

Exhausting Silence: Emotional Costs of Withholding Complaints

Esther Liu and Michael E. Roloff

Department of Communication Studies, Northwestern University, Evanston, IL, U.S.A.

Keywords

interpersonal conflict, emotions, communication.

Correspondence

Esther Liu, Department of Communication Studies, Northwestern University, 2240 Campus Drive, Evanston, IL 60208, U.S.A.; e-mail: eliu@u.northwestern.edu.

Abstract

Individuals often withhold relational complaints rather than disclosing them. Withholding relational complaints not only impacts relationships but can also have implications for individual behaviors and emotions. This study examined cognitive activities and behavioral aggression involved in withholding relational complaints and the emotional impact of withholding. The student-based sample consisted of 395 participants who completed a survey about emotion regulation responses (rumination and reappraisal) to an irritating experience, passive aggressive behaviors (silent treatment and stonewalling), and emotional exhaustion. The findings provide evidence for posited mediated relationships between rumination and emotional exhaustion through passive aggressive behaviors. Implications for managing challenging emotional situations and examining complaint withholding in the workplace are discussed.

Relationships offer important exchanges of support and affection, but they may also be a source of increasing irritations over time for parties (Sprecher & Felmlee, 1993). To handle these irritations, some individuals confront their partner, whereas others withhold their complaints. Although conflict avoidance has traditionally been characterized as low in goal orientation (e.g., Pruitt & Rubin, 1986), conflict avoidance is also used to communicate incompatibility through proactive and aggressive strategies (Wang, Fink, & Cai, 2012). When avoiding discussions of important relational topics, individuals report lower relational satisfaction (Frisby, Byrnes, Mansson, Booth-Butterfield, & Birmingham, 2011), increased physiological stress (Slatcher, Robles, Repetti, & Fellows, 2010), and a partner's unknowing continuation of irritating behaviors that become more difficult for one to accept (Roloff & Johnson, 2001).

Although complaint withholding appears to involve less effort than direct confrontation, it may involve cognitive effort such as rumination about an event and attempts to make sense of an event. Furthermore, withholding may be manifested in overt behaviors toward an offending partner. In some cases, intimates punish their partners by enacting the silent treatment, which involves signaling discontent with the partner by remaining aloof or silent during interactions with him or her (Williams, 2001). Alternatively, individuals may engage in stonewalling, which involves disengaging from a partner when asked by a partner about being upset (Gottman, 1994). The natural tendency may be to respond to a partner's inquiry, and individuals must exert considerable energy to stifle themselves. Consequently, engaging in these two forms of behavioral withholding may leave one exhausted. However, research has not explored this possibility.

To fill this void, we develop and test a framework based on theory and research relating to emotional regulation and aggression. Our framework assumes that the degree to which a person responds to a

partner's negative behavior through rumination or cognitive appraisal predicts the likelihood of using the silent treatment and stonewalling, which in turn are positively related to emotional exhaustion. In articulating our framework, we will review relevant research on rumination and reappraisal, the silent treatment and stonewalling, and emotional exhaustion.

Literature Review

Rumination and Reappraisal

How people think about or evaluate the meaning of their experiences influences their emotional responses (Lazarus, 1991). Consequently, as the same irritation continues in a relationship, people may engage in different thought processes about the irritation that reduce or amplify negative emotions experienced when the irritation first occurred. The process model of emotion regulation (Gross, 1998) and General Aggression model (Anderson & Bushman, 2002) offer explanations that link emotion regulation to increased aggression. In Gross's process model, emotion regulation consists of antecedent-focused and response-focused strategies that can amplify, maintain, or decrease emotional experiences and expressions. Antecedent-focused strategies (e.g., cognitive reappraisal) are generally more effective at reducing negative emotions than response-focused strategies (e.g., rumination) because they can change the development of a negative emotion (e.g., reducing experience and expression of negative emotions) (Webb, Miles, & Sheeran, 2012). General Aggression model predicts that person factors (e.g., gender) and situation factors (e.g., provocation) can influence affect (e.g., anger) and aggressive cognition, which impacts appraisals of the situation. This sequence increases engagement in aggressive behaviors. Provocation-focused rumination involves repetitive negative thoughts or repetitive focus on negative feelings about an anger-inducing event (Denson, Pedersen, & Miller, 2006). Cognitive reappraisal of negative emotions involves reinterpreting emotionally evocative events in a way that changes negative emotions (Gross, 2001). This study focuses on rumination and reappraisal as regulation strategies that both involve actively thinking about a negative event but may be related differently to aggressive behaviors.

Provocation-focused rumination prolongs activation of vengeance-related goals (McCullough, Bono, & Root, 2007), increases anger (Fabiansson, Denson, Moulds, Grisham, & Schira, 2012), and increases aggressive thoughts (Pedersen et al., 2011). Rumination also predicts retaliatory aggression (White & Turner, 2014), verbal aggression (Anestis, Anestis, Selby, & Joiner, 2009), direct and indirect aggression beyond the effects of one's tendency to experience anger (Peled & Moretti, 2010). Prior findings do not indicate that manipulated aggression causes rumination and support the prediction that individuals who ruminate about a relational complaint will engage in more aggressive behaviors.

Situational and trait reappraisal have been linked to reduction of anger and aggression. A meta-analysis of experimental comparisons of emotion regulation strategies identified reappraisal as an effective strategy of modifying emotional outcomes (Webb et al., 2012). Reappraisal of a negative experience produces less anger compared to rumination (Fabiansson et al., 2012) and less aggressive verbalizations (Maldonado, DiLillo, & Hoffman, 2014). Higher tendency to engage in reappraisal relates to less anger, controlling for anxiety and stress (Memedovic, Grisham, Denson, & Moulds, 2010). Compared to low trait reappraisers, high trait reappraisers experience less anger (Mauss, Cook, Cheng, & Gross, 2007) and are better able to use mitigating information to reduce their vengeance and aggression (Bartlett & Anderson, 2011). Given these influences of reappraisal strategy on anger and verbal aggression and of trait reappraisal on aggression, engagement in reappraisal may be a mechanism of change in other forms of aggression.

The aforementioned analysis suggests that rumination activates a process that will lead to punitive action against a partner, whereas cognitive reappraisal will reduce the likelihood of punitive action.

However, this research does not inform as to the type of punitive action that will be enacted, which we address next.

