

Social Psychology

# Does Age Buffer or Exacerbate the Impact of Sadness and Anger on Romantic Relationships?

Shaina Munin<sup>1</sup>, Lisa A. Neff<sup>2a</sup>, Jennifer S. Beer<sup>1</sup>

<sup>1</sup> Department of Psychology, The University of Texas at Austin, TX, US, <sup>2</sup> Department of Human Development and Family Sciences, The University of Texas at Austin, TX, US

Keywords: emotions, aging, romantic relationships, conflict resolution

<https://doi.org/10.1525/collabra.92976>

---

## Collabra: Psychology

Vol. 10, Issue 1, 2024

---

Expressions of sadness and anger during a romantic relationship conflict can have distinct impacts on partners' feelings of closeness and perceptions of conflict resolution. For example, previous research with younger couples suggests that expressions of sadness can help partners feel closer to one another, while expressions of anger tend to harm closeness and short-term conflict resolution. However, research has not considered whether older couples differ in their responses to sadness and anger expression during conflict, despite different theories of aging which suggest that older adults may be better or worse at regulating negative emotion in their relationships than younger adults. The current study (N = 280 dating and married couples, 30–88 years old) tested whether age buffers or exacerbates the effects of observed emotional expression (sadness or anger) on partners' perceptions of closeness and conflict resolution. Contrary to the pre-registered hypotheses derived from theories of aging and emotion, no significant age differences in partners' responses to sadness or anger expressions emerged. Expressions of sadness were also not significantly related to perceptions of closeness or conflict resolution. However, consistent with previous research, expressions of anger negatively related to both partners' perceptions of closeness and conflict resolution. The present findings extend previous research by testing whether expressions of sadness and anger have distinct impacts at multiple stages of the lifespan. Additionally, the non-significant age differences contribute to a growing literature which identifies contexts where age differences in responses to negative emotional expression may be less likely to emerge.

Do expressions of sadness and anger during conflicts with a romantic partner benefit or damage the relationship, and are these effects buffered or exacerbated as individuals grow older? Theories suggest that older adults may be better protected from negativity in their relationships yet especially susceptible to damaging effects of negativity when it becomes uncontrollable (Carstensen et al., 1999; Charles, 2010). Moreover, although previous research finds that expressions of sadness and anger in relationship conflicts have distinct roles in shaping feelings of closeness to one's partner and perceptions of conflict resolution within younger couples (Baker et al., 2014; Lemay et al., 2012; Sanford, 2007), the role of specific negative emotions in relationship conflicts has been understudied in older couples. Thus, the current research builds on existing work by testing hypotheses about how age may shape the association between sadness and anger expressions during conflict and

partners' perceptions of closeness and conflict resolution immediately following the conflict.

### How Might Responses to a Partner's Negativity Change with Age?

Socioemotional selectivity theory (Carstensen et al., 1999) and strength and vulnerability integration (Charles, 2010) suggest that reactions to negative emotions expressed during interpersonal interactions may change as individuals grow older. That is, the sense that one has decreased time left to live motivates older individuals to maintain harmonious close relationships (Carstensen et al., 1999); thus, older adults employ strategies to enhance positivity and avoid or minimize negativity within their social interactions (Carstensen et al., 1999; Charles & Carstensen, 2010). For example, older adults tend to focus their attention on positive information in their relationship interactions (e.g., closeness: Rohr et al., 2019; Seider et al., 2009)

---

<sup>a</sup> Correspondence concerning this article should be addressed to Lisa Neff, 108 E. Dean Keeton St. Stop A2702, Austin, TX, 78712.  
Email: [lneff@austin.utexas.edu](mailto:lneff@austin.utexas.edu)

while overlooking or excusing their partner's negative behavior (Birditt et al., 2005). Thus, when relationship conflicts do arise, older adults are more likely to positively interpret their partner's negative behavior (Story et al., 2007).

Furthermore, strength and vulnerability integration makes an additional prediction about how older adults may respond when they are unable to control their exposure to highly negative emotions in relationship interactions (Charles, 2010). For instance, some research has found that older adults report greater emotional distress than younger adults when everyday interpersonal tensions are not successfully minimized and instead escalate into an argument (Birditt, 2014). Therefore, in the specific instance of uncontrollable negativity, strength and vulnerability integration posits that older adults no longer respond more positively to negative emotion and may even respond more negatively than younger adults (Charles, 2010; Charles & Carstensen, 2010; Charles & Luong, 2013).

However, few empirical studies have tested whether predictions from theories on aging and emotional processing extend to older adults' responses to negative romantic relationship interactions. The few studies that have directly observed couples' conflict conversations have focused primarily on age differences in the emotions and behaviors expressed during the conversation (e.g., Levenson et al., 1994; Verstaen et al., 2020), rather than age differences in reactions to the emotions and behaviors that are expressed. In fact, to the authors' knowledge, only two studies have investigated age differences in responses to romantic conflict discussions, and both studies found that older married couples generally evaluated the interaction more positively than did middle-aged married couples (Smith et al., 2009; Story et al., 2007).

## Investigating the Distinct Functions of Sadness and Anger Across the Lifespan

### *Sadness and Anger May Help and Hurt in Younger Couples' Relationship Conflicts*

Although some research has demonstrated age differences in couples' reactions to negativity in their romantic conflicts, a more complete understanding of these processes may require a consideration of how partners respond to specific negative emotions. Different negative emotions have been shown to have distinctive functions: for example, expressions of sadness function to elicit support and concern from others (Kunzmann et al., 2014; van Kleef & Côté, 2022), whereas expressions of anger function to assert control over others (Kunzmann et al., 2014; Lemay et al., 2012; van Kleef & Côté, 2022). Therefore, sadness and anger convey different messages regarding partners' relationship concerns, which lead to distinct impacts on partners' feelings of closeness and perceptions of conflict resolution (Lemay et al., 2012; Sanford, 2007).

