

Adding Insult to Injury: Partner Depression Moderates the Association Between Partner-Regulation Attempts and Partners' Motivation to Resolve Interpersonal Problems

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Baker, L. R., & McNulty, J. K. (2015). Adding insult to injury: partner depression moderates the association between partner-regulation attempts and partners' motivation to resolve interpersonal problems. *Personality and Social Psychology Bulletin*, 41(6), 839–839. Copyright © 2015 Society for Personality and Social Psychology, Inc. DOI: 10.1177/014616721558572

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Abstract:

Intimates regularly confront their partners to motivate them to change undesirable behaviors. Nevertheless, contextual perspectives suggest that qualities of the partner may determine the implications of such attempts. Consistent with these ideas, a pilot study of romantic relationships, an observational study of newlyweds, and a diary study of married couples demonstrated that partner depression moderates the association between confrontational partner-regulation behaviors and partners' motivation, such that confrontational behaviors were associated with marginally greater motivation to resolve problems among partners who were experiencing relatively few depressive symptoms, but significantly less motivation among partners who were experiencing relatively more depressive symptoms. Furthermore, Study 2 provided evidence for the mechanism of these effects—relationship self-efficacy. Finally, these studies also demonstrated that benevolent behaviors were particularly motivating for partners who were experiencing more depressive symptoms. These findings highlight the important roles played by depression, relationship self-efficacy, and context in interpersonal communication.

Keywords:

romantic relationships | partner-regulation | motivation | depression | self-efficacy

Article:

Over the course of a long-term relationship, partners will inevitably behave in ways that create problems in their relationship. For example, partners will occasionally neglect household responsibilities, make decisions without consulting one another, ignore each other's needs, and may even engage in more serious transgressions, such as infidelity or intimate partner violence. Accordingly, intimates frequently try to regulate such problematic behaviors. For example, intimates might express anger about a behavior, point out that the behavior leads to problems in the relationship, or demand that the partner change the behavior. Although such confrontational behaviors can be distressing for both partners initially (Heyman, 2001), recent longitudinal research has demonstrated that they are positively associated with relationship quality over time (e.g., McNulty & Russell, 2010; Overall, Fletcher, Simpson, & Sibley, 2009). The presumed, although untested, mechanism of such effects is that these behaviors motivate partners to correct their problematic behaviors.

Nevertheless, contextual theories of communication (e.g., Bradbury & Fincham, 1991; Fincham, 2003; McNulty & Fincham, 2012; Zayas, Shoda, & Ayduk, 2002) suggest individuals differ in how they respond to specific communication behaviors. With respect to confrontation, there is reason to believe that partners experiencing depressive symptoms may respond in exactly the opposite way. Specifically, given that people experiencing depression tend to internalize their problems, confrontation may lead such partners to doubt their ability to change a problematic behavior and thus become less motivated to change that behavior. We conducted three studies to address this possibility.

Confrontational Partner-Regulation Behaviors May Increase the Motivation to Change

Partner-regulation behaviors refer to behaviors intended to communicate a desire for the partner to change. Such behaviors can take numerous forms (see Overall et al., 2009; Turner, 1991; for similar discussion, see literature on social control; Lewis & Rook, 1999). For example, intimates regularly encourage, provide advice to, and validate one another with the goal of helping one another grow and succeed (Lewis & Rook, 1999; Turner, 1991). Yet, not all partner-regulation behaviors are so benevolent. Other times, intimates directly confront and challenge one another by engaging in behaviors intended to convey disapproval. For example, previous research reveals that intimates sometimes attempt to change their partners by blaming them, criticizing them, making demands, expressing anger or hurt feeling, and invalidating their perspective (e.g., Bradbury & Fincham, 1990; McNulty & Russell, 2010; Overall et al., 2009). Although there are distinctions among these behaviors, one commonality is that they tend to evoke distress in the partner (e.g., Heyman, 2001; Overall et al., 2009).

Early social learning models suggest such confrontational partner-regulation behaviors harm the relationship (e.g., Jacobson & Margolin, 1979). Nevertheless, there are theoretical

reasons to expect that such behaviors may motivate change. For example, classic drive reduction perspectives (Hull, 1943; Maslow, 1955) posit that the negative emotions resulting from aversive stimuli (e.g., pain) and basic needs (e.g., hunger) drive people to avoid or reduce the source of those emotions (e.g., avoid pain, relieve hunger). Likewise, evolutionary perspectives (e.g., Nesse & Ellsworth, 2009; Tooby & Cosmides, 2008) posit that negative emotions shift perception and attention toward potential threats and motivate people to prevent or resolve problems associated with such threats. Consistent with the idea that aversive interpersonal events can be similarly motivating, Leary, Tambor, Terdal, and Downs (1995) proposed that decreases in self-esteem produce negative emotions that motivate attempts to increase relational value. Confrontational partner-regulation behaviors may motivate partners for similar reasons (see Overall et al., 2009); intimates who become distressed about upsetting their partners may be particularly motivated to change their problematic behavior.

A growing body of research is consistent with this possibility (e.g., Karney & Bradbury, 1997; McNulty & Russell, 2010; Meltzer, McNulty, & Karney, 2012; Overall et al., 2009). For example, Overall and colleagues (2009) demonstrated that although direct negative behaviors such as expressions of anger, derogation, and blaming were perceived to be less successful and associated with greater distress initially, they were associated with a greater reduction of problems over the course of a year. Similarly, McNulty and Russell (2010) demonstrated that confrontational behaviors, such as blaming, rejecting, and making demands, were associated with decreases in problem severity and thus more stable marital satisfaction over the first 4 years of marriage among newlyweds facing more severe problems. Nevertheless, although these results are consistent with the idea that such improvements emerged because confronted partners were more motivated to change their problematic behavior, we are aware of no research that has directly examined the implications of confrontational partner-regulation behaviors for partners' motivations.

The Contextual Nature of Communication

Although this recent research suggests that confronted partners may become more motivated to change their problematic behavior on average, not everyone may respond so favorably to confrontation. In particular, contextual theories of communication (e.g., Bradbury & Fincham, 1991; Fincham, 2003; McNulty & Fincham, 2012; Zayas et al., 2002) suggest that whether specific communication behaviors benefit or harm relationships may depend on contextual factors, such as qualities of the (a) relationship, (b) problems being addressed, (c) external environment, and (d) partners. With respect to the latter, and in line with the idea that behaviors are determined jointly by qualities of individuals and their situations (Lewin, 1935; Mischel & Shoda, 1995), Zayas and colleagues (2002) argued that close partners are a critical aspect of one another's social environment and thus determine how their personality characteristics manifest into behavior. According to their conceptualization, how a partner responds to communication behaviors should depend on qualities of the communication behavior and the partner.

In line with these ideas, a growing body of work demonstrates that the implications of various communication behaviors depend on qualities of the partners (e.g., Ford & Collins, 2010; Lemay & Dudley, 2011; Luchies, Finkel, McNulty, & Kumashiro, 2010; McNulty, 2008; McNulty & Russell, 2010; Meltzer et al., 2012; Murray, Rose, Bellavia, Holmes, & Kusche, 2002; Overall & Sibley, 2009; Overall, Girme, Lemay, & Hammond, 2014; Simpson & Overall, 2014). For example, Overall and Sibley (2009) demonstrated that, compared with securely attached individuals, anxiously attached individuals distanced themselves more from their partners when they perceived they had little control in conversations with their partners, whereas avoidantly attached individuals avoided relationship-enhancing behaviors when they perceived their partners were exerting control during their conversations. Similarly, Murray and colleagues (2002) demonstrated that although being confronted about a relationship problem led low self-esteem intimates to derogate and decrease their intimacy with their partners, confronted intimates with high self-esteem continued to view their partners favorably.

