What Happens When Romantic Couples Discuss Personal Loss? Relational, Emotional, and Physiological Impacts

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Abstract

Does talking about loss with a romantic partner have salutary personal and relationship effects? Prior evidence reveals the benefits of emotional disclosure in couple relationships, yet disclosure about loss has been overlooked in research on couple communication. Using a novel communication paradigm with young-adult heterosexual romantic partners (N = 114 couples), we investigated emotions, physiological arousal (skin conductance responses [SCR]), and relationship closeness when narrating a personal loss and listening to the partner's loss, and compared these loss discussions to discussions about desired relationship changes. Based on partners' self-reports, narrating loss elicited more vulnerable and, unexpectedly, more antagonistic emotions. Both narrating and listening to loss produced higher self-reported partner closeness, compared to discussing change. In support of the physiological benefits of disclosure, women's SCRs decreased over the discussion when they narrated their own loss. However, both women and men as listeners show a general trend of increasing SCRs over the discussion, suggesting the challenges of being a responsive partner. Moreover, in line with the putative protective effects of partners' biological interdependencies, partner closeness also was higher when both partners

showed synchronous decreasing SCR as women narrated their loss. Although limited to young couples in relatively short relationships, these findings reveal some potential benefits of talking about loss in the context of romantic relationships.

Keywords

Loss; couples; skin conductance responses; partner discussions; relationship closeness

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"This cracked the door open for us. We needed that." [male participant after loss discussion]

Loss is inevitable, yet talking about loss is exceedingly difficult and often avoided even within close relationships. Hesitancy to speak about personal loss may be due to perceived risks of feeling vulnerable, becoming emotionally distraught, or making someone else uncomfortable. Correspondingly, fears of being insufficiently consoling or inadvertently exacerbating distress may lead well-intended loved ones to avoid asking about a loss. But do discussions about loss actually provoke distress or, contrary to conventional wisdom, do they bring relief and bolster relationship ties? To test these alternatives, we assessed romantic couples' relational, emotional and physiological reactions when talking about important personal losses. Discussing loss entails taking a risk on both sides of the conversation with the loss narrator not knowing how their loss story will be received and the listener not knowing if they can adequately and meaningfully connect. Thus, discussing loss potentially evokes vulnerability, a key to intimacy identified by relationship researchers across theoretical persuasions (Christensen, 2010). This study introduces loss discussions as a novel communication paradigm. We contend that loss discussions have unique potential to be salutary to both the speaker and listener and test whether such discussions evoke "soft," vulnerable emotions, alter physiological arousal, and foster couple closeness.

Disclosure and partner responsiveness have long been recognized as key elements of couple intimacy (Laurenceau et al., 1998; Reis & Shaver, 1988; Slatcher & Schoebi, 2017). Yet most research assessing and improving communication in couples has been informed by research on conflict or change discussions (Woodin, 2011), where partners often find themselves in adversarial rather than compassionate positions. Alternatively, social support discussions have proven to be ways to elicit understanding, concern, and couple dynamics such as shared dyadic coping (Falconier et al., 2015). Social support discussions call for one partner to be supportive as the other presents a personally stressful situation (Cutona et al., 1997), desired change in oneself (Overall et al., 2010; Sullivan et al., 2010), personal worry or stress (Kuhn et al., 2018; Parkinson et al., 2016), or a situation when they felt insecure or badly (Khalifian & Barry, 2021). The listener's social support in these conversations is defined broadly, encompassing emotional, informational, and instrumental factors (Cutrona et al., 1997; Sullivan et al., 2010).

Loss discussions may be similar to social support discussions in that they putatively elicit emotional support such as caring, concern, and "being there" for the partner. Yet loss discussions also compel something unique: Because loss discussions represent circumstances that are beyond either partner's control and that cannot be undone or re-done, there is not a problem to be solved by either the narrator or listener. As such, informational

and instrumental responses likely play a lesser role. As set out here, the objective of these discussions was for loss narrators to talk about the meaning of their loss and its continued influence on them. Listeners were to understand what the narrator has endured—essentially bearing witness to the narrators' grief. In contrast to frequent messages of getting past or moving on from loss, these discussions provided an opportunity to delve into loss and not push away pain and heartbreak.