Silent Treatment and Stonewalling

Some forms of punitive action are direct, such as active verbal and physical aggression. However, some relational partners engage in passive aggressive actions, such as the silent treatment and stonewalling (e.g., Wright & Roloff, 2009). The silent treatment is a form of purposeful ostracism when feeling upset with a partner that involves aloof behaviors commonly reported as avoidance of eye contact and ignoring the partner (Williams, 2001). The silent treatment is often used as a form of punishment. For example, individuals who expect mindreading within intimate relationships report using the silent treatment with a partner who is unaware that his or her behavior is upsetting to them (Wright & Roloff, in press). Targets of the silent treatment often do not understand the cause for the silent treatment and report feeling low self-worth, lack of belonging with others, low control, and purposelessness (Williams, 2001).

Some people stonewall, which indicates an unwillingness to communicate when asked by a partner about being upset (Coan & Gottman, 2007). Stonewalling behaviors include active efforts to maintain little facial movement and to avoid paying attention to the partner (Coan & Gottman, 2007). Although stonewalling sometimes is a defensive response to emotional flooding resulting from a partner's harsh criticism, it also can be used offensively to hurt a partner by denying them information or disconfirming their presence (see Wright & Roloff, 2009). In addition to hurting a partner, stonewalling relates to higher likelihood of relationship dissolution (Gottman & Levenson, 1999).

This study extends the effects of rumination and reappraisal by focusing on passive aggressive behaviors of the silent treatment and stonewalling the partner. Since ruminating stimulates negative emotions toward the partner, individuals who are withholding complaints will be more willing to punish the partner with the silent treatment and stonewalling. Cognitively reappraising the provocative actions should reduce negative feelings, which inhibit these passive aggressive responses. Although research demonstrates that the silent treatment and stonewalling can adversely impact a partner and the relationships, it has not addressed whether such sequences influence the person who enacts them, which the following section explores.

Emotional Exhaustion

Use of silent treatment or stonewalling requires monitoring and inhibiting emotional and verbal expressions. This suppression can deplete a limited self-resource when regulating one's thoughts, feelings, and impulses (Muraven & Baumeister, 2000). *Emotional exhaustion* describes the depletion of cognitive and energy resources that can occur when individuals modify their emotional expressions or feelings frequently or over time (Grandey, 2000). Ostracizing another person is a cognitively taxing behavior that predicts less persistence on a challenging problem-solving task and is rated as more difficult than engaging in norms of conversation (Ciarocco, Sommer, & Baumeister, 2001). Although ostracizing can be easier to maintain over time when interaction is infrequent or interdependence is low (Zadro, Arriaga, & Williams, 2008), continuing to ignore a partner in the face of frequent interaction or high interdependence may require effortful monitoring of one's behaviors. Likewise, ostracizers report feeling powerless to stop using this behavior for reasons such as fear of losing face or inability to change the habituated behavior (Zadro et al., 2008). Moreover, suppression can impair cognitive performance (Gross & John, 2003) and cause emotional distress (Hülshager, Lang, & Maier, 2010). Similarly, stonewalling often produces higher physiological arousal in both partners (e.g., Gottman, 1993). Consequently, stonewalling could be exhausting to enact as a relational partner struggles unsuccessfully to keep emotional responses under control. Thus, self-regulation efforts through the silent treatment or stonewalling should deplete one's psychological resources.

Based upon the current analysis, rumination should increase the likelihood of silent treatment and stonewalling, which in turn should increase emotional exhaustion, whereas cognitive reappraisal should show the opposite pattern. Figure 1 displays a conceptual model of the proposed hypotheses of mediation:

Hypothesis 1: The silent treatment will mediate the positive relationship between rumination and emotional exhaustion.

Hypothesis 2: Stonewalling will mediate the positive relationship between rumination and emotional exhaustion.

Hypothesis 3: The silent treatment will mediate the negative relationship between cognitive reappraisal and emotional exhaustion.

Hypothesis 4: Stonewalling will mediate the negative relationship between cognitive reappraisal and emotional exhaustion.

Method

Participants

A total of 411 unpaid participants were recruited from four sources: the Communication Studies undergraduate research pool ($n = 140$) and student groups ($n = 17$) at a medium-sized, Midwestern university, introductory communication courses at a large Eastern university ($n = 239$), and personal networks ($n = 16$). Participants from the research pool and introductory communication courses received research credits, and personal network members were not compensated for their involvement. Participants from

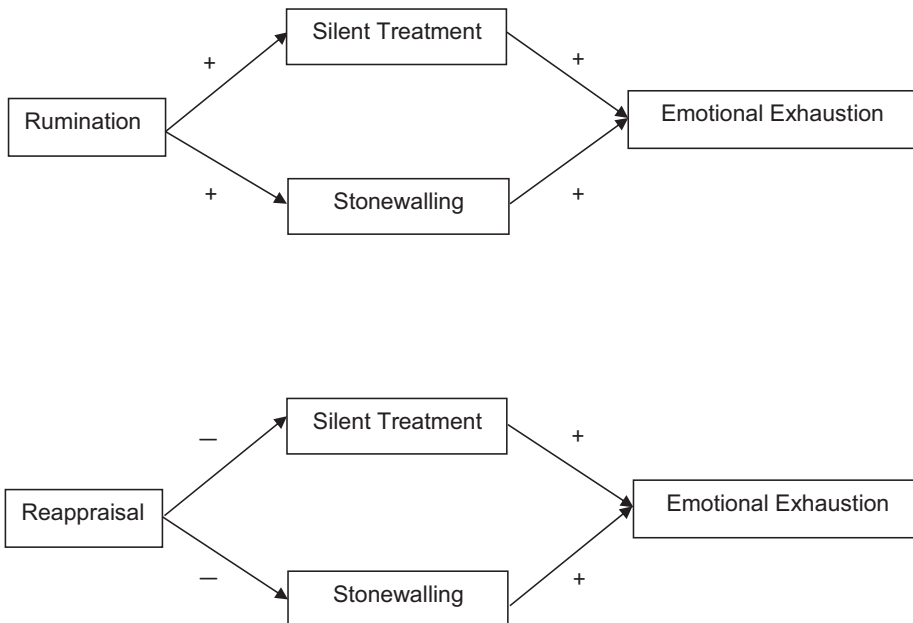


Figure 1. Mediation analysis-conceptual models.

the Eastern university received one point of extra course credit. Although 411 individuals initially participated in the study, 16 individuals had incomplete data, resulting in the final sample of 395 individuals. Those with substantial missing data did not differ significantly from those with usable data in terms of length of withholding, relationship type, or gender. The sample consisted of 255 women (65%) and 140 men (35%). Forty-nine percent of the sample were first-year undergraduates, 26% were sophomores, 16% were juniors, 6% were seniors, and 3% were graduate and postdoctoral students. The mean age of participants was 20.1 years ($SD = 3.97$).