In younger couples, sadness and hurt feelings have been associated with increased feelings of closeness but appear to have mixed effects on perceptions of conflict resolution. Some previous research on emotional expression within couples' relationships has considered sadness and hurt

feelings in a single category (e.g., Overall & McNulty, 2017; Sanford, 2007), as both can reflect a perceived loss of social connection and can elicit empathic concern from one's partner (Lemay et al., 2012; van Kleef & Côté, 2022). Individuals often perceive their partner's expression of hurt feelings as a sign that their partner is committed to and values the relationship (Lemay et al., 2012; Overall & McNulty, 2017), and thus perceptions of partner sadness and hurt feelings have been shown to strengthen feelings of closeness during a conflict (Sanford, 2007). Indeed, when individuals believe their partner's feelings are hurt, they are more likely to enact constructive behaviors, such as displays of affection, which lead to increases in both partners' reports of their care and regard for the other (Lemay et al., 2012). However, expressions of sadness and hurt feelings may not always be beneficial for conflict resolution. Sadness and hurt feelings can help facilitate conflict resolution by promoting constructive communication which aims to de-escalate tension (Lemay et al., 2012; Sanford, 2007), yet when these feelings are accompanied by interpersonal withdrawal, they can be ineffective at motivating change (Overall & McNulty, 2017) and reduce perceptions of conflict success (Overall et al., 2013).

Unlike sadness, which can bring partners closer together, expressions of anger toward one's partner have been found to undermine younger couples' closeness and conflict resolution in the moment. Individuals tend to perceive their partner's expressions of anger as reflecting a lack of commitment to the relationship and a desire to control the other partner's behavior (Lemay et al., 2012), and thus partner perceptions of anger have been found to weaken feelings of closeness in relationship conflicts (Sanford, 2007). Indeed, when individuals are angry during a romantic conflict, both partners are more likely to enact destructive behaviors (e.g., blaming and criticism), which lead to decreases in individuals' reports of their care and regard for their partner (Lemay et al., 2012). The destructive communication associated with anger can also undermine immediate perceptions of conflict resolution (Sanford, 2007). That is, although individuals' expressions of anger can motivate behavioral change in their partner that aids problem resolution in the long-term (Overall et al., 2009; Overall & McNulty, 2017), anger is often associated with immediate perceptions that the discussion was unsuccessful (Overall et al., 2009, 2013).

### *Distinct Functions of Sadness and Anger May Also Emerge in Older Couples*

The distinct functions of sadness and anger found in younger adults' relationships may be especially evident in older age, as some previous work highlights the possibility that compared to younger adults, older adults may benefit more from sadness and less from anger (Kunzmann et al., 2014). For instance, sadness may help older adults cope with increasing losses of social and physical resources by eliciting support from others (Charles & Carstensen, 2010; Kunzmann et al., 2014), whereas anger may be incompatible with older adults' motivation to maintain harmonious relationships (Carstensen et al., 1999; Kunzmann et al.,

2014). Indeed, studies have found that older adults experience sadness more strongly (Haase et al., 2012; Lwi et al., 2019; Seider et al., 2011) and experience anger less strongly (Blanchard-Fields & Coats, 2008; Charles & Carstensen, 2008; Haase et al., 2012; Kunzmann & Thomas, 2014) than younger adults. However, existing work on the functions of sadness and anger for older adults focuses on individuals' own emotional experience, and little is known about the impact of sadness and anger expressions received from a partner in older adults' romantic relationships.

## The Present Research

The current study builds on both (a) theories of aging and emotion and (b) previous research on the functions of sadness and anger in older adults by testing whether age significantly shapes responses to sadness and anger expressions arising from a conflict conversation in romantic couples. That is, an integration of theories of aging and the discrete emotions approach would hypothesize that older adults may respond more positively to sadness and less negatively to anger in their relationship conflicts than younger adults (i.e., higher closeness and conflict resolution). However, partners may not always be able to minimize highly negative emotions elicited in a romantic conflict (Birditt, 2014), and thus some romantic conflicts may be characterized by uncontrollable negativity. When expressions of sadness and anger are uncontrollable in romantic conflicts, the strength and vulnerability integration model extended to the discrete emotions approach would additionally suggest that the benefits of sadness may be weaker for older adults and the harmful effects of anger may be exacerbated, relative to younger adults (i.e., lower closeness and conflict resolution).

The current work aims to advance our understanding of how responses to distinct negative emotions (i.e., sadness and anger) expressed during relationship conflict may be moderated by age. To date, previous research often fails to differentiate negative emotional expression in relationships into specific emotions; rather, negative emotions are combined into a single category (Kashdan et al., 2007; Overall et al., 2020; Rauer & Volling, 2005; Rohr et al., 2019). Even when distinct emotions are investigated (e.g., Overall et al., 2013; Sanford, 2007), it is rare that their impact is considered on both closeness and conflict resolution within the same study. Moreover, much of the existing work examining the role of specific negative emotional expression in assessments of conflict outcomes has studied couples in their twenties and thirties (e.g., Kim et al., 2015; Lemay et al., 2012), and no such work has focused on older adults. The current sample includes both newly dating couples and long-term married couples of all ages, in contrast to previous research which often considers older couples in established marriages only (e.g., Smith et al., 2009; Story et al., 2007). By including couples who vary in age, but are in relationships of similar length (i.e., the dating subsample), the effect of age can be distinguished from relationship longevity. Finally, the current work leverages dyadic data to examine both actor and partner effects of negative emotions on closeness and conflict resolution.

## Method

### Participants

As part of a broader study of newly-formed and long-standing relationships across the lifespan, couples living in the general Austin, Texas (USA) area who were either (a) in dating relationships of 3 years or less or (b) in marriages of at least 10 years were recruited to participate through advertisements placed in the community (e.g., farmers' markets, retirement/senior living centers) and on social networking websites (e.g., Nextdoor neighborhood groups, Facebook). To ensure equivalent age representation across the two relationship types, all couples were required to be between the age of 30 and 90. As older daters tend to be in better health and are more socially connected compared to older unmarried, but non-daters, the broader project only included participants who reported being in average health (i.e., rated their health as the same or better than the health of most people their age; Charles & Carstensen, 2008) and who reported at least moderate levels (e.g., several times a year) of involvement in organized activities, volunteer activities, and/or time with friends and family (Brown & Shinohara, 2013). These eligibility requirements were implemented to limit potential confounds between health, social involvement, and age-related processes.