Couples and Loss

Although ongoing romantic relationships are the natural context for discussing loss, we have limited information about couples' communication about loss. Some research addresses what happens when spouses suffer the same loss. For example, with the most devastating of losses, a child's death, bereaved parents' efforts to protect one another by not talking about the loss were associated with increased grief over time (Stroebe et al., 2013). Serious health concerns present another type of couple loss, especially if the medical issue brings about restricted capabilities, or curtailed dreams and plans. Research shows how specific coping approaches by both partners and certain types of social support can either benefit or impede treatment compliance and recovery (e.g., Cutrona, 1996; Khan et al., 2013). Here, too, however, keeping partners at arms-length over shared losses due to illness is seemingly detrimental for the individuals and the couple, e.g., spouses' holding back worries about a prostate cancer diagnosis contributed to individual distress and lower relationship satisfaction (Manne et al., 2015).

In addition to jointly experienced couple losses, individual losses and even those occurring long before the couple met can still get woven into the tapestry of a relationship, e.g., the untimely death of a sibling during childhood may underscore the fragility of family life and affect a partner's later parenting. With many losses, there can be "a long arc" of grief where people carry "around stories of major loss, many of them unspoken" (Edelman, 2020). Confiding such personal experiences may be important for the person sharing the loss and also the listener and even can change the relationship context (Hooghe et al., 2011). As a first step in examining impacts of disclosing loss to a romantic partner, we adapted the widely-used, standardized, brief discussion paradigm in couples research to the topic of loss—where there is not a problem to be resolved. Comparing loss discussions to problem-focused discussions, we anticipate that loss discussions will elicit higher partner reports of vulnerable emotions and relationship closeness.

Loss Narrators and Listeners and Physiological Reactions

Identifying benefits versus costs of *talking about loss* is informed, in part, by studies indicating that individuals feel better physically and emotionally when writing or talking about traumatic experiences (Greenberg & Stone, 1992). Anecdotal evidence suggests that disclosing unspeakable events can bring emotional and physiological relief whereas unrevealed stories can adversely affect mental and physical health (Edelman, 2020). Confiding in others is said to be important to organizing and making meaning of the loss but requires an interested, caring listener who provides the time and space for such disclosures (Harvey et al., 1992). Beyond speaking about loss, bringing loss into dyadic contexts raises

questions about impacts of *hearing about loss*—not yet tested in close relationships. Multiple theories (e.g., neural mirroring, emotional contagion) posit that people not only understand others' internal states but actually experience similar feelings and bodily reactions (Hatfield et al., 1993; Sommerville & Decety, 2006).

Pennebaker's early work (1990) offers a window into narrators and listeners' physiological responses through electrodermal activity (EDA) signals, or small changes in electrical activity in the skin, which is innervated by the sympathetic nervous system (Dawson et al., 2007). EDA, which measures the end product of that innervation via sweat, comprises slower-acting, general changes in arousal captured by skin conductance level (SCL) and faster-changing, phasic components captured by skin conductance responses (SCRs). EDA is a complex phenomenon that reflects emotional arousal, interest, motivation, and attention (Boucsein, 2012). According to Pennebaker et al. (1987), disclosure, compared to holding in painful thoughts and feelings, is associated with lower SCL. Pennebaker et al. (1989; 1990) also compared the SCL of Holocaust survivors describing their experiences and undergraduates' SCL who later watched the videorecordings. Undergraduates' SCL was synchronized with the narrators—but in opposite directions. The more Holocaust survivors showed SCL drops, the greater viewers increased in SCL—even though narrators were unknown and not present.

These intriguing findings illustrate one type of synchrony between loss narrators and listeners but raise questions about what patterns emerge when the narrator and listener are a romantic couple, interacting face-to-face. Here, we investigate whether loss narrators and listeners show increasing or decreasing sympathetic activation through SCR. Then, given that romantic partners may be uniquely positioned to read each other's emotional states and often are in sync emotionally and physiologically (Timmons et al., 2015), we also explore synchrony in the direction of partners' SCR change when discussing loss. On the one hand, matching trajectories (both partners increasing or both decreasing) may be evidence of greater coordination between partners in their arousal (Butler & Randall, 2013; Sbarra & Hazan, 2008). Alternatively, because physiological interdependencies can take different forms, another version of being "in sync" is evidenced when partners' physiologies are coordinated but moving in opposite directions—also know as anti-phase coordination, as contrasted with in-phase coordination where they move in the same direction. Anti-phase coordination can be understood as the transmission or contagion of one partner's arousal to the other (Butler, 2011) and may be a plausible characterization of what transpires between partners during loss discussions. That is, the loss narrator's distress may lessen but the listener's arousal may increase when directly faced with the partner's pain or when imagining what the partner experienced when the loss occurred.