Procedure

Research pool participants accessed the questionnaire link from the departmental research website from which they were redirected to the questionnaire hosted on Qualtrics. All other participants directly accessed the questionnaire via a Qualtrics link. All participants viewed and electronically signed an informed consent form approved by the university Institutional Review Board. All responses were anonymous and researchers did not have access to names of participants involved in the study.

Measures

The questionnaire contained scales assessing characteristics of a recent experience of withholding a complaint from a relational partner and self-reports of rumination, cognitive reappraisal, silent treatment, stonewalling, and emotional exhaustion. Withholding behaviors were enacted with friends ($n = 228$, 57%), romantic partners ($n = 88$, 22%), family members ($n = 53$, 13%), and roommates ($n = 15$, 4%). Of the total sample, 26% reported withholding for days, 32% for weeks, 32% for months, and 10% for years. To enhance the clarity of results, multi-item scales were created using the average of each respondent's total. When a participant did not complete an item from a scale containing three or more items, the average of the participant's completed items was used in place of that missing value.

Rumination

Participants reported the frequency of repetitive thoughts about their partner's behavior (e.g., "I can't stop thinking about this person's behavior and what made me upset") on a reliable ($\alpha = .90$) 4-item scale (Kubiak, Wiedig-Allison, Zgoriecki, & Weber, 2011). Responses ranged from 1 = *not at all* to 5 = *extremely*. On average, participants reported low levels of rumination ($M = 2.66$, $SD = 1.11$).

Reappraisal

Reappraisal was measured using a 4-item scale (Kubiak et al., 2011) that measures the frequency of attempts to change one's thoughts about a partner's behavior (e.g., "I tell myself there are much worse things"). The scale ranged from 1 = *not at all* to 5 = *extremely* and was reliable ($M = 3.22$, $SD = 0.92$, $\alpha = .72$).

Silent Treatment

Participants reported their use of the silent treatment (e.g., "I ignore this person") on a 6-item scale (Wright & Roloff, 2009) that ranged from 1 = *never* to 7 = *often*. On average, use of silent treatment was moderate ($M = 3.20$, $SD = 1.28$). The scale was reliable ($\alpha = .81$).

Stonewalling

Stonewalling was measured using a reliable scale ($M = 3.52$, $SD = 1.45$, $\alpha = .83$) based on Gottman's (1994) description (Wright & Roloff, 2009). On six items, the frequency of stonewalling (e.g., "I deny that I am upset") ranged from 1 = *never* to 7 = *often*.

Emotional Exhaustion

Participants indicated the extent of their emotional exhaustion using a reliable ($\alpha = .91$) 5-item scale (Wharton, 1993). The scale assessed the extent to which participants felt emotional exhaustion (e.g., “emotionally drained” and “used up”) from withholding their irritation and ranged from 1 = *not at all* to 7 = *to a great extent*. On average, participants indicated moderate emotional exhaustion from withholding their irritation ($M = 3.50$, $SD = 1.71$).

Results

Covariates

Table 1 contains the means, standard deviations, correlations, and scale reliabilities for study variables. Because participants reported different types of relationships, were recruited from different sources, and had been withholding complaints for different lengths of times, the following covariates were included in subsequent analyses: romantic relationship, friendship, roommate relationship, research pool, student groups, Eastern university, and length of withholding. Gender and age were also included as covariates to account for inconsistent gender differences in reappraisal (Gross & John, 2003) and for individual differences, respectively.

To test for common methods variance,¹ the Harmon single-factor test (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) was conducted with an exploratory factor analysis of the 25 items in the reappraisal, rumination, silent treatment, stonewalling, and emotional exhaustion scales. The analysis indicated a lack of common methods variance. A confirmatory factor analysis was also conducted to determine whether the data fit the proposed five-factor model.² Based on the sample size and number of variables, indicators of model fit were a comparative fit index $>.92$ and a root mean square error of approximation $<.07$ (Hair, Black, Babin, Anderson, & Tatham, 2006). Results of the first model with uncorrelated error terms fell below these standards, $\chi^2(265, N = 393) = 961.87$, $p < .001$; CFI = .86; RMSEA = .08, 90% CI [0.08, 0.09]. By allowing within-scale correlation of error terms, fit increased to acceptable levels, $\chi^2(253, N = 393) = 497.04$, $p < .001$; CFI = .95; RMSEA = .05, 90% CI [0.04, 0.06].

Hypothesis Testing

Several correlations provide important preliminary information about the hypotheses. First, the correlation between rumination and cognitive reappraisal is small and not statistically significant, suggesting that they are independent processes. Second, there is a statistically significant positive correlation between reported use of the silent treatment and stonewalling, which indicates that they often occur in conjunction. Third, rumination is positively and significantly related to the reported use of the silent treatment and stonewalling and to feeling emotionally exhausted. The patterns are consistent with the first two hypotheses. However, contrary to the third and fourth hypotheses, the significant correlations between cognitive reappraisal and self-reported use of the silent treatment and stonewalling are positive rather than negative, and the correlation between cognitive reappraisal and emotional exhaustion is also positive although not statistically significant.

¹An unrotated principal components analysis with one factor indicated that the factor accounted for 30% of the variance, which falls below the 50% proportion of variance level for indicating common methods variance among the scales of reappraisal, rumination, silent treatment, stonewalling, and emotional exhaustion.

²In some cases, poor fit results from the methodological artifacts such as similar wording and items appearing adjacent to one another. A conservative modification indices standard of 10 was used to examine signs of improving fit by allowing within-scale correlation of error terms. Several modification indices were above 10, most (nine of 12) of which involved the close juxtaposition of stonewalling scale items on the questionnaire.