Partner Depressive Symptoms May Determine the Motivational Implications of Partner-Regulation Behaviors

One partner quality that may be particularly important for determining the implications of confrontation for partners' motivation to resolve problematic behavior is the partner's depressive symptoms. Given that confronting a partner through blames, anger, and/or commands signals to that partner that he or she is the source of a relationship problem, confronted partners should be more likely than non-confronted partners to make internal attributions for the problem being targeted. Indeed, a robust body of work demonstrates that individuals who receive feedback suggesting they are responsible for failures make more internal attributions for those failures than do those who receive feedback suggesting that they are not responsible (e.g., Dweck, 1975; Le Foll, Rasclé, & Higgins, 2008). But the types of internal attributions that depressed partners make when confronted are likely very different than the types of internal attributions that non-depressed partners make when confronted. In particular, attributional theories of depression and a robust body of supportive research (e.g., Abramson, Seligman, & Teasdale, 1978; Seligman, Abramson, Semmel, & von Baeyer, 1979; Sweeney, Anderson, & Bailey, 1986) suggest that individuals experiencing depression tend to make more stable attributions for their failures whereas individuals who are not experiencing depression tend to make more unstable attributions. Accordingly, although confrontational behaviors may lead both depressed and non-depressed partners to make more internal attributions for relationship problems, depressed partners should make more stable internal attributions whereas non-depressed individuals should make more unstable internal attributions.

These different attributional tendencies should lead depressed versus non-depressed partners to experience different levels of relationship self-efficacy in response to confrontation, which should ultimately predict their motivation to address their relationship problems. A sizable literature indicates that individuals who make unstable internal attributions continue to have

confidence in their abilities, whereas individuals who make stable internal attributions for their problems tend to doubt their ability to resolve those problems (e.g., Anderson, 1983; Fincham & Bradbury, 1987), and such differences in self-efficacy should have implications for partners' motivations to resolve their relationship problems. Indeed, another sizable body of work indicates that low levels of self-efficacy undermine individuals' motivations to resolve problems (L. Baker & McNulty, 2010; Bandura & Wood, 1989; Wood & Bandura, 1989). Accordingly, whereas confrontational behaviors should motivate non-depressed partners because they should make such partners feel distressed about relationship problems they believe they are capable of resolving, such behaviors may decrease the motivation of depressed partners because they should make such partners feel distressed about relationships problems they do not believe they are capable of resolving.

If confrontational partner-regulation behaviors do decrease depressed partners' motivation to resolve interpersonal problems, how can intimates motivate depressed partners to correct their problematic behavior? One effective strategy may be to support and encourage such depressed partners during discussions of relationship problems. Specifically, given that mood and cognitive styles are contagious (Jehn, Rispens, Jonsen, & Greer, 2013; see Joiner & Katz, 1999), depressed partners may become more confident in their ability to resolve problems to the extent that intimates behave in a positive and encouraging manner toward them. Indeed, simply interacting with positive individuals can help depressed people resolve problems (e.g., Horvath & Symonds, 1991). Consequently, depressed individuals may be more optimistic about their ability to resolve problems, and thus more motivated to do so, to the extent that their partners behave in a more benevolent manner. Consistent with this possibility, recent research indicates that exaggerated affective expressions can lead insecure partners to feel particularly valued (Lemay & Dudley, 2011).

Overview of the Current Studies

Given these theoretical arguments, we conducted three studies that tested the interactive effects of intimates' benevolent and confrontational problem-solving behaviors and partners' depressive symptoms for partners' motivation to resolve relationship problems. In the pilot study, we assessed participants' perceptions of their partners' benevolent and confrontational partner-regulation behavior, their own depressive symptoms, and their own motivation to resolve relationship problems. In Study 1, newlywed couples reported their depressive symptoms and engaged in problem-solving discussions that were coded for confrontational and benevolent partner-regulation behavior and the extent to which intimates appeared motivated to resolve their problems. In Study 2, married couples reported their depressive symptoms, the extent to which they engaged in confrontational and benevolent partner-regulation behaviors, and their relationship self-efficacy at baseline, and their motivation to resolve their relationship problems every day for 2 weeks. Given that little prior research has examined intimates' motivation to resolve their relationship problems, we operationalized and measured intimates' motivation in a

variety of ways across studies (see Campbell & Fiske, 1959). In all three studies, we predicted that the implications of confrontational partner-regulation behaviors for partners' motivation to resolve their relationship problems would depend on those partners' depressive symptoms, such that confrontational behaviors would increase the motivation of partners who were experiencing relatively low levels of depressive symptoms but decrease the motivation of partners who were experiencing relatively high levels of depressive symptoms. In Study 2, we tested our prediction that these effects would be mediated by relationship self-efficacy. In all three studies, we also explored whether benevolent behaviors were particularly likely to increase the motivation of partners who were experiencing relatively high levels of depressive symptoms.

Pilot Study

Methods

Participants. Participants were 226 undergraduate students (189 women) at a large university in the southeastern United States who had a mean age of 19.67 years ($SD = 2.59$). All participants had been involved in a romantic relationship for at least 3 months ($M = 20.64$, $SD = 17.19$). The majority of participants (68%) identified as White or Caucasian.

Procedure. Participants were recruited through the university's online subject pool and offered partial course credit or extra credit for their participation. After providing informed consent, participants completed the following measures that were presented through the university's online participation site.

Measures (see online supplemental materials for complete measures)

Partners' confrontational behavior. For this initial test of the hypotheses, we assessed participants' perceptions of their partners' confrontational partner-regulation behaviors with one item ("during a discussion of a relationship problem, my partner blames, accuses, and criticizes me") using a 7-point Likert-type response scale from 1 = very unlikely to 9 = very likely ($M = 2.91$, $SD = 2.35$).

Partners' benevolent behavior. We also assessed participants' perceptions of their partners' benevolent behaviors with one item ("my partner is especially nice and caring toward me") using a 9-point Likert-type response scale from 1 = *never* to 9 = *constantly* ($M = 7.71$, $SD = 1.67$).

Depressive symptoms. Depressive symptoms were assessed using the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961). The BDI is a 21-item, multiple-choice measure that asks participants to identify one of four statements in each item that

best describes the extent of their depressive symptoms (e.g., “I do not feel sad,” “I feel sad,” “I am sad all the time and I can’t snap out of it,” “I am so sad or unhappy that I can’t stand it”) over the past week. Each item is rated on a 4-point scale ranging from 0 to 3, with higher scores indicating greater depressive symptoms ($M = 6.40$, $SD = 6.89$; see online supplemental materials for additional descriptive statistics on this measure for all studies). All items were summed. Internal consistency was high ($\alpha = .90$).

