

How Situational Mindfulness During Conflict Stress Relates to Well-Being

Heidemarie K. Laurent^{1,2} · Sean M. Laurent^{1,2} · April Lightcap² · Benjamin W. Nelson²

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Abstract Mindfulness has typically been studied within the individual, yet its benefits may be particularly important in the context of interpersonal relationships and managing the stress that arises in these relationships. This study examined effects of mindfulness during relationship conflict on romantic partners' global well-being and the mediating role of positive/negative affect surrounding the conflict. Adult heterosexual couples (103 dyads) participated in two laboratory sessions, the second involving a conflict resolution task. The curiosity component of mindfulness during conflict predicted partners' well-being via increased positive affect surrounding the conflict. These effects emerged while controlling for general trait mindfulness, highlighting a unique effect of mindfulness during conflict. No effects for the decentering component of mindfulness or for negative affect were found. Implications for understanding mindfulness mechanisms in positive psychosocial functioning and targeting mindfulness interventions are discussed.

Keywords Mindfulness · Stress · Romantic relationship · Conflict · Positive affect · Well-being

Introduction

Training in mindfulness—defined as intentional present-moment, nonjudgmental awareness (Kabat-Zinn 1990)—is

becoming increasingly common in healthcare and community settings as a means of improving psychosocial functioning. Indeed, a qualitative review of mindfulness research that included both individual differences in trait mindfulness and effects of mindfulness interventions supported an array of positive psychological effects including increased well-being (Keng et al. 2011). The majority of this research approaches mindfulness at the level of the individual, yet its benefits may be particularly important in the context of interpersonal relationships (Uchino et al. 2016). Indeed, given well-established links between relationship health and mental/physical health across the lifespan (e.g., Holt-Lunstad et al. 2010; Pietromonaco et al. 2013), it is critical to determine when and how mindfulness in relationships aids in coping with difficulties that arise.

A better understanding of how mindfulness impacts psychosocial functioning requires attention to the ways in which people cope with stress within close relationships. There is evidence that mindfulness influences the way partners respond to relational discord; a mindfulness-based intervention has been shown to affect participants' subjective response to marital conflict (i.e., reducing hostility and contempt), and trait mindfulness has been shown to predict less negative emotions surrounding couples conflict (Barnes et al. 2007; Kemeny et al. 2012). Most of this prior work involves generalized mindfulness effects—either group differences based on participation in an 8-week mindfulness intervention or trait mindfulness associations—without examining participants' mindfulness during a specific challenge scenario.

To determine how mindfulness operates, it is important to distinguish situational or state mindfulness effects from those of trait mindfulness. Much of previous mindfulness research approaches the construct as either a process unfolding in the moment (state) or a set of individual differences qualities (trait). However, studies that consider both state and trait

✉ Heidemarie K. Laurent
hlaurent@uoregon.edu

¹ University of Wyoming, Laramie, WY, USA

² Present address: Department of Psychology, University of Oregon, 1227, Eugene, OR 97403, USA

mindfulness suggest that these are related but separate constructs (e.g., Brown and Ryan 2003). Whereas researchers found a nonsignificant relation between state and trait mindfulness at the start of a mindfulness intervention, the association strengthened over time, with growth in state mindfulness predicting trait mindfulness postintervention (Kiken et al. 2015). Other research has shown that effects of trait mindfulness on behavior were transmitted via state mindfulness during the activity (Tsafou et al. 2016). We might expect that the process of repeatedly engaging mindfully with a particular type of situation translates over time into more stable qualities, which in turn provide the grounding for mindful engagement in a given moment. State and trait mindfulness may also function differently in relation to subjective well-being, with the former more directly linked to in-the-moment adjustment (Jislin-Goldberg et al. 2012). To understand the foundations of psychological health, research must clarify the function of state mindfulness in the situations that, over time, profoundly impact well-being.