Table 1
Descriptive Statistics, Correlations, and Scale Reliabilities

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	M	SD
1. Eastern ^a	—	-.84**	-.24**	.01	-.05	.01	-.39**	-.30**	-.06	.14*	.10*	.16*	.17*	.06	0.58	0.49
2. Pool ^b		—	-.15**	.03	.08	-.04	.41**	-.07	-.03	-.09	-.07	-.12*	-.06	-.03	0.34	0.47
3. Groups ^c			—	-.04	-.06	.13*	.02	.44**	.12*	-.12*	-.04	-.02	-.18*	-.07	0.04	0.20
4. Roommate ^d				—	-.22**	-.10**	-.07	-.05	-.03	.02	.04	.16*	.09	.08	0.04	0.19
5. Friend ^e					—	-.60**	.09	-.14**	.02	-.07	-.08	-.05	-.13*	-.12*	0.56	0.50
6. Partner ^f						—	.07	.13*	-.12*	.08	.15**	.01	.12*	.08	0.22	0.42
7. Gender ^g							—	.02	.06	.02	.11*	-.01	.02	.02	0.80	0.56
8. Age								—	.08	-.09	-.01	-.15**	-.20**	-.07	20.11	3.97
9. Withholding length									—	.12*	.03	.09	-.02	.11*	2.26	0.96
10. Rumination										.90	.06	.42**	.23**	.63**	2.66	1.10
11. Reappraisal											.72	.13*	.28**	.10	3.22	0.92
12. Silent treatment												.81	.44**	.45**	3.46	1.42
13. Stonewalling													.83	.31**	3.52	1.45
14. Emotional exhaustion														.91	3.50	1.71

Note. N = 395. Reliability coefficients for multi-item scales reported in bold along diagonal.

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

^aRecruited from Eastern university = 1, recruited from other sources = 0; ^bRecruited from research pool = 1, recruited from other sources = 0; ^cRecruited from student groups = 1, recruited from other sources = 0; ^dRoommate = 1, non-roommate = 0; ^eFriend = 1, non-friend = 0; ^fRomantic partner = 1, non-romantic partner = 0; ^gFemale = 1; Male = 0

All four hypotheses were tested using the regression-based PROCESS macro (Hayes, 2012) in SPSS, controlling for length of withholding, friendship, romantic relationship, roommate relationship, research pool, student group, Eastern university, gender, and age. Separate tests were conducted for these mediated relationships: (a) rumination to emotional exhaustion through silent treatment and stonewalling (in Figure 2) and (b) reappraisal to emotional exhaustion through silent treatment and stonewalling (Figure 3).

Rumination and Passive Aggression

The first hypothesis predicted a positive relationship between rumination and emotional exhaustion through the use of silent treatment. As expected, the indirect path between rumination and emotional exhaustion through silent treatment was positive ($B = .11$, 95% BCI [0.06, 0.18]), and the 95% bootstrap confidence interval (BCI) did not include 0. Thus, the use of silent treatment contributes to the positive association between rumination and emotional exhaustion.

The second hypothesis predicted a positive relationship between rumination and emotional exhaustion through the reported use of stonewalling. In the indirect path, a unit increase in rumination increased stonewalling by .25 units on a 0–7 scale. Confirming the second hypothesis, the positive path between rumination and emotional exhaustion through stonewalling was significant ($B = .03$, 95% BCI [0.005, 0.072]).

In addition to the significant mediated relationships between rumination and emotional exhaustion, the direct path between rumination and emotional exhaustion, controlling for use of silent treatment and stonewalling was also significant ($B = .82$, 95% BCI [0.69, 0.95]). The significant direct path indicates that other mediators may contribute to this relationship.

Reappraisal and Passive Aggression

The third hypothesis predicted a negative relationship between reappraisal and emotional exhaustion through the use of silent treatment. The indirect path between reappraisal and emotional exhaustion

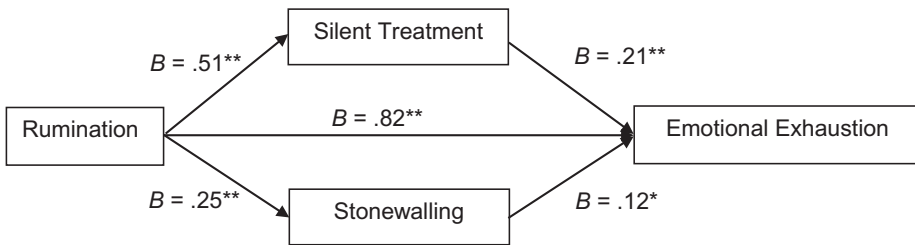


Figure 2. Mediators of rumination on emotional exhaustion. Note: $N = 395$. Number of bootstrap samples = 5,000. Unstandardized coefficients are reported. $*p < .05$. $**p < .01$.

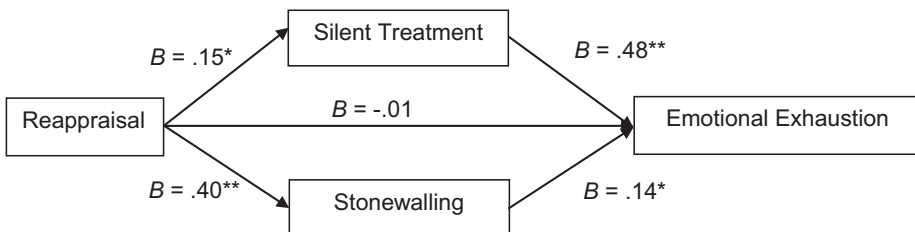


Figure 3. Mediators of reappraisal on emotional exhaustion. Note: $N = 394$. Number of bootstrap samples = 5,000. Unstandardized coefficients are reported. $*p < .05$. $**p < .01$.

through silent treatment was not significant ($B = .07$, 95% BCI $[-0.003, 0.159]$). Failure to confirm the hypothesis resulted from the positive and statistically significant path from cognitive reappraisal to the silent treatment ($B = .15$, 95% CI $[0.001, 0.306]$).

The fourth hypothesis predicted a negative relationship between reappraisal and emotional exhaustion through the use of stonewalling. Although the indirect path between reappraisal and emotional exhaustion through stonewalling was significant, it was in the direction opposite to prediction ($B = .06$, 95% BCI $[0.003, 0.126]$). Disconfirmation of the fourth hypothesis resulted from the positive and statistically significant path from cognitive reappraisal to stonewalling ($B = .40$, 95% CI $[0.24, 0.54]$).