The Current Study

In this study, we introduce a new discussion paradigm—during which partners talk about significant personal losses—to test whether speaking about and listening to heartrending topics promotes relational closeness and benefits the individuals involved. In this initial investigation into the impact of loss discussions, young romantic couples discussed losses that occurred in the past and that still were a significant source of distress and sadness. Each

partner narrated their loss for 10 minutes and SCR was assessed continuously in both the narrator and listener to capture changes in sympathetic activation across each discussion. To systematize the novelty of the discussions across couples, we had each partner select a loss about which the partner knew little, if anything. Although loss may seem incongruous with this age group, approximately 50% of young adults report the death of a significant family member or friend within a 2-year window (Neimeyer et al., 2008). Loss can make young adults feel alone and set apart from peers, and it can exact a high toll by derailing age-typical transitions.

First, we assess whether loss discussions are novel and impactful. Aim 1 compares emotions, physiology, and relationship closeness when narrating a personal loss versus listening to the partner's loss and also contrasts those discussions to a conversation where partners specify changes they want in their relationship (herein called "change discussions"). We hypothesized that loss discussions—for speakers and listeners—would prompt higher emotional vulnerability and relationship closeness, lower antagonism, and lower overall SCRs than change discussions.

Aims 2 and 3 more precisely characterize and compare physiological trajectories over the loss discussions. Aim 2 investigates whether participants become more or less physiologically aroused during each discussion (own loss, partner loss, and change) and whether physiological trajectories differ by discussion type. Although conjuring up painful experiences could heighten arousal, prior literature regarding the benefits of disclosure motivated our hypothesis that SCRs would decline when narrating one's own loss. For listeners, however, we hypothesized that the challenge of fully grasping and meaningfully responding, i.e., an example of emotional "load sharing" in social baseline theory (Beckes & Coan, 2011), would manifest in increasing SCRs.

Whereas Aim 2 characterizes average SCR across people, Aim 3 investigates whether partners' congruence (being "in sync") in the direction of SCR trajectories has implications for partner closeness. Here we had two hypotheses. First, whereas prior research primarily focused on associations between the overall magnitude of physiological linkage and relationship quality (Timmons et al., 2015), we test *direction of linkage*. That is, though congruent decreasing SCRs may represent partners' capacities in helping one another downregulate arousal, congruent increasing SCRs could reflect escalating arousal. Thus, we hypothesized that mutual dampening rather than shared amplification of arousal elicits greater post-discussion relationship closeness. Second, with the anticipated change in overall level of SCR and with empathy presumably contributing to a coordinated physiological response between partners, we hypothesized that matching SCR trajectories, i.e., being in accord physiologically in either direction, would be associated with greater emotional closeness than incongruent trajectories.

Finally, though sex differences frequently emerge in couple communication research, the direction of effects is not consistent (Bloch et al., 2014). Gender role socialization suggests that women express vulnerable emotions more freely; however, whether men's experience disclosing loss is any less intense is unknown (Kring & Gordon, 1998) as are sex differences

when hearing about the partner's loss. Thus, in an exploratory manner, we examine sex differences as a moderator of emotional and physiological reactions to the loss discussions.

Method

Participants

This study included 114 heterosexual romantic couples (228 individuals) from a sample of 121 couples recruited for a comprehensive study on relationships in young adults. Four same-sex couples are not included here due to the focus on within-couple sex differences, and three couples did not have usable SCR data due to equipment malfunctions. Recruitment ended when we reached our sample goal of 120 couples based on funding considerations for the larger study. On average, participants were 22.55 years old ($SD = 2.44$). The sample was racially diverse: 11.4% Asian, 15.4% Black, 24.6% Latinx, 16.2% Multi-racial, 28.9% White non-Latinx, and 3.5% other. Most (73.3%) had full- or part-time employment; 54.4% were full- or part-time students. On average, couples had been together over 2 years ($M = 29.77$ months, $SD = 23.88$); 43.0% were living together; two were married. Most couples (75%) were recruited through online postings and flyers with relationship duration (at least 2 months) and age ($\geq$ 18 years and at least one < 26) as eligibility criteria. In addition, 29 individuals were re-recruited from an earlier study on family context and adolescent development (Margolin et al., 2010) having met eligibility criteria and having a dating partner interested in participating; those participants did not differ on age or length of relationship, but were less likely to identify as White, $x^2(5) = 11.104$, $p = .049$, and less likely to live with their partner, $x^2(1) = 21.031$, $p < .001$.