As a more specific instance of state vs. trait investigation, it is important to clarify unique effects of state mindfulness during relationship stress, given persistent reciprocal links between unskillful responses to relationship conflict and psychological distress (e.g., Laurent et al. 2009; Whitton et al. 2007). While Barnes et al. (2007) found an effect of self-reported mindfulness during relationship conflict on partners' quality of conflict communication, the study did not control for trait mindfulness to determine the specificity of situational mindfulness effects, and it did not assess functional outcomes beyond the conflict. Another study demonstrated unique effects of daily mindfulness, over and above trait mindfulness, on well-being via perceived stress and coping, but it did not assess mindfulness specifically during stress (Weinstein et al. 2009). Thus, while there are separate lines of research addressing (a) state vs. trait mindfulness effects, and (b) mindfulness effects on response to relationship stress, research that simultaneously addresses both is needed to discern whether mindfulness during relationship conflict carries a unique benefit for well-being.

Beyond establishing the potential benefits of context-specific mindfulness, it is important to identify potential mechanisms by which it may operate. A number of mindfulness mechanisms have been identified, including changes in neural, cognitive, and emotional reactivity induced by mindfulness practice (e.g., Batink et al. 2013; Gu et al. 2015; Paul et al. 2013). In a given stress situation, differences in positive and/or negative affect may represent a common pathway by which such mindfulness-related changes are detectable (Erisman and Roemer 2010). For example, brief mindfulness interventions have been shown to predict better affective balance (greater positive to negative affect ratio) following recollection of a stressful experience (Cassin and Rector 2011; Ramos Diaz et al. 2014). Trait mindfulness has also been

associated with improved affective and physiological regulation in response to a standard stress paradigm, the Trier Social Stress Test (Brown et al. 2012), and there is evidence that trait mindfulness works through positive and negative affect following social interactions to impact participants' sense of social connection (Quaglia et al. 2014).

In the context of romantic relationships, affect during conflict is known to play an important role in partners' well-being (e.g., Ellison et al. 2016; Laurent et al. 2009). However, no research has yet connected these dots by testing potential links from mindfulness during relationship conflict to well-being via affect. It is important to know if positive and/or negative affect in a conflict situation explains global benefits in order to refine mindfulness intervention outcome measures. It is also important to identify which component/s of mindfulness might matter for which outcomes.

Measures of state mindfulness differentiate a decentering component (i.e., stepping back from experience in order to observe it without getting caught up in it) from a curiosity component (i.e., openness to what arises, taking a nonjudgmental stance toward experience). There is conflicting evidence for whether decentering and/or curiosity qualities matter for positive vs. negative affective outcomes (Lau et al. 2006; Mackenzie et al. 2013; Schroevers and Brandsma 2010). It has been suggested that mindfulness relates to positive emotion via decentering, which allows positive reappraisal of stressors (Garland et al. 2009), but this has not been definitively established. Others have proposed that nonreactivity and nonjudgment buffer the effects of daily stress on mood (Ciesla et al. 2012). Further clarity about whether a particular aspect of mindfulness should be targeted to increase resilience against relationship stressors could advance our knowledge in useful ways.

Taken together, the above research suggests that mindfulness during relationship conflict predicts improved behavioral/subjective experiences of conflict and that trait mindfulness effects on well-being may be mediated by emotions surrounding social interactions. What is not yet known is whether (a) situational mindfulness during relationship conflict exerts effects on well-being independent of trait mindfulness and (b) particular aspects of mindfulness work through positive and/or negative affect to explain these effects. It is important to fill these gaps in order to determine how mindfulness can promote well-being in the face of relationship stress, and to tailor interventions accordingly.

The present study attempts to clarify how mindfulness in the context of relationship stress might influence global well-being. In particular, we addressed the following questions in a community sample of young adult romantic couples: Are there unique effects of state mindfulness during conflict—specifically, of decentering and/or curiosity components—on well-being, above and beyond those explained by trait mindfulness? Are these links mediated by differences in positive

and/or negative affect? Based on the above literature, we predicted that mindfulness during conflict would relate to global well-being via improved affective states (higher positive and/or less negative affect) following conflict and that this effect would hold even after controlling for trait mindfulness.