Motivation to resolve relationship problems. Intimates’ motivation to resolve their relationship problems was assessed using a measure developed by L. R. Baker and McNulty (2011) that asked participants to report the extent to which 10 phrases completed the sentence, “When I have made a mistake or caused a problem in my relationship . . . ” (e.g., “I usually try to figure out a solution to the problem,” “I usually try to work things out with my partner right away”), using a 7-point Likert-type response scale from 1 (almost never) to 7 (*almost always*). All items were averaged to form an index of motivation ($M = 54.36$, $SD = 8.42$). Internal consistency was acceptable ($\alpha = .79$).

Results

Descriptive statistics and correlations among all variables appear in the online supplemental materials. To test the hypothesis that depressive symptoms moderate the association between partners’ confrontational behavior and own motivation to resolve relationship problems, we regressed motivation scores onto mean-centered partner confrontational behavior scores, mean-centered depressive symptoms scores, and their interaction. Although depressive symptoms were negatively associated with motivation to resolve relationship problems on average, $t(222) = -3.01$, $p < 0.01$, 95% confidence interval (CI) = $[-0.40, -0.08]$, this main effect was qualified by a significant Depressive Symptoms \times Partners’ Confrontational Behavior interaction, $t(222) = -3.53$, $p < 0.01$, 95% CI = $[-0.02, -0.01]$ (see Panel A of Figure 1). Consistent with predictions, tests of the simple slopes (see Aiken & West, 1991) revealed that partners’ confrontational behaviors were negatively associated with intimates’ motivation among intimates who were one standard deviation above the mean on depressive symptoms, $t(222) = -2.21$, $p = .03$, but positively associated with intimates’ motivation among intimates who were one standard deviation below the mean on depressive symptoms, $t(222) = 2.60$, $p = .01$. Notably, a subsequent analysis indicated this interaction was not further moderated by participant sex, $t(218) = -0.50$, *ns*.

To address whether benevolent behaviors can particularly motivate depressed intimates to resolve relationship problems, we regressed motivation scores onto mean-centered partner benevolent behavior scores, mean-centered depressive symptoms scores, and their interaction. Depressive symptoms were again negatively associated with motivation to resolve relationship problems, $t(222) = -2.24$, $p = .03$, 95% CI = $[-0.36, -0.02]$. Further, perceptions of benevolent partner behaviors were positively associated with motivation to resolve relationship problems,

$t(222) = 1.99, p < 0.05, 95\% \text{ CI} = [0.01, 0.15]$. Nevertheless, the Depressive Symptoms \times Partners' Benevolent Behavior interaction was not significant, $t(222) = 0.34, p = .73, 95\% \text{ CI} = [-0.01, 0.01]$, suggesting that the positive association between a partner's benevolent behavior and one's own motivation did not depend on the extent of one's depressive symptoms.¹

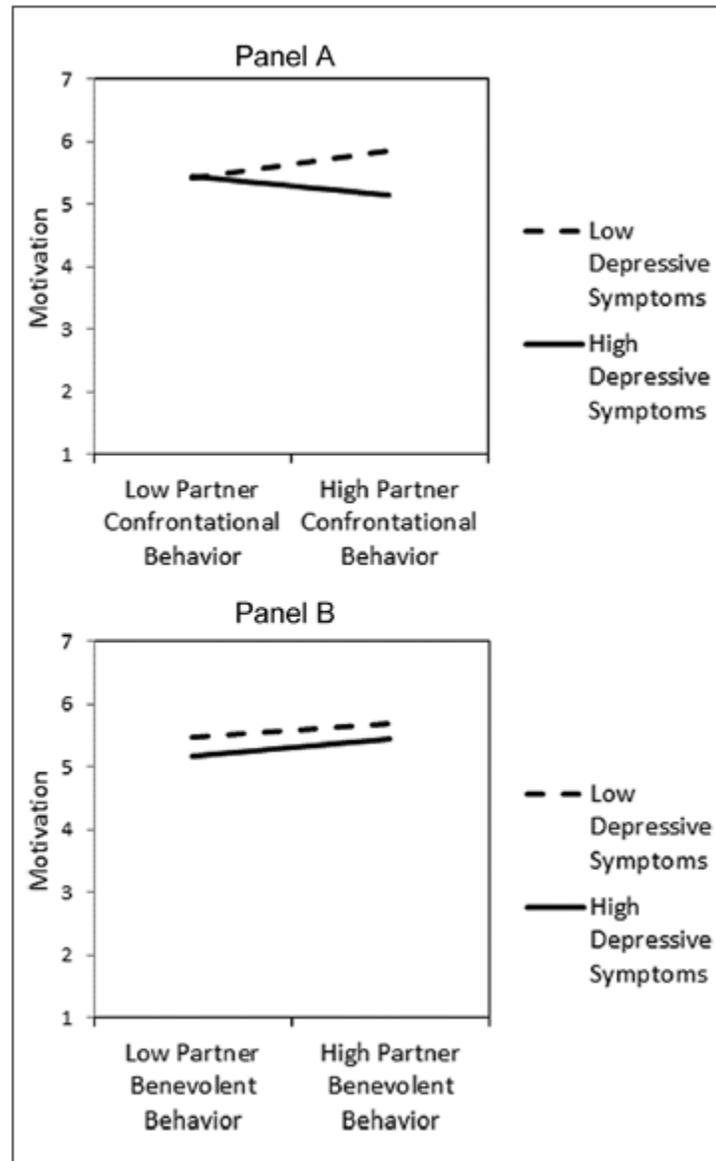


Figure 1. Interactive effects of perceptions of partners' behavior and own depressive symptoms on own motivation to resolve relationship problems in the pilot study.

Discussion

This pilot study provides preliminary evidence that the implications of confrontational partner-regulation behaviors for partners' motivation to resolve relationship problems depend on those partners' depressive symptoms. Specifically, intimates' perceptions of their partners' confrontational behaviors were positively associated with their self-reported motivation to resolve their relationship problems among intimates low in depressive symptoms, but negatively associated with such motivation among intimates high in depressive symptoms. Perceptions of partners' benevolent behaviors, in contrast, were positively associated with intimates' motivation regardless of their levels of depressive symptoms.

Despite this evidence, this Pilot Study is limited in several important ways. For example, it relied on single-item, self-reports of behavior, used a cross-sectional design, relied on participants who were mostly women in dating relationships, and did not examine the predicted mechanism of these effects—self-efficacy. We thus conducted two additional studies to address these issues.

Study I

Methods

Participants. Participants in Study 1 were 132 heterosexual newlywed couples drawn from a broader longitudinal study of 135 newlywed couples (3 couples chose to not have their problem-solving discussions videotaped and thus could not be coded for the current analyses).² Participants were recruited through advertisements placed in community newspapers and bridal shops and through invitations sent to eligible couples who had applied for marriage licenses in counties near the study location. This sample size was obtained because it was the maximum number of couples we were able to obtain in 1 year. A post hoc power analysis indicated that the power to detect the obtained results was .79.

Husbands were 25.90 years old ($SD = 4.57$) on average and had received 15.69 years ($SD = 2.38$) of education. Ninety-two percent were Caucasian and 74% were Christian. Seventy percent were employed full-time and 26% were full-time students. Wives were 24.21 years old ($SD = 3.59$) on average and had received 18.14 years ($SD = 1.88$) of education. Ninety-four percent were Caucasian and 80% were Christian. Fifty-six percent were employed full-time and 28% were full-time students.