Exploratory Analysis

Disconfirmation of the third and fourth hypotheses seems to contradict other studies that indicate the effectiveness and low cost of using reappraisal before negative emotional responses are fully developed. However, it is possible that we overlooked an important factor related to the effectiveness of reappraisal. Perhaps reappraisal requires time and practice for it to effectively control the negative emotional and passive aggressive responses to a partner’s behavior. Conflict can stimulate emotional flooding, which can carry over into feelings of postepisodic hyperarousal. These intense feelings may override the ability of an individual to effectively reappraise the situation and this may be especially true in the early stages of a repeated conflict. However, over time, individuals may develop less negative understanding of the event, which allows them to control their emotions and prevent passive aggressive responses. Self-control resources can increase over time with practice and contribute to reduced aggressive behaviors (Denson, Capper, Oaten, Friese, & Schofield, 2011). Thus, cognitive reappraisal may be a more effective long-term strategy, particularly for repeated anger-inducing situations (Denson, Moulds, & Grisham, 2012).

To test this notion, we used Hayes’ PROCESS macro to examine the moderating effect of withholding length on the indirect association between reappraisal and emotional exhaustion. Figure 4 depicts a conceptual model of the moderated mediation, and Table 2 displays the tests of moderated mediation. The test of moderated mediation through silent treatment was significant and negative ($B = -.09$, 95% CI $[-0.19, -0.01]$), and the test of moderated mediation through stonewalling was also negative but not significant ($B = -.01$, 95% CI $[-0.04, 0.01]$). Thus, longer periods of withholding reduce the association of reappraisal with increased emotional exhaustion through higher levels of the silent treatment and stonewalling. These conditional effects are presented in Table 3 according to percentiles of withholding length and indicate two patterns of change in aggression. First, reappraisal initially relates to higher levels of silent treatment, as indicated by the significant positive slopes for individuals who have been with-

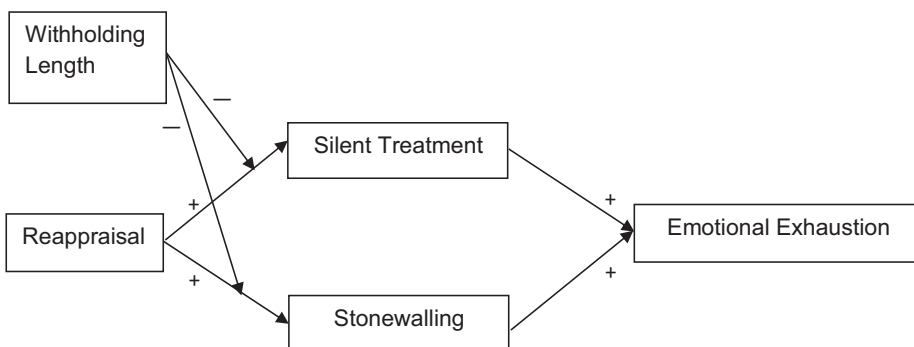


Figure 4. Moderated mediation—conceptual model.

Table 2
Exploratory Analysis of Moderated Mediation

Paths	<i>B</i> *	<i>SE</i>	95% LLCI	95% ULCI
Reappraisal→Silent treatment	.33	0.19	−0.04	0.71
Withholding length→Silent treatment	.60	0.25	0.11	1.10
Reappraisal × Withholding length→Silent treatment	−.14	0.08	−0.29	0.01
Reappraisal→Stonewalling	.45	0.19	0.08	0.82
Withholding length→Stonewalling	.004	0.254	−0.50	0.50
Reappraisal × Withholding length→Stonewalling	−.03	0.08	−0.18	0.12
Reappraisal→Emotional exhaustion	.11	0.23	−0.33	0.56
Withholding length→Emotional exhaustion	.24	0.30	−0.35	0.84
Silent treatment→Emotional exhaustion	.46	0.06	0.35	0.58
Stonewalling→Emotional exhaustion	.16	0.06	0.04	0.28
Reappraisal × Withholding length→Emotional exhaustion	−.04	0.09	−0.22	0.13

Notes. *N* = 394. Number of bootstrap samples = 5,000.
*Unstandardized coefficients.

Table 3
Conditional Effects of Withholding Length on H3 and H4

Mediator	Moderator	<i>B</i> *	<i>SE</i>	95% Boot LLCI†	95% Boot ULCI†
Silent treatment	25th percentile of withholding length	.22	0.08	0.07	0.40
Silent treatment	50th percentile of withholding length	.11	0.05	0.02	0.21
Silent treatment	75th percentile of withholding length	.01	0.05	−0.10	0.12
Silent treatment	90th percentile of withholding length	−.10	0.09	−0.28	0.08
Stonewalling	25th percentile of withholding length	.17	0.06	0.08	0.29
Stonewalling	50th percentile of withholding length	.14	0.04	0.07	0.23
Stonewalling	75th percentile of withholding length	.11	0.04	0.04	0.20
Stonewalling	90th percentile on withholding length	.08	0.06	−0.02	0.20

Notes. *N* = 394; Number of bootstrap samples = 5,000.
*Unstandardized coefficients.
†Bias-corrected 95% bootstrapped confidence intervals.

holding complaints for shorter periods. Second, individuals who withhold for a longer time are less likely to engage in silent treatment when they use reappraisal, as evidenced by the decreasing magnitude of positive slopes to a negative slope. Although the moderated mediation through stonewalling was not significant, a similar pattern of positive slopes with decreasing magnitude emerged, suggesting that individuals who withhold for a longer time are less likely than those who withhold for shorter times to use stonewalling when they engage in reappraisal.

Discussion

This study confirmed the positive relationship between rumination and emotional exhaustion as mediated by the silent treatment and stonewalling. These findings provide important insights into conflict and emotion regulation processes. Withholding complaints is often viewed as a passive withdrawal from conflict, but our research shows that this is not always the case. When individuals frequently ruminated

about a provocative event, they enacted more punitive actions toward the partner. Prior research suggests that rumination can prompt overtly aggressive actions toward a partner, but our results show that it can also stimulate passive aggressive responses like the silent treatment and stonewalling. Although the silent treatment and stonewalling are punitive forms of withholding that are often used in conjunction, they are independent mediators. Extant research shows that the silent treatment and stonewalling are harmful to the relationship and to the partners who experience them, and our research shows that both punitive actions are costly for the person who enacts them and can lead to emotional exhaustion. The positive association between these punitive actions and emotional exhaustion is in line with previous evidence of emotional suppression causing emotional exhaustion (Hülshager et al., 2010). The positive and significant direct relationship between rumination and emotional exhaustion also supports the utility of the strength model of self-control in predicting the link between rumination and aggression (Denson, Pedersen, Friese, Hahm, & Roberts, 2011). Although we focused on aggression as a behavioral link between rumination and emotional exhaustion, the present findings indicate a potential reciprocal association between aggression and emotional exhaustion in which individuals who are more emotionally exhausted by rumination may engage in more aggressive behaviors.