Method

Participants

Heterosexual couples ($n=114$) from a small university town in the western region of the USA were recruited through an online student research participant pool and community flyers to participate in a two-part study of romantic relationships (see below). Informed consent was obtained from all individual participants included in the study. To be eligible, participants had to be at least 18 years old ($M=21.31$, $SD=6.12$) and in a romantic relationship for at least 2 months ($M=2.2$ years). Most couples (93 %) reported that they were in an exclusive committed relationship and reported that they were moderately satisfied with the relationship ($M=106.31$, $SD=19.41$ on the Dyadic Adjustment Scale). Reflective of the region from which the sample was drawn, the majority of participants (83 %) were Caucasian. The current study is based on the subset of participants ($n=103$ couples) who participated in both sessions and completed all of the measures described below. A comparison of these participants with those not included in the final sample revealed no significant differences on demographic and study variables.

Procedure

Couples completed questionnaire measures of trait-like constructs (including trait mindfulness) during an initial hour-long lab session. During the second session, scheduled approximately 1 week later and lasting 1.75 h, couples completed the conflict discussion task and responded to questionnaires assessing affect directly before and after the conflict, as well as measures of mental health (including well-being). Except for during the conflict discussion, partners were placed in separate rooms.

Early in the second session, participants were given a vivid description of the conflict task—prior to this, they only knew they would engage in a recorded interaction, not that the interaction would involve conflict—and were individually asked to nominate a topic of unresolved conflict in the relationship. One of the conflict topics (i.e., the one nominated by the male or the female partner) was selected by coin toss for later discussion. Before the conflict discussion, participants were instructed using both written material and an audio-guided exercise to approach the conflict task in one of three ways: by attending mindfully to whatever arose (mindfulness

condition), by taking the perspective of their partner (PT condition), or by focusing on their own thoughts and feelings about the issue (control condition). Because condition did not consistently influence state mindfulness (effect found for male decentering only) and controlling for it did not change the effects described below, it was not included in reported models. In addition, tests of condition-specific effects (via multigroup analysis in MPlus) suggested no group differences in reported paths.

After being informed which topic had been chosen, partners were brought together and given 15 min to discuss and attempt to resolve the chosen issue. Following the discussion, partners were again escorted to separate rooms to complete questionnaires.

Measures

State Mindfulness During Conflict Stress The Toronto Mindfulness Scale (TMS; Lau et al. 2006) assesses mindfulness during a specified time period—in this investigation, participants were asked to rate their experience during the preceding conflict discussion on a scale from 0 (not at all) to 4 (very much). Six items measured curiosity (example: “I remained curious about the nature of each experience as it arose,” subscale $\alpha=.88$ in current sample), and seven items tapped decentering (example: “I was aware of my thoughts and feelings without over-identifying them,” subscale $\alpha=.69$).

Trait Mindfulness The Five Facet Mindfulness Questionnaire (FFMQ; Baer et al. 2006) assesses dispositional mindfulness qualities. Participants rated how often each of 39 items was true for them in their daily lives on a scale from 1 (never or very rarely true) to 5 (very often or always true). Although the FFMQ can yield five individual subscale scores, these scores are often combined to give a total mindfulness score, as in the current investigation ($\alpha=.86$).

Affect The Positive and Negative Affect Schedule (PANAS; Watson et al. 1988) is a 20-item measure of various emotion states, 10 positive and 10 negative. Participants completed the scale directly before and after the conflict discussion. Each time, they were asked to rate the extent to which they were presently experiencing each emotion on a scale from 1 (very slightly or not at all) to 5 (extremely). Alphas were .89 and .88 for posttask positive and negative affect, respectively (.89 and .83 for pre-task positive and negative affect).

Well-Being The World Health Organization Well-Being (WHO-WB) Scale (Bech et al. 2003) uses five items rated on a scale from 1 (some of the time) to 5 (all the time) to assess mental and physical well-being. For each item, participants indicate how they feel “in general.” This scale has been found

superior to symptom-focused scales in differentiating people with deteriorating health from those who maintain good health ($\alpha = .78$).