Procedure. Before the laboratory session during which their problem-solving behaviors were observed, participants were mailed a packet of questionnaires to complete at home and bring with them to their appointment. This packet included a consent form approved by the local human subjects review board, self-report measures that included a measure of depressive symptoms, and a letter instructing couples to complete all questionnaires independently of one

another. Upon arriving to their session, spouses participated in two problem-solving discussions designed to assess how they resolve marital problems. Each spouse identified an area of difficulty in the marriage and then both spouses participated in two 10-min videotaped discussions in which they were left alone to “work toward some resolution or agreement” for each problem. The order of the two interactions was determined through a coin flip. If both spouses chose the same topic, they first discussed that topic and then discussed a second topic chosen by the spouse whose topic was randomly designated to be discussed second. After completing their interactions, couples were paid US\$80 for participating in this phase of the study.

Measures (see online supplemental materials for complete measures)

Depressive symptoms. Depressive symptoms were assessed using the BDI (husbands' $M = 3.06$, $SD = 3.98$; wives' $M = 4.33$, $SD = 5.03$). Internal consistency was acceptable ($\alpha = .73$ for husbands, $.76$ for wives).

Observed problem-solving behavior. Newlyweds' problem-solving behaviors were estimated by coding videotapes of their problem-solving discussions. After watching each interaction, one of four coders made several global codes of husbands' and wives' behavior. Several of these codes served to operationalize the constructs in this study. Regarding confrontational regulation behaviors, coders rated the extent to which each spouse blamed one another for the relationship problem (“How much did the husband [wife] blame the wife [husband] for the problem?”). Regarding benevolent regulation behaviors, each coder rated the extent to which each spouse expressed positive affect during the problem-solving discussion (“How much did the husband [wife] express positive affect?”). Regarding motivation, each coder rated the extent to which each spouse was engaged in the problem-solving discussion (“How engaged was the husband [wife] in the conversation?”). Coders made all ratings on a scale from 1 (not at all) to 7 (extremely/a lot). Given that hypotheses addressed how individuals regulate their partners' problematic behavior, and given that the conversation topics chosen by actors were more likely to target their partners' problematic behavior than were the conversation topics chosen by those partners, we analyzed the engagement scores from the conversations in which the topics had been chosen by the actors (i.e., we predicted husbands' engagement using the wife's regulation behavior during the discussion of the topic chosen by the wife and vice versa). Approximately 20% of the discussions were coded by a second rater. Intraclass correlation coefficients (ICCs) indicated that the coders were reliable (for husbands' blame, $ICC = .81$; for wives' blame, $ICC = .91$; for husbands' positive affect, $ICC = .88$; for wives' positive affect, $ICC = .87$; for husbands' engagement, $ICC = .68$; for wives' engagement, $ICC = .73$; husbands' blame $M = 2.18$, $SD = 1.26$; wives' blame $M = 2.54$, $SD = 1.53$; husbands' positive affect $M = 3.29$, $SD = 1.11$; wives' positive affect $M = 3.33$, $SD = 1.24$; husbands' engagement $M = 4.59$, $SD = 1.05$; wives' engagement $M = 4.93$, $SD = 0.98$).

Results

Descriptive statistics and correlations among all variables appear in the online supplemental materials. To address whether the implications of intimates' tendencies to blame for their partners' engagement in problem-solving discussions depended on those partners' depressive symptoms, we estimated a two-level model using the HLM 6.08 computer program (Bryk, Raudenbush, & Congdon, 2004). In the first level of the model, partners' engagement scores were

Table 1. Effects of Behavior, Partners' Depressive Symptoms, and Their Interaction on Partners' Engagement During ProblemSolving Discussions in Study 1.

	Effect Size			
	<i>b</i>	<i>r</i>	<i>p</i>	95% CI
Blame				
Partners' depressive symptoms (PD)	-0.02	.09	.14	[-0.05, 0.01]
Blame (B)	-0.01	.02	.75	[-0.09, 0.07]
B x PD	-0.02**	.17	.01	[-0.04, -0.01]
Positive affect				
Partners' depressive symptoms (PD)	-0.01	.06	.36	[-0.05, 0.02]
Positive affect (PA)	0.14	.11	.07	[-0.01, 0.29]
PA x PD	0.03*	.16	.01	[0.01, 0.06]

Note. For the *t* test, *df* = 260. CI = confidence interval. **p* < .05. ***p* < .01.

regressed onto mean-centered intimates' blame scores, mean-centered partners' depressive symptom scores, the crucial Blame × Partners' Depressive Symptoms interaction, and a dummy-code indicating whether the husband's or wife's topic was discussed first. The non-independence of couples' data was controlled in the second level of the model that allowed for a randomly varying intercept.

Results are presented in the top section of Table 1. Neither intimates' tendencies to blame nor partners' reports of depressive symptoms were associated with partners' engagement in the problem-solving discussions, on average. Nevertheless, as predicted, the Blame × Partners' Depressive Symptoms interaction was associated with partners' engagement, $t(260) = -2.75$, $p = .01$ (see Panel A of Figure 2). Consistent with predictions, and with the findings of the pilot study, tests of the simple slopes revealed that intimates' tendencies to blame were negatively associated with partners' engagement in the discussions among partners who were one standard

deviation above the mean on depressive symptoms, $t(260) = -2.23, p = .03$, but marginally positively associated with engagement among partners who were one standard deviation below the mean on depressive symptoms, $t(260) = 1.72, p = .09$. Notably, subsequent analyses indicated this interaction was not further moderated by partners' sex, $t(256) = 0.45, ns$, and remained significant when estimating an actor-partner interdependence model (APIM) that controlled for intimates' depressive symptoms, intimates' engagement, and partners' tendencies to blame, $t(256) = -2.35, p = .02$ (Kenny, Kashy, & Cook, 2006).

To address whether the implications of expressions of positive affect for partners' engagement in problem-solving discussions depended on those partners' depressive symptoms, we estimated a similar two-level model that included intimates' positive affect scores instead of intimates' blame scores. Results are presented in the bottom section of Table 1. As can be seen there, intimates' positive affect was positively associated with partners' engagement in the problem-solving discussions. However, unlike the pilot study, this main effect was qualified by a significant Positive Affect \times Partners' Depressive Symptoms interaction, $t(260) = 2.60, p = .01$ (see Panel B of Figure 2). Tests of the simple slopes revealed that positive affect was positively associated with partners' engagement in the discussions among partners who were one standard deviation above the mean on depressive symptoms, $t(260) = 3.28, p < 0.01$, but unassociated with engagement among partners who were one standard deviation below the mean on depressive symptoms, $t(260) = 0.24, ns$. Subsequent analyses indicated this interaction was not further moderated by partners' sex, $t(256) = -0.17, ns$, and remained significant when estimating an APIM that controlled for intimates' depressive symptoms, intimates' engagement, and partners' tendencies to express positive affect, $t(256) = 2.37, p = .02$.³