Based on power analyses for examining age differences in relationship processes, coupled with funding constraints, we aimed to recruit approximately 300 couples for the broader study. Initially, 313 different-sex couples enrolled in the study; however, 18 couples withdrew before completing the background questionnaire and 13 couples withdrew after at least one member completed the background questionnaire (i.e., before they attended the lab session). An additional 2 couples who completed the lab session were excluded from analyses for speaking too quietly to be coded or for not completing post-discussion ratings of conflict resolution and closeness. Thus, this study used data provided by the remaining 280 couples who participated in the observed conflict interaction task. Two of the 280 couples had incomplete data (i.e., missing coder ratings of sadness) and were excluded from relevant analyses only. A post hoc sensitivity analysis using APIMPower (Ackerman & Kenny, 2016) found that the sample size of 280 couples had 95% power to detect  $\beta = .15675$  for actor and partner effects at an alpha level of .05, given  $r = .50$  correlation between actor and partner variables and  $r = .30$  correlation between errors. Thus, the sample size was adequately powered to detect interactions involving age, given effect sizes found in previous work (e.g., Charles & Carstensen, 2008; Sliwinski et al., 2020).

The final sample included 200 married couples (71.4%) and 80 couples (28.6%) in dating relationships. Of the married couples, male partners were on average 52.3 years old ( $SD = 13.1$ ; Median = 51.5; Range = 31 – 84), and female partners were on average 50.7 years old ( $SD = 12.41$ ; Median = 49.0; Range = 30 – 76). Turning to the dating couples, male partners were on average 45.3 years old ( $SD = 13.26$ ; Median = 41.5; Range = 30 – 88), and female partners were on average 44.3 years old ( $SD = 12.3$ ; Median = 40.5; Range

**Table 1. Relationship Status and Satisfaction by Age Group**

	Relationship status		Relationship satisfaction		
	Married N (%)	Dating N (%)	M (SD)	Median	Range
Younger (30 – 45)	160 (40.0%)	97 (60.6%)	41.87 (7.68)	43	2 – 51
Middle aged (46 – 59)	98 (24.5%)	39 (24.4%)	42.13 (7.88)	44	8 – 51
Older (60 – 88)	142 (35.5%)	24 (15.0%)	44.04 (6.31)	46.5	19 – 51

Note. Ns reflect the number of individual participants (total N = 560). Percentages reflect the percent within each of the married (N = 400 individuals) or dating (N = 160 individuals) subsamples. Relationship satisfaction was assessed using 10 items from the Couples' Satisfaction Index (the 16-item version without the six semantic-differential items, possible range = 0 – 51; Funk & Rogge, 2007). Relationship satisfaction data were missing for 4 (1.4%) couples in the sample.

= 30 – 85). [Table 1](#) provides further information regarding the proportion of married and dating participants who fell within a younger, middle-aged, and older age category. Among married couples, age was positively correlated with relationship duration ( $r = .88, p < .001$  for men;  $r = .90, p < .001$  for women); however, age was not significantly correlated with relationship duration among dating couples ( $r = .15, p = .191$  for men;  $r = .13, p = .251$  for women).

Overall, participants were relatively satisfied with their relationship (see [Table 1](#)). In terms of demographics, 77.7% of participants identified as White, 12.9% as Hispanic/Latinx, 3.9% as African American, 2.1% as Asian American, and 2.7% as other. Data were missing for 4 (0.7%) participants. In terms of the highest educational degree received, 15.2% reported having a high school diploma or GED, 11.8% reported an Associate's/vocational degree, 39.1% reported a Bachelor's degree, 25.7% reported a Master's degree and 7.9% reported a PhD, MD, or DDS. Data were missing for 2 (0.4%) participants. Regarding employment, 55.9% indicated they were employed full time, 10.4% were employed part-time, 17.9% were retired, and 15.8% indicated another category (e.g., unemployed, disabled and unable to work, or homemaker). The median household income reported was between \$80,000 and \$90,000 USD. In general, the sample was less ethnically diverse and more highly educated than the population from which it was drawn.

## Procedure

### Overview

After providing informed consent, each couple member was sent a unique link to complete an online background questionnaire prior to attending a laboratory session, where couples completed several additional questionnaires and engaged in a series of videotaped discussions, including the conflict interaction task. For this task, each couple chose a topic that was a source of tension or disagreement in the relationship. Couples were asked to discuss that topic for 8 minutes, with the goal of working toward a resolution of the issue. After the lab session, couples were asked to complete a 21-day daily diary survey; however, this survey is not relevant to the current hypotheses. Couples were paid a total of \$150 for their participation in the study. Data collection occurred between Summer 2015 and Fall 2019. An overview of the study protocol (including task instructions)

and all study measures can be found on the OSF page for the project (<https://osf.io/d623c/>).

## Measures

### Observed Expressions of Emotion

Five trained research assistants coded the conflict discussions for global affective tone. Coders rated the degree of sadness/withdrawal (e.g., a marked decrease in energy, crying, expressing helplessness or hurt feelings; ICC = .52 for men, ICC = .50 for women) and anger (e.g., expressing irritation or frustration toward the partner, using a raised voice; ICC = .97 for men, ICC = .72 for women) exhibited by partners across the whole discussion. Humor, affection, and contempt were also coded but were not used in the present analyses. That is, analyses focused on negative emotions rather than positive emotions (e.g., humor and affection) as theories of aging and emotion make stronger predictions about responses to negative emotions than responses to positive emotions (Charles & Carstensen, 2010). Moreover, as coder ratings of contempt were not reliable (see Analytic Plan below), this negative emotion was not examined. For each emotion, each individual's degree of emotional expression during the conflict was coded using a 5-point scale (1 = *not at all*, 5 = *a lot*). For more detail on coding instructions, see the Coding Manual on the OSF page for this project (<https://osf.io/d623c/>).

### Post-Discussion Ratings

Following the conflict discussion, each partner responded to questions about their perception of the conversation. Responses to all items were made using a 7-point scale (1 = *not at all*, 7 = *extremely*).

**Closeness.** Participants responded to the single item: "How close to your partner did the conversation make you feel?"

**Conflict Resolution.** Participants' ratings of conflict resolution were computed by taking the average of their responses on two items (Cronbach's  $\alpha = .89$  for men,  $\alpha = .92$  for women): "How satisfied are you with how much the conversation helped you solve the problem?" and "How satisfied are you with how much was accomplished during the conversation?"