Procedures

Laboratory procedures relevant here included 15-minutes of relaxation (quietly watching a nature video) to establish a EDA baseline and three 10-minute couple discussions: one change discussion followed by separate female-narrated and male-narrated loss discussions, with the order of loss discussions counterbalanced. To identify topics for the change and loss discussions, we used surveys along with 5-minute priming interviews conducted individually with each partner. Pre-discussion appraisal questionnaires were used to measure negative anticipation immediately prior to each discussion once participants knew the discussion topics and instructions. Post-discussion questionnaires administered immediately following each discussion assessed overall appraisals of discussion impact as well as emotional and relational reactions.

Prior to the baseline relaxation procedure, experimenters applied a wireless BioNomadix transmitter and 4 mm electrodes to each participant's non-dominant hand to collect EDA data throughout the laboratory session. The entire session took approximately 4–5 hours for which each participant was compensated $100. All procedures were approved by the University of Southern California Institutional Review Board.

Prior to the change discussion, participants completed a 23-item questionnaire, designed for this study, representing possible areas of tension for young couples (e.g., time spent together; jealousy and trust; showing affection). Partners rated how upsetting each topic

was on a scale from 0 (*not at all*) to 4 (*a lot)* and also rated how much they had already discussed the topic (*not at all*; *a little*; *a lot*). Experimenters identified potential topics that were upsetting and not already discussed extensively. During the change discussion priming interview, an experimenter helped each participant clarify issues underlying top-rated items. After reconvening, the couple was given a list of 3–4 topics and was instructed to talk about any of the topics in whatever order they wished, provide as much detail as possible, and let each other know how they really felt.

Prior to the loss discussions, participants completed a newly-developed checklist of 11 possible losses, indicating whether they experienced each loss. If yes, they then rated how sad it (a) made them feel initially, and (b) continues to make them feel now. On average, participants indicated that they had experienced 4.10 (*SD* = 1.83) losses. Separate priming interviews with each partner were used to select the topic each partner would narrate. The procedures manual instructed experimenters to select a loss that had seriously affected each partner, still elicited strong feelings, had been discussed minimally (if at all) with the partner, and was unrelated to the relationship. During the priming interview, we encouraged the participant to expand on the significance of the loss and on what they wanted their partner to understand about it. For each loss selected, retrospective ratings of sadness were, on average, 3.94 (*SD* = 1.23) where 0 = *not at all* and 5 = *a lot*; current sadness averaged 2.66 (*SD* = 1.66). Before each loss discussion, the narrator was instructed to communicate to the partner why the event was meaningful and how it still affects their life. The listener was instructed to understand what the narrator was saying—to comment, ask questions, and create a conversation rather than one person's speech. Losses ranged in severity with some highly devastating, e.g., parent's death, cousin's murder. Most loss discussion topics fell into one of the following categories: death of a family member (28.1%); illness or disability (18.4%); death of a friend, teacher, or someone else close (15.4%); losing the opportunity or ability to pursue a personal goal (8.3%); and parents' divorce (7.9%).

Measurements

Pre-discussion appraisals.—The pre-discussion appraisal questionnaire, adapted from a cognitive appraisal measure of perceived task demands and perceived resources to cope (Mendes et al., 2007), included three negative appraisal items (dreading the discussion; doubting its usefulness; anticipating difficulty in saying what the participant wants to say) and three positive appraisal items (looking forward to discussion; anticipating good to come from it; anticipating doing a good job getting points across). Respondents rated each item on a 0 (*strongly disagree*) to 6 (s*trongly agree*) scale. Reverse scoring positive items and averaging all items, we created a negative anticipation score for each discussion (Cronbach's alpha = .80-.83 across discussions).

Post-discussion appraisals, emotions, and closeness to partner.—Immediately after each of the three discussions, participants completed our post-discussion questionnaire, designed for this study. Responses to all items were on a 5-point scale; depending upon the wording of the item, the anchors varied (i.e., 0 = *never, not at all,* or *none*; 4 = *very often* or *a lot*). The 7 appraisal questions assessed novelty (new information expressed; new information learned; similarity to other discussions), degree of openness and honesty,

amount of conflict with partner in the discussion, and anticipated change (for the better; for the worse). Participants also rated how much they experienced specific emotions during the discussion, with items on vulnerability (i.e., hopeless; sad) and antagonism (i.e., angry; irritated). Relationship closeness was assessed as the difference between two items: 'close to partner' minus 'distant from partner'.