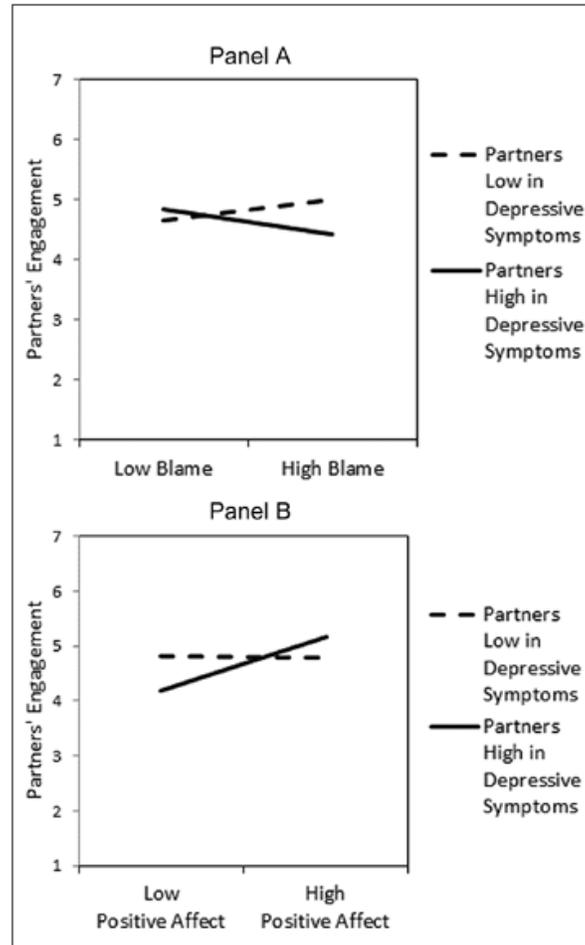


Figure 2. Interactive effects of behavior and partners' depressive symptoms on partners' engagement in problem-solving discussions in Study 1.

Discussion

Study 1 provides further evidence that confrontational partner-regulation behaviors interact with partners' depressive symptoms to predict partners' motivation to resolve their relationship problems. Specifically, observations of intimates' tendencies to blame their partners were positively associated with observations of those partners' tendencies to engage in problem-solving discussions when those partners were relatively low in depressive symptoms, but negatively associated with observations of those partners' tendencies to engage in problem-solving discussions when those partners were relatively high in depressive symptoms. Furthermore, intimates' tendencies to express positive affect were positively associated with partners' engagement in problem-solving discussions when those partners were relatively high in depressive symptoms but unrelated to engagement when those partners were relatively low in depressive symptoms. Nevertheless, neither Study 1 nor the pilot study examined the temporal

association between these variables. Thus, it remains possible that the causal direction of this association is different from that suggested by our conceptual analysis. For example, motivation and depressive symptoms may lead to changes in a partners' behavior rather than vice versa. Thus, Study 2 used data from a daily diary study to address this limitation. In addition, neither study provided evidence for the predicted mechanism of these effects—relationship self-efficacy. Thus, Study 2 assessed partners' levels of relationship self-efficacy and examined whether they mediated the interactive effects of depressive symptoms and partner-regulation.

Study 2

Methods

Participants. Participants were 134 married couples who were recruited through flyers, craigslist.com, and facebook.com. This sample size was obtained because it was the maximum number of couples we were able to compensate for participation. A post hoc power analysis indicated that the power to detect the obtained result was .54.

One hundred and thirty-one couples were in heterosexual marriages and three couples were in same-sex marriages (two lesbian couples). Husbands were 31.33 years old ($SD = 4.99$) on average and had received 16.83 years ($SD = 2.62$) of education. Ninety-one percent were Caucasian and 53% were Christian. Eighty-eight percent were employed fulltime and 7% were full-time students. Wives were 30.34 years old ($SD = 5.13$) on average and had received 17.22 years ($SD = 2.30$) of education. Ninety-four percent were Caucasian and 58% were Christian. Fifty-six percent were employed full-time and 12% were full-time students. On average, couples had been married for 4.55 years ($SD = 4.88$) and had 0.93 children ($SD = 1.23$).

Procedure. All participants first gave informed consent and then completed a series of baseline measures that included measures of confrontational and benevolent partner-regulation behavior, depressive symptoms, and relationship self-efficacy. Subsequent to that assessment, participants completed an online diary every night for the next 14 nights that assessed their motivation to resolve their relationship problems. All measures were completed online using Qualtrics survey software. After completing the study, each member of the couple was paid US\$15 for the baseline measures, US\$1 for each day of the diary they completed, and a bonus of US\$11 for completing 12 or more days.

Measures (see online supplemental materials for complete measures)

Confrontational partner-regulation behavior. Confrontational partner-regulation behaviors were assessed at baseline by asking participants to self-report the degree to which they tended to engage in seven different confrontational partner-regulation behaviors during discussions of problems (e.g., "I criticize my partner for our problems") using a 7-point Likert-type response scale from 1 (*not at all*) to 7 (*very often*). These seven behaviors were summed to form a single score of each spouse's tendency to engage in confrontational

partner-regulation behaviors. Internal consistency was acceptable ($\alpha = .87$ for husbands and $.88$ for wives; husbands' $M = 17.25$, $SD = 9.45$; wives' $M = 20.05$, $SD = 10.63$).

Benevolent partner-regulation behavior. Benevolent partner-regulation behaviors were assessed at baseline by asking participants to self-report the degree to which they tended to engage in six different benevolent behaviors during discussion of problems (e.g., "I am affectionate and loving toward my partner"), using a 7-point Likert-type response scale from 1 (*not at all*) to 7 (*very often*). These six behaviors were summed to form a single score of each spouse's tendency to engage in a benevolent manner toward their partners. Internal consistency was high ($\alpha = .92$ for husbands and $.89$ for wives; husbands' $M = 45.84$, $SD = 7.89$; wives' $M = 46.46$, $SD = 7.65$).

Depressive symptoms. Depressive symptoms were assessed at baseline using the BDI (husbands' $M = 6.07$, $SD = 5.64$; wives' $M = 7.64$, $SD = 7.29$). Internal consistency was acceptable ($\alpha = .87$ for husbands and $.91$ for wives).

Relationship self-efficacy. Participants' relationship self-efficacy was assessed at baseline using a seven-item measure developed by Bradbury (1989; also see Cui, Fincham, & Pasley, 2008) that asks participants their beliefs about their ability to resolve marital conflicts (e.g., "I often feel helpless in dealing with the problems that come up in my marriage"; reverse-scored), using a 5-point Likert-type scale from 1 (*not at all agree*) to 5 (*strongly agree*). All items were summed. Internal consistency was acceptable ($\alpha = .85$ for husbands and $.87$ for wives; husbands' $M = 37.90$, $SD = 5.53$; wives' $M = 38.55$, $SD = 5.47$).

Motivation to resolve relationship problems. Participants' subsequent motivation to resolve relationship problems was assessed each day of the 14-day diary with one item that asked them to respond to the statement, "How willing are you to change your own behavior, preferences, or goals to resolve the problems that exist in your relationship?" using a 7-point Likert-type response scale from 1 = not at all to 7 = very (husbands' $M = 5.77$, $SD = 0.96$; wives' $M = 5.68$, $SD = 0.98$).