## Analytic Plan

Due to the nested structure of these data (i.e., persons nested within dyad), multilevel modeling analyses were conducted using Hierarchical Linear Modeling v. 7.03 (Raudenbush et al., 2013) and the *nlme* package (v. 3.1-153; Pinheiro et al., 2021) in R (v. 4.1). Interdependence within couples was accounted for using procedures for analyzing dyadic data (Kashy & Kenny, 2000). Specifically, separate effects for male and female partners were estimated simultaneously in all analyses using a dual-intercept approach. This approach allows for straightforward tests of gender differences in coefficients of interest (a 1-*df*  $\chi^2$  test).

Analyses were pre-registered (<https://osf.io/rqmvd>); however, we note two clarifications of the pre-registered plan. First, as pre-registered tests of gender differences found no significant differences between the coefficients for men and women, all results are presented pooled across gender. The significance test for such constrained coefficients (i.e., equal for men and women) is more powerful than tests for gender-specific coefficients (Barnett et al., 1993). Second, the pre-registration includes analyses for a third emotion (contempt). The analyses found that the observer ratings of contempt were not reliable for men (ICC = -.30 for men, ICC = .68 for women) and therefore the contempt analyses were dropped. We additionally note that the pre-registered hypotheses of age differences did not draw from theories which consider effects of distinct negative emotions; we build on the pre-registration by further contextualizing the roles of sadness and anger within the distinct emotions approach (Kunzmann et al., 2014).

Four pre-registered models were run to account for all combinations of emotion (i.e., sadness, anger) and relationship outcome (i.e., closeness, conflict resolution):

$$DV_{ij} = (W_{ij}) * (b_{0w_j} + b_{1w_j}OwnEmotion_{ij} + b_{2w_j}PartnerEmotion_{ij} + b_{3w_j}OwnAge_{ij} + b_{4w_j}PartnerAge_{ij} + b_{5w_j}OwnEmotion_{ij}XOwnAge_{ij} + b_{6w_j}PartnerEmotion_{ij}XOwnAge_{ij} + e_{ij}) + (M_{ij}) * (b_{0m_j} + b_{1m_j}OwnEmotion_{ij} + b_{2m_j}PartnerEmotion_{ij} + b_{3m_j}OwnAge_{ij} + b_{4m_j}PartnerAge_{ij} + b_{5m_j}OwnEmotion_{ij}XOwnAge_{ij} + b_{6m_j}PartnerEmotion_{ij}XOwnAge_{ij} + e_{ij})$$

The dependent variable  $DV_{ij}$  represents either closeness or conflict resolution for individual  $i$  (when  $i = 1$  the outcome is for women (W) and when  $i = 2$  the outcome is for men (M)) in couple  $j$ . When the outcome is for a woman,  $W_{ij} = 1$  and  $M_{ij} = 0$ , and the first part of the model is selected, and all of the  $b$  coefficients have the subscript  $w$ ; when the outcome is for a man,  $W_{ij} = 0$  and  $M_{ij} = 1$ , and the second part of the model is selected, all of the  $b$  coefficients have the subscript  $m$ .

In these models, individual's relationship outcome (i.e., perceived closeness or conflict resolution) is estimated as a function of their own emotional expression (i.e., sadness or anger), their own age, their partner's emotional expression and their partner's age, all of which were grand mean centered. However, the main parameters of interest are the interactions between individuals' own emotion and their own age, and their partner's emotion and their own age. These parameters capture whether individuals' age moderates the effects of individuals' own (i.e., actor effect) and

their partners' (i.e., partner effect) emotional expression on individuals' relationship outcomes. As pre-registered, the models were first run without including any covariates and then supplemented with a second run which adjusted for the main effect of relationship type (i.e., dating or married).

## Results

### Preliminary Analyses: Observed Emotional Expression in Relationship Conflicts

As seen in [Table 2](#), coders observed low negative emotional expression during the conflict discussion on average; however, observations of sadness and anger expression spanned the full range of the scale (1-5) for both men and women (see [Table 3](#) for correlations between study variables). Additionally, a series of multilevel models accounting for dependency in the data revealed no significant age-related differences in observed behavioral expressions of sadness or anger (see Supplement). The lack of significant age differences in observed behavior is consistent with some previous empirical findings regarding observed behavior during romantic conflict discussions (Smith et al., 2009; Story et al., 2007; but see Verstaen et al., 2020).

### Age Did Not Significantly Moderate Effects of Sadness on Closeness or Conflict Resolution

Neither partner nor own sadness expressions significantly related to individuals' perceptions of closeness or conflict resolution, and age did not play a significant moderating role. That is, partner expressions of sadness did not significantly relate to individuals' perceptions of closeness ( $b = -.029, p = .761$ ) or conflict resolution ( $b = -.229, p = .052$ ). Age did not significantly interact with partner expressions of sadness to predict perceptions of closeness ( $b = .011, p = .172$ ) or conflict resolution ( $b = .003, p = .746$ ). Actor effects were similar to partner effects. Individuals' own expressions of sadness also were not significantly related to their perceptions of closeness ( $b = -.019, p = .852$ ) or conflict resolution ( $b = .043, p = .699$ ). Again, age did not significantly interact with own expressions of sadness to predict perceptions of closeness ( $b = .010, p = .116$ ) or conflict resolution ( $b = -.004, p = .654$ ) (see [Table 4](#) for all results).

### Age Did Not Significantly Moderate Effects of Anger on Closeness or Conflict Resolution

Both partner and own anger significantly related to lower perceptions of closeness and conflict resolution; however, age did not significantly moderate the effects of anger expression on closeness or conflict resolution. That is, partner expressions of anger significantly related to reduced perceptions of closeness ( $b = -.289, p = .004$ ) and conflict resolution ( $b = -.258, p = .012$ ). However, age did not significantly interact with partner expressions of anger to predict perceptions of closeness ( $b = -.013, p = .069$ ) or conflict resolution ( $b = .001, p = .926$ ). Actor effects were similar to partner effects. Own expressions of anger significantly related to reduced perceptions of closeness ( $b = -.327, p = .008$ ) and conflict resolution ( $b = -.344, p < .001$ ). How-