EDA.—To assess phasic changes related to the discussions in electrical conductivity of the skin, we assessed SCRs, sampled at 62.5 Hz and recorded with AcqKnowledge software. To process EDA, we used Matlab (version R2013b) and followed the Chaspari et al. (2015) procedures for cleaning and extracting data. We first applied a low-pass filter to each file and then used a computer algorithm to detect movement artifacts (i.e., parts of the signal that assemble orthogonal pulses and do not follow the expected steep increase and smooth recovery). Skin conductance responses were set at a minimum amplitude of .02 μS (Dawson et al., 2007). EDA files also were visually inspected with identified movement artifacts manually removed. Mean SCRs were calculated for each 30-sec interval. When artifact removal led to missing data on more than 60% of the intervals in any discussion or in the relaxation baseline procedure, we treated that entire discussion or SCR baseline as missing to avoid analyzing data that may not be representative. This led to missing SCR data for 7.9% of the relaxation baseline data, 4.4% of change discussions, 3.5% of own loss, and 6.1% of partner loss discussions. Due to knocks on an observation window signaling the start and end of each discussion, we shaved 10-sec off the first and last interval to avoid artificially enduced SCRs and prorated those missing seconds of data.

SCR values, representing the number of responses within each 30-sec epoch, were used to create mean *SCR reactivity* scores (Aim 1), to model *SCR slope across time* (Aim 2), and to test *match in SCR slopes* by charactizing trajectories as increasing or decreasing (Aim 3).

Overview of Analyses

Data analyses were conducted with Mplus version 8.0. Missing data for all three aims were handled using the Full Information Maximum Likelihood method (Muthen & Muthen, 1998–2017), and all 228 participants were included in the analyses. The self-report data had negligible missing data, i.e., 0.01% of pre- and post-discussion appraisals and 0.01% of emotional and relationship reactions. For SCR data, our artifact removal procedures during data processing (across baseline and each discussion) resulted in missingness for 11.1% of reactivity scores in Aim 1 analyses, where computation required > 60% of usable data both during the discussion and during the baseline relaxation task. For Aim 2, a total of 4.7% of the three discussions was missing. Aim 3 required usable SCR data from both partners, which resulted in missing data for 7.9% of women's loss discussions and 13.2% of men's loss discussions.

To avoid convergency problems and to increase parsimony in our models, we set intercepts as random and other effects as fixed (Raudenbush & Bryk, 2002; Singer & Willett, 2003). Per Snijders and Bosker (1994), we report effect sizes as percent variance explained [R^2] (LaHuis et al., 2014). Length of the relationship and cohabitation were entered as covariates

in all analyses. We also tested order of loss discussion (female vs. male partner first) as a covariate, but that was not significant and therefore dropped in our final models.