Results

Descriptive statistics and correlations among all variables appear in the online supplemental materials. We first attempted to conceptually replicate the interactive effects of depressive symptoms and confrontational behaviors on motivation that emerged in the previous two studies by using the interaction between confrontational behaviors and partners' depressive symptoms to predict changes in partners' motivation to resolve relationship problems over the 2-week course of the diary. Specifically, we estimated a three-level growth curve model using the HLM 6.08 computer program in which partners' reports of their daily motivation scores were regressed onto

an intercept and day of assessment in the first level of the model, and, in the second level of the model, these intercept and slope estimates were regressed onto mean-centered partners' depressive symptom scores at baseline, mean-centered intimates' reports of their own confrontational behavior scores at baseline, and the Confrontational Behavior \times Partners' Depressive Symptoms interaction. The non-independence of repeated assessments was controlled in the second level of the model with a randomly varying intercept and the non-independence of couples' data was controlled in the third level of the model with a randomly varying intercept.

Results are presented in the top section of Table 2. Confrontational behaviors and partners' depressive symptoms were negatively associated with partners' initial motivation to resolve their relationship problems but not significantly associated with changes in motivation over time, on average. Nevertheless, the Confrontational Behavior \times Partners' Depressive Symptoms \times Time interaction was significantly associated with partners' motivation, indicating that the implications of confrontational behaviors for changes in partners' motivation over time depended on partners' depressive symptoms, $t(3473) = -1.99, p < .05$ (see Panel A of Figure 3). Consistent with predictions, tests of the simple slopes revealed that confrontational behaviors were marginally negatively associated with changes in partners' motivation among partners who were one standard deviation above the mean on depressive symptoms, $t(3438) = -1.69, p = .09$, but not associated with changes in partners' motivation among partners who were one standard deviation below the

Table 2. Effects of Behavior, Partners' Depressive Symptoms, and Their Interaction on Changes in Partners' Motivation in Study 2.

	Effect Size			
	<i>b</i>	<i>r</i>	<i>p</i>	95% CI
Confrontational behavior				
Partners' depressive symptoms (PD) ^a	-4.05 E-2**	.23	.01	[-0.06, -0.02]
Confrontational behavior (C) ^a	-2.02 E-2**	*.19	.01	[-0.03, -0.01]
Time (T) ^b	-1.00 E-3	.00	.84	[-0.01, 0.01]
PD × C ^a	1.77 E-3	.10	.11	[-0.00, 0.00]
T × PD ^b	2.46 E-4	.01	.73	[-0.00, 0.00]
T × C ^b	-2.49 E-4	.01	.59	[-0.00, 0.00]
C × PD × T ^b	-1.56 E-4*	.03	.05	[-0.00, -0.00]
Benevolent behavior				
Partners' depressive symptoms (PD) ^a	-3.76 E-2**	.22	.01	[-0.06, -0.02]
Benevolent behavior (B) ^a	8.65 E-3	.07	.25	[-0.01, 0.02]
Time (T) ^b	-6.31 E-4	.00	.90	[-0.01, 0.01]
PD × B ^a	1.24 E-3	.06	.34	[-0.00, 0.00]
T × PD ^b	3.94 E-4	.01	.60	[-0.00, 0.00]
T × B ^b	3.48 E-4	.01	.55	[-0.00, 0.00]
B × PD × T ^b	1.50 E-4 [†]	.03	.09	[-0.00, 0.00]

Note. CI = confidence interval.

^a*df* = 264.

^b*df* = 3,473.

[†]*p* < .10. **p* = .05. ***p* < .01.

mean on depressive symptoms, $t(3438) = 1.17, p = .24$. Notably, subsequent analyses indicated the interaction was not further moderated by partners' sex, $t(3430) = 0.60, ns$, and remained marginally significant estimating an APIM that controlled for intimates' depressive symptoms, intimates' motivation, and partners' reports of their own confrontational behaviors, $t(3285) = -1.84, p = .07$.

To address whether partners' relationship self-efficacy mediated the interactive effects of confrontational behaviors and partners' depressive symptoms on changes in partners' motivation to resolve relationship problems, we computed asymmetric CIs for the mediated effect by following the procedure described by MacKinnon, Fritz, Williams, and Lockwood (2007). This procedure required conducting two additional sets of analyses. First, we estimated the interactive effects of confrontational behaviors and partners' depressive symptoms on the expected mediator—partners' relationship self-efficacy—by estimating a two-level model. In the first level of the model, partners' self-efficacy scores were regressed onto mean-centered confrontational behavior scores, mean-centered partners' depressive symptom scores, and the crucial Confrontational Behavior \times Partners' Depressive Symptoms interaction. Consistent with the first criterion necessary for establishing mediation, the Confrontational Behavior \times Partners' Depressive Symptoms interaction was significantly associated with partners' self-efficacy, $t(264) = -2.23, p = .03$.

Second, we tested whether partners' self-efficacy predicted changes in partners' motivation, controlling for confrontational behaviors, partners' depressive symptoms, and the Confrontational Behaviors \times Partners' Depressive Symptoms interaction, by repeating the same growth curve analysis described earlier to establish the interactive association between confrontational behaviors and partners' depressive symptoms except this time adding partners' relationship self-efficacy scores to account for variance in the intercept and slope parameters. Consistent with the second criterion needed to establish mediation, partners' relationship self-efficacy was positively associated with changes in partners' motivation, $t(3436) = 2.10, p = .04$, controlling for the Confrontational Behaviors \times Partners' Depressive Symptoms interaction. Finally, we multiplied these two effects together to obtain an estimate of the mediated effect, $B = -1.61E-5$, and computed the 95% CI = $[-4.00E-5, -1.00E-5]$ that indicated that the mediated effect was significant.

We also examined the effect of benevolent behaviors on partners' motivation by using the interaction between benevolent partner-regulation behaviors and partners' depressive symptoms to predict changes in partners' motivation to resolve relationship problems over the 2-week course of the diary. Specifically, we estimated a three-level growth curve model in which partners' daily motivation scores were regressed onto an intercept and day of assessment in the first level of the model, and, in the second level of the model, these intercept and slope estimates were regressed onto mean-centered reports of intimates' benevolent behavior scores at baseline, mean-centered partners' depressive symptom scores at baseline, and the Benevolent Behavior \times Partners' Depressive Symptoms interaction.

Results are presented in the bottom section of Table 2. Partners' depressive symptoms were negatively associated with partners' motivation to resolve relationship problems at baseline but were not associated with changes in motivation. Nevertheless, the Benevolent Behavior \times Partners' Depressive Symptoms \times Time interaction was marginally associated with partners' motivation, indicating that the implications of benevolent behaviors for changes in partners' motivation over time depended on partners' depressive symptoms (see Panel B of Figure 3).