**Table 2. Descriptive Statistics for Study Variables**

	M	SD	Possible Range	Actual Range
<b>Men</b>				
Age	50.3	13.5	N/A	30-88
Observed Sadness	1.17	.53	1-5	1-5
Observed Anger	1.18	.62	1-5	1-5
Closeness	5.62	1.13	1-7	1-7
Conflict Resolution	5.22	1.29	1-7	1-7
<b>Women</b>				
Age	48.9	12.7	N/A	30-85
Observed Sadness	1.24	.68	1-5	1-5
Observed Anger	1.28	.74	1-5	1-5
Closeness	5.61	1.27	1-7	1-7
Conflict Resolution	5.31	1.42	1-7	1-7

**Table 3. Within-Person and Between-Partner Correlations**

	1.	2.	3.	4.	5.
1. Age	<b>.96*</b>	.07	-.04	.11	.05
2. Observed Sadness	.00	<b>.46*</b>	-.06	-.02	-.05
3. Observed Anger	-.03	-.02	<b>.65*</b>	-.23*	-.25*
4. Closeness	.13*	-.04	-.35*	<b>.35*</b>	.43*
5. Conflict Resolution	-.03	-.02	-.27*	.55*	<b>.43*</b>

Note. Men's correlations are presented above the diagonal and women's correlations are presented below the diagonal. Bolded correlations on the diagonal are the between-partner correlations. Missing data were removed pairwise (range of observations: 278 – 280).

\* Asterisks indicate  $p < .05$ .

ever, age did not significantly interact with own expressions of anger to predict perceptions of closeness ( $b = -.005$ ,  $p = .640$ ) or conflict resolution ( $b = .000$ ,  $p = .954$ ) (see [Table 5](#) for all results).

### No Significant Effects of Differences in Relationship Longevity

Inclusion of relationship status (dating or married) as a covariate in the above models did not significantly alter any of the findings. Additionally, relationship status did not significantly interact with sadness and anger expression to predict perceptions of closeness or conflict resolution. Taken together, these findings suggest that in a sample of both newly dating and long-term married couples across the lifespan, neither age nor differences in relationship length played a significant role in partners' reactions to negative emotional expressions during conflict. For more description on these and other pre-registered exploratory analyses, see Supplement.

### Discussion

Does older age buffer or exacerbate the impact of the expression of distinct negative emotions such as sadness and anger which arise during a romantic conflict? Prominent theories of aging suggest that older adults are better

equipped to avoid and manage negative emotion in their social relationships but are more vulnerable to the harmful impacts of uncontrollable negative emotion (Carstensen et al., 1999; Charles, 2010). However, no previous work has tested age differences in how romantic partners respond to expressions of specific negative emotions. To address this gap in the extant literature, the current study tested whether age moderates the effects of sadness and anger expressions during a relationship conflict on perceptions of closeness and conflict resolution within a large, age diverse sample of newly dating and long-term married couples.

The current work replicates previous work which finds that anger expression negatively impacts perceptions of closeness and conflict resolution immediately following problem discussions in younger couples (Lemay et al., 2012; Overall et al., 2009, 2013) and suggests that this finding may extend to older couples. That is, the present work found that own anger and partner anger were significantly associated with lower feelings of closeness and conflict resolution. However, no significant age differences in responses to anger expressions were detected. The effects of sadness and hurt feelings on perceptions of closeness and conflict resolution found in younger couples (Lemay et al., 2012; Overall et al., 2013; Sanford, 2007) did not significantly replicate in a broader age range of couples. That is, the present study did not find a significant effect

**Table 4. Results for Sadness Models (Pooled Across Gender)**

Effect	Closeness					Conflict Resolution				
	b	SE	t	p	95% CI [LL, UL]	b	SE	t	p	95% CI [LL, UL]
Intercept	5.612	.06	97.76	<.001	[5.49, 5.73]	5.250	.07	77.26	<.001	[5.11, 5.39]
Own age	.011	.01	.95	.343	[-.01, .03]	-.003	.01	-.27	.785	[-.02, .02]
Partner age	-.000	.01	-.02	.985	[-.02, .02]	.006	.01	.51	.609	[-.01, .03]
Own sadness	-.019	.10	-.19	.852	[-.22, .18]	.043	.11	.39	.699	[-.18, .26]
Partner sadness	-.029	.09	-.30	.761	[-.21, .15]	-.229	.12	-1.95	.052	[-.47, .01]
Own sadness x Own age	.010	.01	1.58	.116	[-.01, .03]	-.004	.01	-.45	.654	[-.02, .02]
Partner sadness x Own age	.011	.01	1.37	.172	[-.01, .03]	.003	.01	.32	.746	[-.02, .02]

Note. Degrees of freedom were 272 for both the closeness and conflict resolution models. SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit.

**Table 5. Results for Anger Models (Pooled Across Gender)**

Effect	Closeness					Conflict Resolution				
	b	SE	t	p	95% CI [LL, UL]	b	SE	t	p	95% CI [LL, UL]
Intercept	5.607	.05	104.37	<.001	[5.51, 5.71]	5.245	.07	80.52	<.001	[5.11, 5.39]
Own age	.008	.01	.73	.466	[-.01, .03]	-.004	.01	-.35	.728	[-.02, .02]
Partner age	.001	.01	.08	.940	[-.02, .02]	.006	.01	.50	.616	[-.01, .03]
Own anger	-.327	.12	-2.68	.008	[-.57, -.09]	-.344	.10	-3.47	<.001	[-.54, -.14]
Partner anger	-.289	.10	-2.92	.004	[-.49, -.09]	-.258	.10	-2.54	.012	[-.46, -.06]
Own anger x Own age	-.005	.01	-.47	.640	[-.02, .02]	.000	.01	.06	.954	[-.02, .02]
Partner anger x Own age	-.013	.01	-1.82	.069	[-.03, .01]	.001	.01	.09	.926	[-.02, .02]

Note. Degrees of freedom were 272 for both the closeness and conflict resolution models. SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit.

of either own or partner sadness on closeness or conflict resolution. Moreover, no significant age differences in responses to sadness expressions emerged. Taken together, the current findings are consistent with frameworks which posit that different negative emotions serve distinct functions (e.g., Kunzmann et al., 2014; Lemay et al., 2012) and highlight the importance of considering the distinct effects of specific negative emotions in relationship conflicts. In particular, expressions of anger may be damaging for partners' perceptions of closeness and short-term perceptions of conflict resolution in relationships at multiple stages of the lifespan.