However, we found no support for the predictions that the negative relationship between cognitive reappraisal and emotional exhaustion would be mediated by the reported use of the silent treatment and stonewalling. Contrary to research supporting the mitigating effect of reappraisal on aggressive behaviors (Bartlett & Anderson, 2011), the silent treatment was not a statistically significant mediator of reappraisal and emotional exhaustion. Furthermore, the significant indirect path through stonewalling was positive rather than negative, suggesting that cognitive reappraisal increases rather than decreases stonewalling and emotional exhaustion.

Instead, we found evidence that individuals who have been withholding for shorter times report higher levels of silent treatment compared to those who have been withholding for longer times, which implies that cognitive reappraisal may shift from being an initial stimulant of the silent treatment to a later inhibitor of the silent treatment. As reappraisal takes its effect in reducing negative emotional reactions to an incident, use of stonewalling may also decrease, although it is not eliminated entirely. Similarly, individuals who have been withholding for longer times report lower levels of emotional exhaustion. These additional findings suggest that cognitive reappraisal may be effective over time. This increasing effectiveness may also reflect greater reappraisal ability that occurs with more frequent reappraisal (McRae, Jacobs, Ray, John, & Gross, 2012). In contrast to the strength model of self-control, the results suggest potential practice effects that increase the effectiveness of reappraisal. Thus, under some conditions, withholding may serve a positive function for individuals. More research is needed to test the explanation of practice effects against other alternatives such as decreasing motivation to withhold or increasing challenge of withholding over time.

Future Directions

These results partially confirm our predictions of cognitive processes relating to emotional exhaustion through the use of silent treatment and stonewalling. The significant direct paths in the first two hypotheses indicate that other factors may contribute to the relationship between rumination and emotional exhaustion. First, people differ in general levels of anger experienced (Spielberger, 1988). High trait anger individuals may respond differently to an interpersonal offense than low trait anger individuals. Compared to high trait anger individuals who tend to engage in vengeful rumination (Siewert, Kubiak, Jonas, & Weber, 2011), low trait anger individuals may engage in rumination focused on other motives such as seeking causal clarity or problem-solving that should relate to less aggressive responses. Second, research also shows that individuals may vary in experiences of self-pity in times of stress (Elson, 1997). Experiencing high levels of self-pity relates to a greater tendency for suppressing one's anger (Stöber, 2003), which may intensify the positive relationship between rumination and emotional exhaustion. Third,

rumination may contribute to emotional exhaustion by activating more negative appraisals of a partner's intents and disposition that require effort to continue withholding from that individual. For example, brain regions activated during rumination are also associated with making attributions (Denson, Pedersen, Ronquillo, & Nandy, 2009).

The unconfirmed direct path between reappraisal and emotional exhaustion suggests that future studies should examine additional factors. Our study compared more or less functional forms of attending to negative thoughts and emotions, cognitive reappraisal and rumination, respectively. We were primarily interested in the extent to which individuals try to cognitively appraise the event rather than how they did so. People may engage in cognitive reappraisal through different ways. For instance, reappraisal may vary in valence (neutral, positive, and negative functional). Neutral reappraisal involves reinterpreting a situation in an unemotional or detached manner, which relates to less negative emotion (Butler et al., 2003). Use of positive reappraisal after a negative emotion is triggered relates to less negative mood and more positive mood compared to rumination (Rusting & DeHart, 2000). Negative functional reappraisal may be useful when dealing with more challenging emotional situations in which neutral or positive reappraisal would be more difficult to implement (Cristea, Tatar, Nagy, & David, 2012). Future examinations of positive emotions will also help to determine whether individuals reduce their negative responses through attempts to generate positive emotions.

An additional area for future research is to examine the cognitive and behavioral activity relating to withholding in the workplace. For example, employees often withhold their observations from someone who would be able to change the situation (Trinka & Giacalone, 2005). One form of this employee silence involves prioritizing self-interest at the potential cost of another's well-being (Knoll & van Dick, 2013). To date, literature on silence in organizations has not paid much attention to more subtle forms of opportunistic silence such as withholding information. Examining the cognitive and behavioral manifestations of withholding in the workplace will hopefully provide organizations with deeper insight into how their employees may be "suffering in silence."

Limitations

The findings of this study are constrained by some methodological limitations. First, the self-report data were not verified by a relational partner or observations and focused on the experience of withholding complaints. The measures of withholding behaviors have been verified by behavioral data (Williams, 2001). Second, the use of a student sample may limit the degree of generalizability to nonstudent samples. However, studies using the measures of cognitive processing and withholding behaviors indicate that these cognitive and emotional responses occur in a variety of samples such as dating partners (Wright & Roloff, 2009), marriage (Gottman, 1994), and parent-child relationships (Dailey & Palomares, 2004). Third, the cross-sectional design precludes definitive claims of causality and longitudinal course for the sequences described above. Fourth, the high correlation between use of the silent treatment and stonewalling may have introduced an issue of multicollinearity that could reduce the unique influence of these variables. Finally, participants reported on general cognitive processes and withholding behaviors, which may differ from cognitive processes and withholding behaviors in a specific episode.

Conclusion

Despite these limitations, the present study offers evidence for the active nature of withholding and an emotional cost of withholding. In finding that people who withhold complaints may use the silent treatment and stonewalling, the current study demonstrates that withholding not only involves action but also can involve punitive behaviors. This study also identifies emotional exhaustion as a negative consequence of engaging in these punitive behaviors, which expands our understanding of the costs of withholding

complaints for individuals. Further exploration of the emotional and cognitive factors proposed above will be an important focus for future research in workplace emotions and organizational outcomes.