Consistent with the findings of Study 1, tests of the simple slopes revealed that benevolent behaviors trended toward being positively associated with changes in partners' motivation among partners who were one standard deviation above the mean on depressive symptoms, $t(3438) = 1.45, p = .15$, but were not associated with changes in partners' motivation among partners who were one standard deviation below the mean on depressive symptoms, $t(3438) = -0.93, p = .35$. Notably, subsequent analyses indicated that the interaction was not further moderated by partners' sex, $t(3430) = -0.35, ns$, and remained marginally significant when estimating an APIM that controlled for intimates' depressive symptoms, intimates' motivation, and partners' benevolent behavior, $t(3283) = 1.72, p = .08$.^{4,5,6}

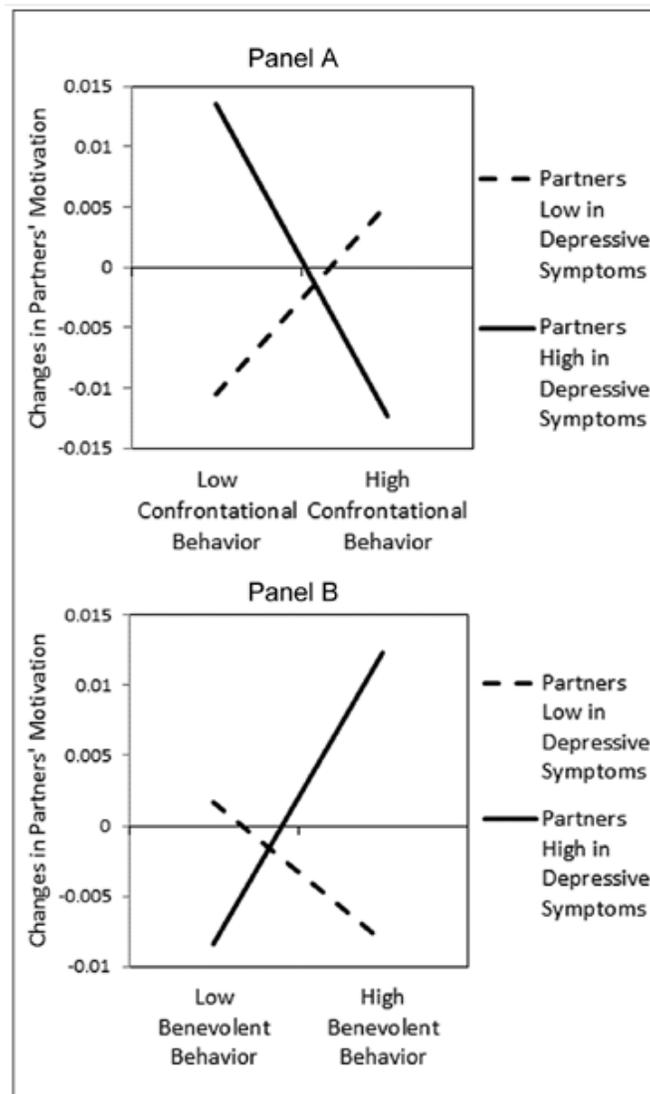


Figure 3. Interactive effects of behavior and partners' depressive symptoms on changes in partners' motivation in study 2.

Meta-Analysis of Studies

Although some effects were consistent across all three studies, other effects were less consistent. To determine whether these inconsistencies reflected sampling error across studies or meaningful effects, we conducted meta-analyses across the three studies for all six key effects: the Confrontational Behavior \times Partners' Depressive symptoms interaction, the two corresponding simple effects of confrontational behavior, the Benevolent Behavior \times Partners' Depressive symptoms interaction, and the two corresponding simple effects of benevolent behavior.⁷ Each meta-analysis followed the procedures recommended by Lipsey and Wilson (2001); for more information, see the online supplemental materials.

Table 3. Meta-Analyses of the Behavior \times Partners' Depressive Symptoms Interactions and Simple Effects Across Studies.

	<i>z</i>	<i>p</i>
Confrontational Behavior \times Partners' Depressive Symptoms	-2.23	.03
Partners high in depressive symptoms	-2.16	.03
Partners low in depressive symptoms	1.68	.09
Benevolent Behavior \times Partners' Depressive Symptoms	1.93	.05
Partners high in depressive symptoms	2.25	.02
Partners low in depressive symptoms	0.82	.41

Results

Results are reported in Table 3. Not surprisingly, the two effects that were consistently significant across the three studies were significant. That is, confrontational behavior and partners' depressive symptoms interacted to predict partners' motivation to address their problems and confrontational behaviors were negatively associated with partners' motivation to correct their relationship problems among partners who were high in depressive symptoms. Furthermore, confrontational behaviors were marginally positively associated with partners' motivation among partners who were low in depressive symptoms. Further still, the interaction between benevolent behaviors and partners' depressive symptoms was significant, and the positive simple effect of benevolent behaviors on partners' motivation among partners high in depressive symptoms was significant. Benevolent behaviors were unrelated to the motivation of partners who were low in depressive symptoms.

General Discussion

Although some prior research suggests that confrontational partner-regulation behaviors may lead partners to change their problematic behavior on average (e.g., McNulty & Russell, 2010; Meltzer et al., 2012; Overall et al., 2009), contextual models of relationships and communication (Bradbury & Fincham, 1991; Fincham, 2003; McNulty & Fincham, 2012; Zayas et al., 2002) suggest such effects may have important limits. Specifically, confrontational partner-regulation behaviors may undermine the self-efficacy of depressed people and thus lead them to become even less motivated to change such behaviors. One pilot study, an observational study of newlywed couples, and a diary study of married couples supported these predictions. According to meta-analyses of the three studies, confrontational behaviors were marginally positively associated with partners' motivation among partners experiencing low levels of depressive symptoms but negatively associated with partners' motivation among partners experiencing high levels of depressive symptoms. Further, Study 2 demonstrated that these effects were mediated by partners' relationship self-efficacy, such that confronting partners low in depressive symptoms was associated with those partners having fewer doubts about their abilities to resolve relationship problems and thus greater motivation over time, but confronting partners high in depressive symptoms was associated with those partners having greater doubts about their abilities to resolve relationship problems and thus less motivation over time. In contrast, more benevolent regulation behaviors, such as validation and support, were particularly motivating for depressed partners. Specifically, the meta-analyses confirmed that the implications of benevolent behaviors for partners' motivation also depended on partners' depressive symptoms, such that these behaviors were particularly likely to motivate partners experiencing greater depressive symptoms.

Theoretical Implications

These findings have important theoretical implications. Not only do they join other studies in providing necessary nuance to our understanding of effective communication processes (e.g., Ford & Collins, 2010; Luchies et al., 2010; McNulty, 2008, 2010b; McNulty & Russell, 2010; Murray et al., 2002; Overall & Sibley, 2009; Simpson & Overall, 2014) but they also suggest two important psychological mechanisms of such effects. First, they demonstrate that confrontational partner-regulation behaviors are directly linked to partners' motivation and Study 2 provided necessary temporal evidence consistent with the idea that confrontational behaviors lead to partner motivation rather than vice versa. Although partner motivation has been used to explain the benefits of partner-regulation behaviors observed in other studies (e.g., McNulty & Russell, 2010; Overall et al., 2009), these are the first studies of which we are aware that provide direct evidence for a link between confrontation and partner motivation. Of course, the motivational benefits of confrontation for partners low in depressive symptoms were only marginally

significant in the meta-analysis, suggesting there may be other important moderators of this effect. Future research may benefit from examining additional moderators.

Second, Study 2 highlighted the important role of relationship self-efficacy. Consistent with research demonstrating that people tend to be more motivated to achieve their goals to the extent they believe they are capable of achieving those goals (Bandura & Wood, 1989; Wood & Bandura, 1989), several studies in the domain of close relationships have demonstrated that relationship self-efficacy is associated with important interpersonal benefits (L. Baker & McNulty, 2010; Cui et al., 2008; Riggio et al., 2013). The current studies extend this developing line of research by highlighting the implications of self-efficacy for motivation, as well as the potential importance of confrontation for self-efficacy. Importantly though, consistent with contextual theories of communication (e.g., McNulty, 2010b; McNulty & Fincham, 2012), the current results suggest that the implications of confrontation for self-efficacy depend on qualities of the partner. Whereas confrontation did not undermine the self-efficacy of those low in depressive symptoms, it did undermine the self-efficacy of those high in depressive symptoms.

