yesterday, did anything happen at home (other than what you already mentioned) that most people would consider stressful?”

5) “Many people experience discrimination on the basis of such things as race, sex, or age. Did anything like this happen to you since (this time/we spoke) yesterday?”

6) “Since (this time/we spoke) yesterday, did anything happen to a close friend or relative (other than what you’ve already mentioned) that turned out to be stressful for you?”

7) “Did anything else happen to you since (this time/we spoke) yesterday that people would consider stressful?”

APPENDIX 2.D
Daily Positive Events (Almeida et al., 2002)

1 = Yes
2 = No
7 = Do Not Know
8 = Refused/Missing

1) “Did you have an interaction with someone that most people would consider particularly positive (for example, sharing a good laugh with someone, or having a good conversation) since (this time/ we spoke) yesterday?”

2) “Since (this time/we spoke) yesterday, did you have an experience at (work/volunteer position) that most people would consider particularly positive?”

3) “Since (this time/we spoke) yesterday, did you have an experience at home that most people would consider particularly positive?”

4) “Since (this time/we spoke) yesterday, did anything happen to a close friend or relative (other than what you've already mentioned) that turned out to be particularly positive for you?”

5) “Did anything else happen to you since (this time/we spoke) yesterday that most people would consider particularly positive?”

APPENDIX 4.A

Daily Positive and Negative Affect (Watson et al., 1988)

"How much did you feel these emotions today?"

1----------2----------3----------4----------5----------6----------7----------8----------9
Not at all Extremely

1) Distressed
2) Excited
3) Angry
4) Interested
5) Dejected
6) Cheerful
7) Ashamed
8) Alert
9) Nervous
10) Happy
11) Sad
12) Proud

APPENDIX 4.B

Perceptions of the Partner's Regard for the Self (Murray et al., 1996)

Participants were asked how much they thought their partner saw them on the following interpersonal qualities.

1) "kind and affectionate"
2) "open and disclosing"
3) "patient"
4) "understanding"
5) "responsive to my needs"
6) "tolerant and accepting"
7) "complaining"
8) "self-assured"
9) "critical and judgmental"
10) "lazy"
11) "controlling and dominant"
12) "emotional"
13) "moody"
14) "sociable"
15) "thoughtless"
16) "extraverted"
17) "irrational"
18) "distant"
19) "childish"
20) "intelligent"
21) "witty"

APPENDIX 4.C
Demographic Questions

1) What is your date of birth?

2) What is your gender?

1 = Female
2 = Male

3) What is your current marital status?

1 = married
2 = single/never married
3 = divorced
4 = widowed

4) How long have you and your partner been together?

5) What is your current marital status?

1 = married
2 = single/never married
3 = divorced
4 = widowed

6) How many children do you have?

7) Are you employed?

1 = Yes
2 = No

8) What is your highest level of education?

1 = Less than high school graduate
2 = High school graduate or GED
3 = Associate's degree
4 = Bachelor's degree
5 = Graduate, doctorate, or professional degree

9) What is your personal income per year?
1 = Less than $25,000
2 = $25,000-$50,000
3 = $50,001-$75,000
4 = $75,001-$100,000

5 = $100,001-$125,000
6 = $125,001-$150,000
7 = $150,001-$175,000
8 = $175,001-$200,000
9 = Over $200,000