References

- Anderson, C. A., & Bushman, B. J. (2002). Human aggression. *Annual Review of Psychology*, *53*, 27–51. doi:10.1146/annurev.psych.53.100901.135231
- Anestis, M. D., Anestis, J. C., Selby, E. A., & Joiner, T. E. (2009). Anger rumination across forms of aggression. *Personality and Individual Differences*, *46*, 192–196. doi:10.1016/j.paid.2008.09.026
- Bartlett, C. P., & Anderson, C. A. (2011). Reappraising the situation and its impact on aggressive behavior. *Personality and Social Psychology Bulletin*, *37*, 1564–1573. doi:10.1177/0146167211423671
- Butler, E. A., Egloff, B., Wilhelm, F. H., Smith, N. C., Erickson, E. A., & Gross, J. J. (2003). The social consequences of expressive suppression. *Emotion*, *3*, 48–67. doi:10.1037/1528-3542.3.1.48
- Ciarocco, N. J., Sommer, K. L., & Baumeister, R. F. (2001). Ostracism and ego depletion: The strains of silence. *Personality and Social Psychology Bulletin*, *27*, 1156–1163. doi:10.1177/0146167201279008
- Coan, J. A., & Gottman, J. M. (2007). The specific affect coding system (SPAFF). In J. A. Coan & J. B. Allen (Eds.), *Handbook of emotion elicitation and assessment. Series in affective science* (pp. 267–285). New York, NY: Oxford University Press.
- Cristea, I. A., Tatar, A. S., Nagy, D., & David, D. (2012). The bottle is half empty and that's bad, but not tragic: Differential effects of negative functional reappraisal. *Motivation and Emotion*, *36*, 550–563. doi:10.1007/s11031-012-9277-6
- Dailey, R. M., & Palomares, N. A. (2004). Strategic topic avoidance: An investigation of topic avoidance frequency, strategies used, and relational correlates. *Communication Monographs*, *71*, 471–496. doi:10.1080/0363452042000307443
- Denson, T. F., Capper, M. M., Oaten, M., Friese, M., & Schofield, T. P. (2011). Self-control training decreases aggression in response to provocation in aggressive individuals. *Journal of Research in Personality*, *45*, 252–256. doi:10.1016/j.jrp.2011.02.001
- Denson, T. F., Moulds, M. L., & Grisham, J. R. (2012). The effects of analytical rumination, reappraisal, and distraction on anger experience. *Behavior Therapy*, *43*, 355–364. doi:10.1016/j.beth.2011.08.001
- Denson, T. F., Pedersen, W. C., Friese, M., Hahm, A., & Roberts, L. (2011). Understanding impulsive aggression: Angry rumination and reduced self-control capacity are mechanisms underlying the provocation-aggression relationship. *Personality and Social Psychology Bulletin*, *37*, 850–862. doi:10.1177/0146167211401420
- Denson, T. F., Pedersen, W. C., & Miller, N. (2006). The displaced aggression questionnaire. *Journal of Personality and Social Psychology*, *90*, 1032–1051. doi:10.1037/0022-3514.90.6.1032
- Denson, T. F., Pedersen, W. C., Ronquillo, J., & Nandy, A. S. (2009). The angry brain: Neural correlates of anger, angry rumination, and aggressive personality. *Journal of Cognitive Neuroscience*, *21*, 734–744. doi:10.1162/jocn.2009.21051
- Elson, M. (1997). Self-pity, dependence, manipulation, and exploitation: A view from self psychology. *Annual of Psychoanalysis*, *25*, 5–16.
- Fabiansson, E. C., Denson, T. F., Moulds, M. L., Grisham, J. R., & Schira, M. M. (2012). Don't look back in anger: Neural correlates of reappraisal, analytical rumination, and angry rumination during recall of an anger-inducing autobiographical memory. *Neuroimage*, *59*, 2974–2981. doi:10.1016/j.neuroimage.2011.09.078
- Frisby, B. N., Byrnes, K., Mansson, D. H., Booth-Butterfield, M., & Birmingham, M. K. (2011). Topic avoidance, everyday talk, and stress in romantic military and non-military couples. *Communication Studies*, *62*, 241–257. doi:10.1080/10510974.2011.553982
- Gottman, J. M. (1993). A theory of marital dissolution and stability. *Journal of Family Psychology*, *7*, 57–75. doi:10.1037/0893-3200.7.1.57
- Gottman, J. M. (1994). *What predicts divorce?: The relationship between marital processes and marital outcomes*. Hillsdale, NJ: Erlbaum.

- Gottman, J. M., & Levenson, R. W. (1999). What predicts change in marital interaction over time? A study of alternative models. *Family Process*, 38, 143–158. doi:10.1111/j.1545-5300.1999.00143.x
- Grandey, A. A. (2000). Emotional regulation in the workplace: A new way to conceptualize emotional labor. *Journal of Occupational Health Psychology*, 5, 95–110. doi:10.1037/1076-8998.5.1.95
- Gross, J. J. (1998). Antecedent-and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, 74, 224–237. doi:10.1037/0022-3514.74.1.224
- Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science*, 10, 214–219. doi:10.1111/1467-8721.00152
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348–362. doi:10.1037/0022-3514.85.2.348
- Hair, J. F., Jr, Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle, NJ: Pearson Prentice Hall.
- Hayes, A. F. (2012). *PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling*. [White paper]. Retrieved from <http://www.afhayes.com/public/process2012.pdf>
- Hülsheger, U. R., Lang, J. W., & Maier, G. W. (2010). Emotional labor, strain, and performance: Testing reciprocal relationships in a longitudinal panel study. *Journal of Occupational Health Psychology*, 15, 505–521. doi:10.1037/a0021003
- Knoll, M., & van Dick, R. (2013). Do I hear the whistle. . .? A first attempt to measure four forms of employee silence and their correlates. *Journal of Business Ethics*, 113, 349–362. doi:10.1007/s10551-012-1308-4
- Kubiak, T., Wiedig-Allison, M., Zgoriecki, S., & Weber, H. (2011). Habitual goals and strategies in anger regulation. *Journal of Individual Differences*, 32, 1–13. doi:10.1027/1614-0001/a000030
- Lazarus, R. S. (1991). Progress on a cognitive-motivational-relational theory of emotion. *American Psychologist*, 46, 819–834. doi:10.1037/0003-066X.46.8.819
- Maldonado, R. C., DiLillo, D., & Hoffman, L. (2014). Can college students use emotion regulation strategies to alter intimate partner aggression-risk behaviors? An examination using I3 theory. *Psychology of Violence*. Advance online publication. doi:10.1037/a0035454
- Mauss, I. B., Cook, C. L., Cheng, J. Y., & Gross, J. J. (2007). Individual differences in cognitive reappraisal: Experiential and physiological responses to an anger provocation. *International Journal of Psychophysiology*, 66, 116–124. doi:10.1016/j.ijpsycho.2007.03.017
- McCullough, M. E., Bono, G., & Root, L. M. (2007). Rumination, emotion, and forgiveness: Three longitudinal studies. *Journal of Personality and Social Psychology*, 92, 490–505. doi:10.1037/0022-3514.92.3.490
- McRae, K., Jacobs, S. E., Ray, R. D., John, O. P., & Gross, J. J. (2012). Individual differences in reappraisal ability: Links to reappraisal frequency, well-being, and cognitive control. *Journal of Research in Personality*, 46, 2–7. doi:10.1016/j.jrp.2011.10.003
- Memedovic, S., Grisham, J. R., Denson, T. F., & Moulds, M. L. (2010). The effects of trait reappraisal and suppression on anger and blood pressure in response to provocation. *Journal of Research in Personality*, 44, 540–543. doi:10.1016/j.jrp.2010.05.002
- Muraven, M., & Baumeister, R. F. (2000). Self-regulation and depletion of limited resources: Does self-control resemble a muscle? *Psychological Bulletin*, 126, 247–259. doi:10.1037/0033-2909.126.2.247
- Pedersen, W. C., Denson, T. F., Goss, R. J., Vasquez, E. A., Kelley, N. J., & Miller, N. (2011). The impact of rumination on aggressive thoughts, feelings, arousal, and behaviour. *British Journal of Social Psychology*, 50, 281–301. doi:10.1348/014466610X515696
- Peled, M., & Moretti, M. M. (2010). Ruminating on rumination: Are rumination on anger and sadness differentially related to aggression and depressed mood? *Journal of Psychopathology and Behavioral Assessment*, 32, 108–117. doi:10.1007/s10862-009-9136-2
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903. doi:10.1037/0021-9010.88.5.879