Nevertheless, the present study did not find significant age differences in the effects of emotional expression on relationship perceptions. It may be fruitful for future research to consider when the benefits of aging are most likely to emerge. For example, two bodies of relevant previous literature have also not consistently found significant age differences, first, in subjective responses to highly negative, unavoidable stressors, and second, in romantic relationship processes.

First, as previously mentioned, the strength and vulnerability integration model suggests that age differences may not emerge in subjective responses to uncontrollable negativity (Charles, 2010; Charles et al., 2009). Our study design did require couples to engage in a conflict discussion they may have avoided at home, which may have been perceived as distressing (see Birditt, 2014). If couples did perceive the conflict as an uncontrollable stressor, the strength and vulnerability integration model could explain the null findings of age differences.<sup>1</sup> That said, it is unclear whether negativity experienced in the conflict discussions was perceived by participants as uncontrollable negativity, which is often defined as situations which elicit sustained and high levels of arousal (e.g., chronic stressors, threats to belonging, and stressor overloads: Charles, 2010; Charles & Luong, 2013). Indeed, couples who participated in the present study were relatively healthy and satisfied with their relationship on average, and tended to express low levels of sadness and anger on average during the discussions. Therefore, it is possible that the study design did not elicit enough interpersonal negativity to observe theorized age differences in responses to negativity, let alone afford the high levels of sustained arousal necessary to test hypotheses about responses to uncontrollable negativity. Moreover, rather than relying on partner's self-reports of their conflict responses, future research may wish to consider using physiological measures within a sample of more physically vulnerable older adults, as older adults are posited to suffer more adverse physiological consequences than younger adults in response to uncontrollable stressors due to the physical vulnerabilities associated with older age (Charles, 2010; Charles & Luong, 2013).

Second, a small but growing body of evidence comparing romantic and non-romantic relationships has raised the

possibility that the effects of age on both the occurrence of and responses to negative interactions in social relationships may vary by relationship domain. For example, older adults report declines in the occurrence of negative interactions with non-romantic partners (e.g., friends, adult children) but not with romantic partners (Akiyama et al., 2003; Birditt et al., 2020; Walen & Lachman, 2000). Moreover, the present study and some prior observational work (Smith et al., 2009; Story et al., 2007) also have not found significant age differences in the occurrence of negative behaviors during romantic partners' conflict discussions. Similarly, recent post hoc results in a diary study by Birditt and colleagues found that, compared to younger adults, older adults reported significantly greater positive affect in response to negative interactions in their non-romantic close relationships (e.g., parent-child relationship) but not in their spousal relationships (Birditt et al., 2020). Taken together, the current and published null findings raise the possibility that future research which more systematically considers whether age effects differ in romantic versus non-romantic relationships may improve our understanding of when age impacts (or does not impact) responses to negative emotion in relationships.

### Strengths and Limitations

The present study is enhanced by a number of methodological strengths. Foremost among these was the use of a sample which was uniquely positioned to disentangle age from relationship longevity. That is, the present study included a subsample of couples in newly-formed dating relationships, which allows for the examination of age effects among older and younger couples in relationships of similar length. Thus, the sample creates less of a confound between age and relationship longevity compared to prior studies of long-term married couples. Second, a reliance on independent coder ratings of emotional expression during couples' observed discussions provides more objective assessments of behavior which circumvent the types of self-report biases that may cloud daily diary approaches. Third, the present study examined the distinct impacts of sadness and anger expressions, which extends previous work on relationships that often obscures differences across specific negative emotions by considering negative emotion as a single category.

Despite these strengths, there are limitations of the present work as well. For example, although participants varied in the extent to which they exhibited sadness and anger (i.e., observations of sadness and anger expression spanned the full range of the scale), average levels of emotional expression were relatively low. This finding may reflect display rules against expressions of negative emotion in general and specifically in romantic relationships (Aune et al., 1996; Ekman, 1993). Additionally, coder ratings for expressions of sadness/withdrawal were only moderately reliable

<sup>1</sup> This possibility became clear during the review process and thus is not included in the pre-registered hypotheses.



(ICC = .52 for men, ICC = .50 for women). Consequently, additional research should further explore potential age differences in the effects of sadness specifically. The current study also used brief measures of closeness and conflict resolution (1-item and 2-item measures) similar to other work in this area (e.g., Kim et al., 2015; Overall et al., 2013); future research may wish to include more extensive measures of these constructs. Finally, the sample was comprised of mostly satisfied couples who were White, well-educated, relatively healthy, and socially involved, and thus the results of the current work may not be generalizable to more diverse populations. Therefore, it is necessary to explore whether similar findings emerge in less homogenous samples.

### Conclusion

The present work builds on previous research by examining whether age influences the impact of sadness and anger expressions on perceptions of closeness and conflict resolution. While the study did not find support for a significant role of age, the current findings highlight the importance of considering specific negative emotions separately. That is, anger expressions were found to be related to lower closeness and conflict resolution, while sadness expressions were not found to robustly relate to relationship perceptions. The current research also highlights the need to include both significant and null findings in the published literature for the most complete understanding of the impact of age on emotional processing. Ultimately, the current work challenges future research to investigate conditions which may provide important nuance to our understanding of how relationships evolve as couples grow older.

.....

### Contributions

SM: Formal Analysis, Visualization, Writing-Original Draft, Writing-Review & Editing

LAN: Conceptualization, Methodology, Visualization, Writing-Review & Editing, Supervision, Funding Acquisition

JSB: Conceptualization, Methodology, Visualization, Writing-Review & Editing, Supervision, Funding Acquisition

### Funding Information

The data collected for this project was supported by a grant from the National Science Foundation (BCS-1451492). Any opinion, findings, or conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

### Competing Interests

The authors have no potential conflicts of interest.

### Data Accessibility Statement

The pre-registered data analysis plan and analysis code are publicly accessible (<https://osf.io/d623c/>). Due to concerns about internal confidentiality with dyadic data (i.e., a participant could identify their partner's confidential responses from their own data), the data is not made publicly accessible. However, data is available to all academic researchers upon request to the corresponding author ([Ineff@austin.utexas.edu](mailto:Ineff@austin.utexas.edu)).

Submitted: February 07, 2023 PST, Accepted: January 24, 2024 PST



This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CCBY-4.0). View this license's legal deed at <http://creativecommons.org/licenses/by/4.0> and legal code at <http://creativecommons.org/licenses/by/4.0/legalcode> for more information.