Data Analyses

Mplus (Muthén and Muthén 2007) models specified for clustered data—in this case, individuals clustered within dyads—were used to test hypothesized paths from state mindfulness during the conflict discussion (TMS curiosity and decentering) to well-being via postconflict affect. Because models examining male and female partners separately revealed the same pattern of effects, partners were included together in reported models while accounting for dyadic dependency. All models controlled for participants' trait mindfulness (total FFMQ scores).

Results

Table 1 provides descriptive information for all study measures. Table 2 shows correlations among measures. An initial MPlus model testing paths from state mindfulness during conflict to well-being confirmed a significant total effect of curiosity ($b = .20$, $SE = .068$, $p = .004$) but no effect of decentering ($b = .007$, $SE = .100$, ns) on well-being. The next step of model testing added paths from state mindfulness to postconflict affect and from postconflict affect to well-being. No significant paths involving negative affect were found, so the following models focused on positive affect as a potential mechanism of mindfulness effects.

When postconflict positive affect was included in the model, the direct path from curiosity to well-being was no longer significant ($b = .095$, $SE = .062$), and the removal of this path did not alter model fit, $\Delta\chi^2(1) = 2.51$, ns . Curiosity during the conflict predicted higher postconflict positive affect ($b = .40$, $SE = .086$, $p < .001$), which in turn predicted greater well-being ($b = .29$, $SE = .058$, $p < .001$). The indirect effect of curiosity on well-being via postconflict positive affect was significant ($b = .12$, $SE = .040$, $p = .004$). The direct path from

decentering to postconflict positive affect was not significant ($b = .048$, $SE = .108$, ns), and neither was the indirect path to well-being ($b = .014$, $SE = .031$, ns). This model showed excellent fit to the data, $\chi^2(2) = 2.52$, ns ; RMSEA = .036; CFI = .99. Although trait mindfulness also related to positive affect and well-being, unique effects of curiosity during the conflict on postconflict affect, and of postconflict affect on well-being, remained (see Fig. 1). In contrast to the state mindfulness effect on well-being, which was fully mediated by positive affect, the effect of trait mindfulness on well-being appeared to be only partially mediated (indirect path $b = .074$, $SE = .036$, $p = .039$; direct path $b = .41$, $SE = .11$, $p < .001$).

Secondary models that included pre-conflict affect scores were also examined to determine the extent to which effects were specific to participants' affective state following conflict. When pre-conflict positive affect was included in the model as a predictor of both postconflict affect and well-being, the indirect effect of curiosity became marginally significant ($b = .040$, $SE = .023$, $p = .081$). On the other hand, the indirect path from curiosity to well-being via pre-conflict positive affect (controlling for postconflict affect) was nonsignificant ($b = -.014$, $SE = .013$, $p = .28$). This suggests that while the impact of mindfulness on well-being was not specific to postconflict affect and likely involved broader affective tendencies, there was greater evidence for a unique mediating effect of affect following (as opposed to preceding) the conflict stressor.

Discussion

This study extends the research base on the benefits of mindfulness by demonstrating that mindfulness during romantic relationship conflict predicts global well-being via increased positive affect. By highlighting unique effects of situational mindfulness during conflict, independent of dispositional mindfulness, this work supports the value of going beyond commonly used individual difference mindfulness metrics (i.e., participation in a mindfulness intervention, trait mindfulness) to investigate mindfulness in the context of relationship stress.

A critical aim of this study was to distinguish the influence of mindfulness during relationship conflict stress from the broader influence of dispositional mindfulness. We detected state mindfulness effects independent of trait mindfulness, which had parallel but unique effects that were not fully explained by affect surrounding the conflict. This confirms that mindfulness specifically during relationship stress exposure, and not simply the person's overall (context-free) level of mindfulness, is important for psychosocial functioning.