For Aim 1, we conducted three-level random intercept regression models with the three discussions as repeated observations nested in participants and participants nested in couples. Due to the number of outcome variables tested in Aim 1, the significance level was set at $p < .01$. Two dummy variables were created to contrast the outcomes across the three discussions, using the change discussion as the reference: (1) Change = 0 and Own Loss = 1; (2) Change = 0 and Partner Loss = 1. To test the contrast between the two loss discussions and to calculate p-values and confidence intervals, a new parameter was estimated in these Mplus models by subtracting the coefficients of the two dummy codes. We examined sex by including interaction terms between the dummy variables for discussions and sex. For Aim 1, we calculated SCR *reactivity* by subtracting each participant's average SCR value during the relaxation baseline from that person's average SCR during each discussion, per Murray-Close et al. (2012). Mean SCR during relaxation was significantly lower ($M = 1.43$, $SD = 1.60$) than own loss discussion ($M = 3.05$, $SD = 1.42$, $b = 1.63$, 95% CI [1.40, 1.86], $z = 13.75$, $p < .001$), partners' loss ($M = 2.66$, SD 1.33, $b = 1.24$, 95% CI [1.03, 1.44], $z = 11.72$, $p < .001$), and change discussions ($M = 3.38$, $SD = 1.33$, $b = 1.97$, 95% CI [1.76, 2.18], $z = 18.62$, $p < .001$). For Aim 2, to test SCR trajectories, we estimated fixed within-person slopes of SCRs across 20 30-sec intervals for each discussion using a similar three-level random intercept regression model as Aim 1, adding time as a predictor and including discussion and sex as moderators. Each person's average baseline SCR was a covariate to account for inter-individual SCR variability. Our Aim 2 model assumed a linear relationship between time and SCRs. For Aim 3, we first determined direction of SCR trajectories by computing the correlation coefficient between time (i.e. 30-sec intervals) and SCRs for each participant separately. For match between partners, we then categorized couples into one of four groups: (1) Both narrator and listener show decreasing SCRs across the discussion; (2) Both show increasing SCRs; (3) Narrator decreases and listener increases; and (4) Narrator increases and listener decreases. Group comparisons were made using two-level random intercept regression models with observations for each partner nested within couples. Dummy variables were created to contrast partner closeness across the groups, with the group where both partners' SCRs decrease as the reference. To test the group contrasts and calculate corresponding p-values and confidence intervals, new parameters were estimated by subtracting the coefficients of the relevant dummy codes. Sex differences in aim 3 were tested as a moderator by comparing role (i.e., female narrator vs. male listener during women's loss discussion and male narrator vs. female listener during men's loss discussion). We reported how we determined our sample size, all data exclusions, all manipulations, and all measures in the study. This study was not preregistered. Anonymized datasets for aims 1, 2, and 3 can be obtained from the first author and requests for analytic code can obtained from the second author.

Results

Descriptive Statistics for Main Study Variables

See online Supplemental Table 1 for Ms, SDs, and CIs for study variables for each discussion, and Supplemental Table 2 for correlations among study variables for each discussion. Correlations among study variables show that neither SCR reactivity nor SCR slope correlates with negative anticipation, emotional reactions, or closeness. Antagonistic and vulnerable emotions tend to be positively correlated; both types of emotions are inversely related to partner closeness in the change discussion but not in the loss discussions.

Validity Check on the Uniqueness of Loss Discussions: Pre- and Post-Discussion Appraisals

Prior to the discussions, participants reported greater negative anticipation for their own loss discussion than either the partner's loss discussion ($b = -0.58$, 99% CI[-0.76, -0.40], $z = -8.39$, $p < .001$) or the change discussion ($b = 0.26$, 99% CI[0.04, 0.48], $z = 2.99$, $p = .003$). Change elicited greater negative anticipation than partner's loss ($b = -0.33$, 99% CI[-0.54, -0.11], $z = -3.95$, $p < .001$). Post-discussion appraisals showed higher reports of 'expressing something new' after narrating own loss compared to change ($b = 0.51$, 99% CI[0.25, 0.76], $z = 5.05$, $p < .001$) or partner loss ($b = -0.69$, 99% CI[-0.96, -0.41], $z = -6.46$, $p < .001$). Participants also reported more openness and honesty during own loss, compared to partner's loss ($b = -0.18$, 99% CI[-0.32, -0.04], $z = -3.41$, $p < .001$). Similarly, listening to the partner's loss elicited higher reports of 'learning something new' than either own loss ($b = 1.01$, 99% CI[0.72, 1.30], $z = 8.93$, $p < .001$) or change ($b = 0.62$, 99% CI[0.38, 0.86], $z = 6.65$, $p < .001$). Compared to either loss discussion, change discussions elicited more conflict, were more similar to prior discussions, and yielded higher expectations of change. See online Supplemental Table 3 for detailed results of analyses comparing pre- and post-discussion appraisals across the three discussions.

Women overall reported higher negative anticipation than men but there were no other main effects for sex. Interactions between discussion type and sex were not significant.

Aim 1: Comparisons between the Discussions (Emotions, Closeness, and SCR Reactivity)

Table 1 presents the comparisons between discussions in post-discussion emotions, closeness to partner, and SCR. As hypothesized, narrating own loss, compared to change and partner's loss, generated more vulnerable emotions (sadness and hopelessness). Listening to partner's loss also elicited more sadness than the change discussion. Contrary to expectation, loss narrators also reported more antagonistic emotions, i.e., more anger, than in either of the other discussions and more irritation than when listening to partner's loss. Loss narrators and listeners, however, reported less irritation than during the change discussion. This unexpected finding regarding anger may reflect that we did not differentiate between anger toward partner versus anger toward a distressing circumstance. From a relationship perspective, both loss discussions (narrating own loss and listening to partner's loss) were related to higher ratings of closeness than discussing change. Mean SCR reactivity, taking into account baseline, was higher when narrating own loss than when listening to partner's

loss. Mean SCR reactivity also was higher during the change discussion than during either loss discussion.