## References

- Ackerman, R. A., & Kenny, D. A. (2016, December). *APIMPower: An interactive tool for Actor-Partner Interdependence Model power analysis* [Computer software]. <https://robert-a-ackerman.shinyapps.io/apimpower/>
- Akiyama, H., Antonucci, T., Takahashi, K., & Langfahl, E. S. (2003). Negative interactions in close relationships across the life span. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *58*(2), 70–79. <https://doi.org/10.1093/geronb/58.2.p70>
- Aune, K. S., Buller, D. B., & Aune, R. K. (1996). Display rule development in romantic relationships: Emotion management and perceived appropriateness of emotions across relationship stages. *Human Communication Research*, *23*(1), 115–145. <https://doi.org/10.1111/j.1468-2958.1996.tb00389.x>
- Baker, L. R., McNulty, J. K., & Overall, N. C. (2014). When negative emotions benefit relationships. In W. G. Parrott (Ed.), *The Positive Side of Negative Emotions* (pp. 101–125). Guilford.
- Barnett, R. C., Marshall, N. L., Raudenbush, S. W., & Brennan, R. T. (1993). Gender and the relationship between job experiences and psychological distress: A study of dual-earner couples. *Journal of Personality and Social Psychology*, *64*(5), 794–806. <https://doi.org/10.1037/0022-3514.64.5.794>
- Birditt, K. S. (2014). Age differences in emotional reactions to daily negative social encounters. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *69*(4), 557–566. <https://doi.org/10.1093/geronb/gbt045>
- Birditt, K. S., Fingerman, K. L., & Almeida, D. M. (2005). Age differences in exposure and reactions to interpersonal tensions: a daily diary study. *Psychology and Aging*, *20*(2), 330–340. <https://doi.org/10.1037/0882-7974.20.2.330>
- Birditt, K. S., Sherman, C. W., Polenick, C. A., Becker, L., Webster, N. J., Ajrouch, K. J., & Antonucci, T. C. (2020). So close and yet so irritating: Negative relations and implications for well-being by age and closeness. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *75*(2), 327–337. <https://doi.org/10.1093/geronb/gby038>
- Blanchard-Fields, F., & Coats, A. H. (2008). The experience of anger and sadness in everyday problems impacts age differences in emotion regulation. *Developmental Psychology*, *44*(6), 1547–1556. <https://doi.org/10.1037/a0013915>
- Brown, S. L., & Shinohara, S. K. (2013). Dating relationships in older adulthood: A national portrait. *Journal of Marriage and Family*, *75*(5), 1194–1202. <https://doi.org/10.1111/jomf.12065>
- Carstensen, L. L., Isaacowitz, D. M., & Charles, S. T. (1999). Taking time seriously: A theory of socioemotional selectivity. *American Psychologist*, *54*(3), 165–181. <https://doi.org/10.1037/0003-066x.54.3.165>
- Charles, S. T. (2010). Strength and vulnerability integration: A model of emotional well-being across adulthood. *Psychological Bulletin*, *136*(6), 1068–1091. <https://doi.org/10.1037/a0021232>
- Charles, S. T., & Carstensen, L. L. (2008). Unpleasant situations elicit different emotional responses in younger and older adults. *Psychology and Aging*, *23*(3), 495–504. <https://doi.org/10.1037/a0013284>
- Charles, S. T., & Carstensen, L. L. (2010). Social and emotional aging. *Annual Review of Psychology*, *61*(1), 383–409. <https://doi.org/10.1146/annurev.psych.093008.100448>
- Charles, S. T., & Luong, G. (2013). Emotional experience across adulthood: The theoretical model of strength and vulnerability integration. *Current Directions in Psychological Science*, *22*(6), 443–448. <https://doi.org/10.1177/0963721413497013>
- Charles, S. T., Piazza, J. R., Luong, G., & Almeida, D. M. (2009). Now you see it, now you don't: Age differences in affective reactivity to social tensions. *Psychology and Aging*, *24*(3), 645–653. <https://doi.org/10.1037/a0016673>
- Ekman, P. (1993). Facial expression and emotion. *American Psychologist*, *48*(4), 384–392. <https://doi.org/10.1037/0003-066x.48.4.384>
- Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*(4), 572–583. <https://doi.org/10.1037/0893-3200.21.4.572>
- Haase, C. M., Seider, B. H., Shiota, M. N., & Levenson, R. W. (2012). Anger and sadness in response to an emotionally neutral film: Evidence for age-specific associations with well-being. *Psychology and Aging*, *27*(2), 305–317. <https://doi.org/10.1037/a0024959>
- Kashdan, T. B., Volkmann, J. R., Breen, W. E., & Han, S. (2007). Social anxiety and romantic relationships: The costs and benefits of negative emotion expression are context-dependent. *Journal of Anxiety Disorders*, *21*(4), 475–492. <https://doi.org/10.1016/j.janxdis.2006.08.007>
- Kashy, D. A., & Kenny, D. A. (2000). The analysis of data from dyads and groups. In H. T. Reis & C. M. Judd (Eds.), *Handbook of Research Methods in Social and Personality Psychology* (pp. 451–477).
- Kim, J. S., Weisberg, Y. J., Simpson, J. A., Oriña, M. M., Farrell, A. K., & Johnson, W. F. (2015). Ruining it for both of us: The disruptive role of low-trust partners on conflict resolution in romantic relationships. *Social Cognition*, *33*(5), 520–542. <https://doi.org/10.1521/soco.2015.33.5.520>
- Kunzmann, U., Kappes, C., & Wrosch, C. (2014). Emotional aging: A discrete emotions perspective. *Frontiers in Psychology*, *5*, 380. <https://doi.org/10.3389/fpsyg.2014.00380>
- Kunzmann, U., & Thomas, S. (2014). Multidirectional age differences in anger and sadness. *Psychology and Aging*, *29*(1), 16–27. <https://doi.org/10.1037/a0035751>