Based on these findings, mindfulness research should do more to distinguish context-specific mindfulness from more general (trait) mindfulness, which—consistent with prior

Table 1 Study variable descriptives

Variable	Mean	SD
TMS curiosity	2.10	.87
TMS decentering	1.91	.64
FFM mindfulness total	3.44	.44
Pre-conflict positive affect	2.95	.80
Pre-conflict negative affect	1.71	.58
Postconflict positive affect	3.02	.84
Postconflict negative affect	1.56	.65
Global well-being	3.39	.68

Table 2 Correlations among study variables

	1.	2.	3.	4.	5.	6.	7.	8.
1. TMS curiosity	–							
2. TMS decentering	.60**	–						
3. FFM mindfulness	.16*	.11	–					
4. Pre-conflict positive affect	.29**	.20**	.23**	–				
5. Pre-conflict negative affect	.053	–.006	–.29**	.094	–			
6. Postconflict positive affect	.46**	.30**	.21**	.75**	.10	–		
7. Postconflict negative affect	–.034	.045	–.18**	.005	.55**	–.14*	–	
8. Global well-being	.31**	.19**	.35**	.42**	–.11	.42**	–.17*	–

research (e.g., Kiken et al. 2015)—we found to be related but separable constructs. Future studies should probe the factors that cause situational mindfulness to diverge from trait mindfulness. These may include both individual differences in values/motivation (e.g., individuals who place a high value on maintaining relationships may approach conflict with a more accepting attitude, regardless of broader mindfulness qualities) and state-specific variables (e.g., attentional focus going into conflict, partner behaviors during conflict). These results further suggest that interventions to improve well-being should emphasize training the ability to maintain an open, curious attitude during stressful situations that arise in close relationships, and measure outcomes within such situations to better gauge quality of life impacts.

We further showed that the effect of mindfulness during conflict was mediated by increased positive affect. Previous research suggests that mindfulness may help to maintain positive affect during conflict stress via several intervening cognitive and behavioral mechanisms. First, we would expect more mindful partners to show better cognitive self-regulation while processing emotional information, which in turn allows more positive affect to emerge from the interaction (Quaglia et al. 2014). It is also likely that greater mindfulness during conflict translates into more constructive conflict behaviors and less damage to partners' feelings about each other and/or the relationship (Barnes et al. 2007; Kemeny et al. 2012).

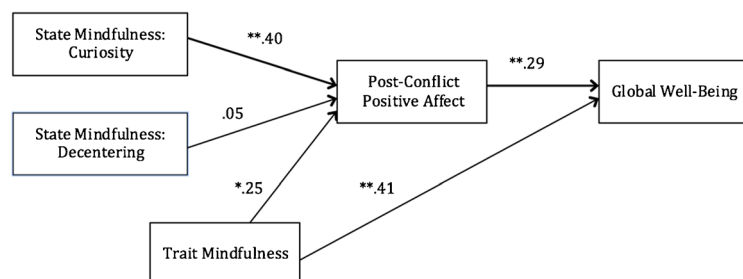
Importantly, in the present study, it was the curiosity component of mindfulness—maintaining an open, nonjudgmental

stance toward unfolding experience—that had an effect, rather than the decentering component. There is evidence that acceptance (compared to suppression) makes processing negative emotional material less effortful (Alberts et al. 2012); this may afford partners the cognitive resources to become more aware of positive cues (and to be less threatened by negative cues) during and after a conflict discussion. Over time, repeated experiences of positivity in the face of stress may reduce costly physiological reactivity and bolster mental and physical well-being.

Besides highlighting a particular component of mindfulness as a source of effects, this study underlines the importance of positive (as opposed to negative) affect in explaining individual differences in well-being. Although the term “well-being” is commonly used to describe both the absence of negative and the presence of positive functional outcomes, these findings confirm that the latter is critical to the larger construct. The current results further suggest that stress-related mindfulness effects not only are wholly specific to poststress affect but also have to do with anticipatory affect. This is consistent with a previous study that related trait mindfulness to reduced emotional stress both preceding and following conflict (Barnes et al. 2007). It is plausible that prior experience with undergoing conflict mindfully engenders a more positive anticipatory state, in addition to shaping feelings after conflict is over. Such a positive state may in turn facilitate mindfulness during the discussion.