In follow-up analyses of post-discussion reactions that included interactions with sex, two main effects for sex emerged with women reporting higher overall levels of sadness and feeling upset. Interaction effects (not shown on Table 1) indicate that while both women (b = 1.90, 99% CI[1.57, 2.24], z = 14.74, p < .001) and men (b = 1.40, 99% CI[1.04, 1.76], z = 10.07, p < .001) report more sadness when narrating own loss than during the change discussion, the difference is greater in women (b = −0.50, 99% CI [−0.94, −0.07], z = −2.97, p = .003). Another sex effect (b = 0.62, 99% CI[0.02, 1.23], z = 2.65, p = .008) emerged for sadness in the two loss discussions; women are sadder when narrating own loss than when listening to partner's loss (b = −0.88, 99% CI[−1.29, −0.48], z = −5.64, p < .001), whereas men's sadness did not differ significantly between the loss discussions (b = −0.26, 99% CI[−0.63, 0.10], z = −1.84, p = 0.066).

Aim 2: SCR Slopes across Time during Loss and Change Discussions

Results for Aim 2, testing whether sympathetic arousal declines or increases during these three emotionally evocative discussions, are illustrated in Figure 1, which estimates slopes by entering time into the models for women and men in each discussion. As hypothesized, narrating own loss produced significant decreases in SCR, but only for women; men's average slope for own loss was neither significantly increasing nor decreasing. Comparing women and men as loss narrators showed a significant sex difference in SCR trajectories (b = 0.03, 95% CI[0.01, 0.06], z = 2.84, p = .005). In line with our hypothesis about listening to partner's loss, results showed significant increasing SCR slopes for both men and women, perhaps a sign of effortful responsiveness or high attentiveness. Change discussions showed significant negative slopes for women and men, reflecting dampening in SCR over time during those discussions.

Three-way cross-level interactions reveal a more distinct SCR slope difference between partner loss versus own loss for women than men (b = −0.04, 95% CI[−0.07, −0.00], z = −2.19, p = .029); however, the SCR slope difference between own loss and change was more distinct for men than for women (b = 0.04, 95% CI[0.00, 0.07], z = 2.18, p = .029). Decomposing interactions highlights that women's SCR slope when listening to partner's loss was significantly different from their SCR slopes when narrating own loss (b = 0.05, 95% CI[0.03, 0.07], z = 4.77, p < .001), or when discussing change (b = 0.04, 95% CI[0.02, 0.07], z = 3.83, p < .001). In men, both listening to partner's loss (b = 0.04, 95% CI[0.02, 0.06], z = 3.77, p < .001), and narrating own loss (b = 0.03, 95% CI[0.00, 0.05], z = 2.13, p = .034), produced significantly different SCR trajectories than the change discussion. See online Supplemental Table 4 for details about the three-level models testing whether SCR slope varies by discussion and sex.

Aim 3: Congruence and Incongruence in Couple SCR Patterns during Loss Discussions and Post-Discussion Perceptions of Closeness

To examine whether congruence in the direction of partners' SCR slopes is associated with post-discussion perceptions of relationship closeness, we calculated each partner's slope

and plotted narrator-listener pairings of SCR slopes. Figure 2 displays the couple SCR pairings with separate quadrant plots for women as narrator (left) and men as narrator (right). The most common couple pairing during women's loss discussions is that female narrators showed decreases while male listeners showed increases (35.2%). During men's loss discussions, the most common pairing is congruent increases in SCR for both partners (42.4%). Congruent decreases occurred during 29.5% of the women's loss discussions and 22.2% of men's loss discussions. The least common pattern was increasing SCRs for the narrator and decreasing in SCRs for the listener (10.5% for women's loss and 11.1% for men's loss discussions).