- Pruitt, D. G., & Rubin, J. Z. (1986). *Social conflict: Escalation, impasse, and resolution*. Reading, MA: Addison-Wesley.
- Roloff, M. E., & Johnson, D. I. (2001). Reintroducing taboo topics: Antecedents and consequences of putting topics back on the table. *Communication Studies*, 52, 37–50. doi:10.1080/10510970109388539
- Rusting, C. L., & DeHart, T. (2000). Retrieving positive memories to regulate negative mood: Consequences for mood-congruent memory. *Journal of Personality and Social Psychology*, 78, 737–752. doi:10.1037/0022-3514.78.4.737
- Siewert, K., Kubiak, T., Jonas, C., & Weber, H. (2011). Trait anger moderates the impact of anger-associated rumination on social well-being. *Personality and Individual Differences*, 51, 769–774. doi:10.1016/j.paid.2011.06.030
- Slatcher, R. B., Robles, T. F., Repetti, R. L., & Fellows, M. D. (2010). Momentary work worries, marital disclosure and salivary cortisol among parents of young children. *Psychosomatic Medicine*, 72, 887–896. doi:10.1097/PSY.0b013e3181f60fcc
- Spielberger, C. D. (1988). *Manual for the state-trait anger expression scale (STAXI)*. Odessa, FL: Psychological Assessment Resources.
- Sprecher, S., & Felmlee, D. (1993). Conflict, love and other relationship dimensions for individuals in dissolving, stable, and growing premarital relationships. *Free Inquiry in Creative Sociology*, 21, 115–125.
- Stöber, J. (2003). Self-pity: Exploring the links to personality, control beliefs, and anger. *Journal of Personality*, 71, 183–220. doi:10.1111/1467-6494.7102004
- Trinka, J., & Giacalone, J. (2005). The silence of the stakeholders: Zero decibel level at Enron. *Journal of Business Ethics*, 58, 237–248. doi:10.1007/s10551-005-1418-3
- Wang, Q., Fink, E. L., & Cai, D. A. (2012). The effect of conflict goals on avoidance strategies: What does not communicating communicate? *Human Communication Research*, 38, 222–252. doi:10.1111/j.1468-2958.2011.01421.x
- Webb, T. L., Miles, E., & Sheeran, P. (2012). Dealing with feeling: A meta-analysis of the effectiveness of strategies derived from the process model of emotion regulation. *Psychological Bulletin*, 138, 775–808. doi:10.1037/a0027600
- Wharton, A. S. (1993). The affective consequences of service work managing emotions on the job. *Work and Occupations*, 20, 205–232. doi:10.1177/0730888493020002004
- White, B. A., & Turner, K. A. (2014). Anger rumination and effortful control: Mediation effects on reactive but not proactive aggression. *Personality and Individual Differences*, 56, 186–189. doi:10.1016/j.paid.2013.08.012
- Williams, K. D. (2001). *Ostracism: The power of silence*. New York, NY: Guilford Press.
- Wright, C. N., & Roloff, M. E. (2009). Relational commitment and the silent treatment. *Communication Research Reports*, 26, 12–21. doi:10.1080/08824090802636967
- Wright, C. N., & Roloff, M. E. (in press). You should *just know* why I'm upset: Expectancy violation theory and the influence of mind reading expectations (MRE) on responses to relational problems. *Communication Research Reports*.
- Zadro, L., Arriaga, X. B., & Williams, K. D. (2008). Relational ostracism. In J. P. Forgas & J. Fitness (Eds.), *Social relationships: Cognitive, affective, and motivational processes* (pp. 305–320). New York, NY: Psychology Press.

Esther Liu is a Ph.D. candidate in Communication Studies at Northwestern University. Her research interests center on interpersonal conflict with a focus on emotional self-regulation, conflict avoidance, and its implications for well-being.

Michael E. Roloff (Ph.D., Michigan State University) is Professor of Communication Studies at Northwestern University. He researches in the area of conflict management. He wrote *Interpersonal Communication: The Social Exchange Approach*, and coedited *Persuasion: New Directions in Theory and Research* (with Gerald R. Miller), *Interpersonal Processes: New Directions in Communication Research* (with Gerald R. Miller), *Social Cognition and Communication* (with Charles R. Berger), and *Communication and*

Negotiation (with Linda Putnam). He has published in journals such as *Communication Monographs*, *Communication Research*, *Human Communication Research*, *International Journal of Conflict Management*, *Journal of Language and Social Psychology*, *Journal of Social and Personal Relationships*, and *Personal Relationships*. He served as editor of *The Communication Yearbook* and currently is co-editor of *Communication Research*. He is a distinguished scholar of the National Communication Association and Fellow of the International Communication Association.