Because baseline affect measures outside of the conflict situation were unavailable in this study, we cannot be certain

Fig. 1 Final path model results: mindfulness during conflict predicts partners' well-being via increased positive affect following the conflict discussion



Note. * $p < .05$; ** $p < .01$. Indirect path from curiosity to well-being $b = .12$, $SE = .040$, $p = .004$; from decentering to well-being $b = .014$, $SE = .031$, ns ; and from trait mindfulness to well-being $b = .074$, $SE = .036$, $p = .039$.

that effects did not reflect more general affective tendencies. Still, finding stronger effects of postconflict (compared to pre-conflict) affect argue for some specificity to conflict-related processes, and prior research has established unique associations between state mindfulness and state positive affect that cannot be explained by trait mindfulness or affect (Brown and Ryan 2003; Jislin-Goldberg et al. 2012). More fine-grained research designs that can trace cascades of cognitive-affective loops from stress anticipation through recovery will be needed to shed further light on these processes.

It is interesting that state mindfulness during the conflict did not relate to negative affect, though trait mindfulness did. Although the current study design does not allow for a definitive explanation of this difference, it is possible that the process of engaging mindfully in conflict does more to allow positive affect to emerge in the moment, whereas the down-regulation of negative affect may depend on the longer-term accumulation of mindfulness qualities. Consistent with this, mindfulness has been shown to reduce depression vulnerability via reductions in cognitive (i.e., rumination, negative bias) and neural mechanisms that take time to change (Paul et al. 2013). Differential associations with state and trait measures in this study may also have to do with scale differences; the TMS does not tap facets of mindfulness—i.e., acting with awareness, describing internal experience—captured by the FFMQ that may be critical to reducing negative emotional states.

Limitations of the present study should be used to inform future steps in this line of research. First, this research was conducted in a group of young, relatively well-adjusted heterosexual couples, and generalizability to more established married couples and/or those experiencing significant distress is unknown. On the one hand, mindfulness may not make as much of a dent in the face of entrenched relationship difficulties; on the other hand, the benefits of mindfulness may become more salient in such contexts, and cumulative effects on well-being may become stronger over time. Further research with a wider range of partner demographics and individual/dyadic adjustment would help to clarify these issues.

It is important to note that we examined measured (rather than manipulated) variables, which precludes strong causal statements. Even though controlling for stable or pre-stress factors helped with specifying conflict-related effects, it would be ideal to replicate effects using an experimental manipulation. The brief (10-min) mindfulness induction used in this study did not appear to constitute a sufficient “dose” to reliably increase participants’ mindfulness during the conflict, but longer and/or more intensive interventions could potentially do so. It is also possible that the induction fostered mindfulness in some participants and not in others, and future investigations may shed light on moderators of laboratory mindfulness induction effects. The measurement of situational mindfulness could also be expanded—e.g., by considering

observer ratings of behaviors during conflict and/or partner perceptions of mindfulness qualities—to better understand the subjective and objective processes involved in mindfulness-related coping. Finally, the fact that we found an effect only for the curiosity component of mindfulness does not mean that the decentering component is unimportant. It could be that decentering matters more for other types of stress situations and/or functional outcomes, and these possibilities should be investigated.

The present study provides an important bridge between previous knowledge about the long-term benefits of mindfulness on the one hand and in-the-moment coping processes on the other. Though stress and conflict are inevitable, mindfulness applied in the moment provides a pathway to greater well-being that is universally available. By illuminating such a pathway, this work helps to understand how and why mindfulness matters in the moments when it is needed most.

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Compliance with Ethical Standards

Ethical Approval All procedures performed in this study were in accordance with the ethical standards of the Institutional Review Board and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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

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