In addition, the current findings also highlight the importance of considering partner depression in research on couples' communication. As previously noted, a consistent body of cross-sectional research has led researchers and therapists to believe that intimates should avoid confronting their partners (for reviews, see Gottman, 1998; Heyman, 2001; Jacobson & Margolin, 1979). However, more recent research (e.g., McNulty & Russell, 2010; Overall et al., 2009) demonstrates that although these confrontational behaviors tend to be distressing, they are associated with fewer relationship problems over time. Notably, McNulty and Russell (2010) demonstrated that such confrontational behaviors were particularly beneficial for couples experiencing more severe problems. This finding is important in light of the current findings that such behaviors are associated with decreased motivation among more depressed partners given that both problem severity (McNulty, O'Mara, & Karney, 2008) and depression (Whisman, 1999) are associated with relationship distress. In other words, although distressed couples may benefit from confrontational partner-regulation strategies because they are likely to be experiencing more severe problems that require resolutions, this should only be true to the extent that neither partner is depressed. Thus, completely understanding the role of confrontation in problem-solving likely requires accounting for all three factors.

Study Strengths

Several strengths of the current studies enhance our confidence in the results reported here. First, as noted, the overall interactive effect replicated across three independent samples with conceptually similar but empirically distinct measures of behavior (intimates' reports of partners' behavior, observations of partners' behavior, and partners' self-reports) and motivation (observations and self-reports), reducing the likelihood that the results were due to sampling error or unique to a particular operationalization of the variables. Moreover, Study 1 provided evidence for the behavioral implications of this process by examining intimates' engagement in

actual problem-solving discussions. Second, the results replicated across individuals who were dating, newlyweds, and married, helping to ensure that the results obtained were not unique to individuals in certain types of romantic relationships (see Russell, Baker, & McNulty, 2013).

Nevertheless, several factors limit the conclusions that can be drawn from these results until they can be replicated and extended. First, the couples examined were primarily White. Although we are not aware of any theoretical reasons that depressive symptoms and partners' behavior should differentially interact to predict motivation in non-White intimates, generalizations to other samples should be made with caution. Second, none of these studies examined these effects on close, non-romantic types of relationships such as friendships or familial relationships. Although we are also not aware of any reasons to expect that the effects that emerged here should differ across different types of close relationships, future research may benefit by examining these effects in other types of relationships. Finally, none of these studies examined the implications of partner-regulation behavior in clinical samples of depressed clients. Although the self-report measures of depressive symptoms that were used suggest that some individuals in the current samples would likely meet criteria for major depression, diagnosis of depression requires a clinical interview. As such, generalizations to clinical samples should be made with caution.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This work was supported by the National Science Foundation (Grant BCS-1251520), and the National Institute of Child Health and Development (Grant No. 1 R03 HD058314).

Notes

1. To examine whether confrontational and benevolent behaviors had effects that were independent of one another, we conducted supplemental analyses in which both confrontational and benevolent behaviors were entered in the model together. The Depressive Symptoms \times Partners' Confrontational Behavior interaction remained significant, $t(220) = 3.35$, $p = .01$; the main effect of benevolent behavior remained significant, $t(220) = 2.16$, $p = .03$; and the Depressive Symptoms \times Partners' Benevolent Behavior interaction remained not significant, $t(220) = -1.00$, $p = .32$.
2. Data describing participants in this study have been described in previously published reports (L. Baker & McNulty, 2010, 2013; Little, McNulty, & Russell, 2010; McNulty, 2010a; McNulty, Baker, & Olson, 2014; McNulty, Olson, Meltzer, & Shaffer, 2013; McNulty, Wenner, & Fisher, 2014; McNulty & Widman, 2013, 2014; Meltzer &

McNulty, 2010, 2014; Meltzer, McNulty, Jackson, & Karney, 2014; Russell, Baker, & McNulty, 2013; Russell, McNulty, Baker, & Meltzer, 2014), but there has been little overlap between the variables examined in these prior studies and the variables examined here. The three exceptions are participants' (a) confrontational behaviors, here treated as a predictor of partners' behavior, were used to predict the trajectories of marital satisfaction in a previous report (McNulty & Russell, 2010); (b) observed engagement, here predicted by partners' behavior, was predicted by participants' own self-compassion and conscientiousness in a previous report (L. Baker & McNulty, 2010); and (c) depressive symptoms, here treated as a moderator of partners' behavior, were predicted by participants' own tendencies to compromise in a previous report (L. R. Baker, McNulty, Overall, Lambert, & Fincham, 2013).

3. To examine whether confrontational and benevolent behaviors had effects that were independent of one another, we once again conducted supplemental analyses in which both confrontational and benevolent behaviors were entered in the model together. The Blame \times Partners' Depressive Symptoms interaction remained significant, $t(258) = -2.22, p = .03$, and the Positive Affect \times Partners' Depressive Symptoms interaction remained significant, $t(258) = 1.97, p = .05$.
4. Two-level models that nested individuals within dyads and crossed dyads with time yielded virtually identical results. See the online supplemental materials for more information about these analyses.
5. To examine whether confrontational and benevolent behaviors had effects that were independent of one another, we once again conducted supplemental analyses in which both confrontational and benevolent behaviors were entered in the model together. The Confrontational Behavior \times Partners' Depressive Symptoms interaction was trending, $t(3469) = -1.60, p = .11$, and the Benevolent Behavior \times Partners' Depressive Symptoms interaction was not significant, $t(3469) = 0.25, p = .81$. We suspect that the weaker association that emerged in this study resulted because confrontational and benevolent behaviors competed for the same variance, as indicated by the stronger correlation between those variables in this study relative to the other studies.
6. We additionally tested whether partners' relationship self-efficacy mediated the interactive effects of benevolent behaviors and partners' depressive symptoms on changes in partners' motivation to resolve relationship problems. Although, the Benevolent Behavior \times Partners' Depressive Symptoms interaction did not significantly predict partners' relationship self-efficacy, $t(264) = 1.32, p = .19$, ruling out the possibility of significant mediation in this study, the analysis was underpowered. Future research would benefit by testing this possibility with sufficient power.

7.

$$w = \frac{1}{SE^2}; \quad ES_w = ES \times w; \quad \overline{ES} = \frac{\sum ES_w}{w}; \quad SE_{\overline{ES}} = \sqrt{\frac{1}{\sum w}};$$

$$z = \frac{\overline{ES}}{SE_{\overline{ES}}};$$

effect sizes and SEs were the β s and SEs obtained from SPSS (pilot) and hierarchical linear modeling (HLM) (Studies 1 and 2). The SEs from the HLM analyses correct for the non-independence of partners' data and thus yield effect sizes based on those SEs that are appropriately comparable with those obtained in the regression analysis.

Supplemental Material

The online supplemental material is available at <http://pspb.sagepub.com/supplemental>.

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