- Lemay, E. P., Overall, N. C., & Clark, M. S. (2012). Experiences and interpersonal consequences of hurt feelings and anger. *Journal of Personality and Social Psychology, 103*(6), 982–1006. <https://doi.org/10.1037/a0030064>
- Levenson, R. W., Carstensen, L. L., & Gottman, J. M. (1994). The influence of age and gender on affect, physiology, and their interrelations: A study of long-term marriages. *Journal of Personality and Social Psychology, 67*(1), 56–68. <https://doi.org/10.1037/0022-3514.67.1.56>
- Lwi, S. J., Haase, C. M., Shiota, M. N., Newton, S. L., & Levenson, R. W. (2019). Responding to the emotions of others: Age differences in facial expressions and age-specific associations with relational connectedness. *Emotion, 19*(8), 1437–1449. <https://doi.org/10.1037/emo0000534>
- Overall, N. C., Clark, M. S., Fletcher, G. J. O., Peters, B. J., & Chang, V. T. (2020). Does expressing emotions enhance perceptual accuracy of negative emotions during relationship interactions? *Emotion, 20*(3), 353–367. <https://doi.org/10.1037/emo0000653>
- Overall, N. C., Fletcher, G. J. O., Simpson, J. A., & Sibley, C. G. (2009). Regulating partners in intimate relationships: The costs and benefits of different communication strategies. *Journal of Personality and Social Psychology, 96*(3), 620–639. <https://doi.org/10.1037/a0012961>
- Overall, N. C., & McNulty, J. K. (2017). What type of communication during conflict is beneficial for intimate relationships? *Current Opinion in Psychology, 13*, 1–5. <https://doi.org/10.1016/j.copsyc.2016.03.002>
- Overall, N. C., Simpson, J. A., & Struthers, H. (2013). Buffering attachment-related avoidance: Softening emotional and behavioral defenses during conflict discussions. *Journal of Personality and Social Psychology, 104*(5), 854–871. <https://doi.org/10.1037/a0031798>
- Pinheiro, J., Bates, D., DebRoy, S., Sarkar, D., & R Core Team. (2021). *nlme: Linear and Nonlinear Mixed Effects Models*. R package version 3.1-153. <https://CRAN.R-project.org/package=nlme>
- Raudenbush, S. W., Bryk, A. S., & Congdon, R. (2013). *HLM 7.01 for Windows*. Scientific Software International, Inc.
- Rauer, A. J., & Volling, B. L. (2005). The role of husbands' and wives' emotional expressivity in the marital relationship. *Sex Roles, 52*(9–10), 577–587. <https://doi.org/10.1007/s11199-005-3726-6>
- Rohr, M. K., Nestler, S., & Kunzmann, U. (2019). A trouble shared is a trouble halved: Age differences in emotional experience and expression during couples' conversations. *Psychology and Aging, 34*(6), 848–861. <https://doi.org/10.1037/pag0000386>
- Sanford, K. (2007). Hard and soft emotion during conflict: Investigating married couples and other relationships. *Personal Relationships, 14*(1), 65–90. <https://doi.org/10.1111/j.1475-6811.2006.00142.x>
- Seider, B. H., Hirschberger, G., Nelson, K. L., & Levenson, R. W. (2009). We can work it out: Age differences in relational pronouns, physiology, and behavior in marital conflict. *Psychology and Aging, 24*(3), 604–613. <https://doi.org/10.1037/a0016950>
- Seider, B. H., Shiota, M. N., Whalen, P., & Levenson, R. W. (2011). Greater sadness reactivity in late life. *Social Cognitive and Affective Neuroscience, 6*(2), 186–194. <https://doi.org/10.1093/scan/nsq069>
- Sliwinski, M. J., Freed, S., Scott, S. B., Pasquini, G., & Smyth, J. M. (2020). Does chronic stress moderate age differences in emotional well-being? Testing predictions of strength and vulnerability integration. *The Journals of Gerontology: Series B, 76*(6), 1104–1113. <https://doi.org/10.1093/geronb/gbaa174>
- Smith, T. W., Berg, C. A., Florsheim, P., Uchino, B. N., Pearce, G., Hawkins, M., Henry, N. J. M., Beveridge, R. M., Skinner, M. A., & Olsen-Cerny, C. (2009). Conflict and collaboration in middle-aged and older couples: I. Age differences in agency and communion during marital interaction. *Psychology and Aging, 24*(2), 259–273. <https://doi.org/10.1037/a0015609>
- Story, T. N., Berg, C. A., Smith, T. W., Beveridge, R., Henry, N. J. M., & Pearce, G. (2007). Age, marital satisfaction, and optimism as predictors of positive sentiment override in middle-aged and older married couples. *Psychology and Aging, 22*(4), 719–727. <https://doi.org/10.1037/0882-7974.22.4.719>
- van Kleef, G. A., & Côté, S. (2022). The social effects of emotions. *Annual Review of Psychology, 73*(1), 629–658. <https://doi.org/10.1146/annurev-psych-020821-010855>
- Verstaen, A., Haase, C. M., Lwi, S. J., & Levenson, R. W. (2020). Age-related changes in emotional behavior: Evidence from a 13-year longitudinal study of long-term married couples. *Emotion, 20*(2), 149–163. <https://doi.org/10.1037/emo0000551>
- Walen, H. R., & Lachman, M. E. (2000). Social support and strain from partner, family, and friends: Costs and benefits for men and women in adulthood. *Journal of Social and Personal Relationships, 17*(1), 5–30. <https://doi.org/10.1177/0265407500171001>

## Supplementary Materials

### Supplemental Material

Download: [https://collabra.scholasticahq.com/article/92976-does-age-buffer-or-exacerbate-the-impact-of-sadness-and-anger-on-romantic-relationships/attachment/194568.docx?auth\\_token=CYV6kPh6H6UcCao4JLoja](https://collabra.scholasticahq.com/article/92976-does-age-buffer-or-exacerbate-the-impact-of-sadness-and-anger-on-romantic-relationships/attachment/194568.docx?auth_token=CYV6kPh6H6UcCao4JLoja)

---

### Peer Review History

Download: [https://collabra.scholasticahq.com/article/92976-does-age-buffer-or-exacerbate-the-impact-of-sadness-and-anger-on-romantic-relationships/attachment/194569.docx?auth\\_token=CYV6kPh6H6UcCao4JLoja](https://collabra.scholasticahq.com/article/92976-does-age-buffer-or-exacerbate-the-impact-of-sadness-and-anger-on-romantic-relationships/attachment/194569.docx?auth_token=CYV6kPh6H6UcCao4JLoja)

---