Based on our hypothesis of congruent vs. incongruent pairings and because of the small number of couples with the speaker SCRs increasing and listener SCRs decreasing, we combined the two groups with the incongruent SCR slopes for the analyses comparing couples' reports of closeness after each loss discussion. For interpretability, we conducted separate analyses on women's and men's loss discussions. Figure 3 displays the findings and online Supplemental Table 5 presents main effects of the regression models. For women's loss discussions, partners in the group with congruent decreasing SCRs reported higher closeness compared to groups with increasing SCR slopes ($b = 0.78$, 95% CI[0.09, 1.47]), $z = 2.22$, $p = .027$) or incongruent SCR slopes ($b = 0.66$, 95% CI[0.17, 1.14]), $z = 2.66$, $p = .008$). Thus, partially in line with our Aim 3 hypotheses, partners' sense of greater relationship closeness was associated with being physiologically in sync—but only when that synchrony was in the direction of both partners showing declining, not increasing, SCRs. No main effects emerged for men's loss discussions.

In follow-up analyses for interactions with sex, no interactions emerged for women's loss discussions. For men's loss, a significant group by role (narrator vs. listener) interaction emerged between the group with congruent decreasing SCRs vs. incongruent SCRs ($b = -0.76$, 95% CI[−1.45, −0.07]), $z = -2.14$, $p = .033$). As with main effects for women's loss discussions, women listeners in couples with congruent decreasing SCRs reported somewhat, albeit not significantly, higher closeness compared to women in couples with incongruent SCRs ($b = -0.60$, 95% CI[−1.25, 0.05], $z = -1.81$, $p = .070$). In contrast, men as narrators did not report different closeness ratings based on SCR groupings ($b = 0.16$, 95% CI[−0.47, 0.78], $z = 0.49$, $p = .625$).

Discussion

This study introduces loss discussions to expand our understanding of couple interaction dynamics and to investigate whether talking about personal losses has salutary effects for couples and individuals. Narrating a personal loss appeared to elicit soft emotions such as sadness and hopelessness. Listeners similarly reported high sadness and indicated that they learned something new about their partner. Notably, both narrators and listeners rated partner closeness higher following loss discussions relative to change discussions. Beyond self-report data, we observed under-the skin phenomena during loss discussions, specifically changes in sympathetic activation. Listeners generally showed increasing SCRs across partner's loss. As narrators, women overall showed decreasing SCRs whereas men as narrators were more mixed in direction of SCR change. Moreover, when women

narrated, physiological synchrony with congruent decreasing SCRs was associated with higher closeness ratings for both women and men; the more common pattern, however, was decreasing SCRs for women and increasing SCRs for men. When men narrated, congruent SCR increases was the most common pattern, although women tended to report slightly more closeness with congruent decreases. Without follow-up, caution is warranted in interpreting the emotional, relational, and physiological outcomes elicited here as anything beyond momentary occurrences; yet creating even short-term circumstances that can shift couples in relationship-promotive directions is not always easily attained.

A novel dimension of this study is the continuous assessment of sympathetic activation to investigate mean differences across discussions and also more nuanced patterns of increasing versus decreasing SCRs. SCR data provide unique insight into the experience of listening to a partner's loss. Overall, listeners had lower negative anticipation pre-discussion and lower average SCRs, yet showed increases in SCRs as the discussion progressed. Together these results could imply unanticipated yet escalating arousal. Heightened EDA typically accompanies the heightened cognitive focus of comprehending salient, novel information (Dawson et al., 2007) and increasing emotional distress (Eisenberg et al., 1991). Yet some listeners showed decreases in SCRs, supporting prior research on links between compassion and physiological downregulation (Corner et al., 2019; Stellar & Keltner, 2017). A yet-to-be tested possibility is that, if such discussions were to extend longer, upward SCR slopes might convert downward as listeners regulate their internal distress and become outwardly-engaged.

For loss narrators, it is possible that their physiological reactions are influenced by the act of disclosure or by the partner's reaction—both of which offer plausible explanations for SCR gender differences. When narrating loss, women tended to show reductions in SCR, whereas men's slopes were more mixed. Physiological downregulation has been interpreted as a sign of emotional regulation (Bloch et al., 2014) and as the outcome of high disclosure rather than inhibition (Pennebaker et al., 1987). Women's largely declining SCRs when narrating may reflect their greater comfort with disclosure and emotional vulnerability. These results align with prior findings that women talk more about their stress (Kuhn et al., 2018). For men, highly personal, emotion-laden disclosure may be unfamiliar and discomfiting. EDA gender differences may also reflect how the narrator experiences the partner. If confiding a prior loss elicits a caring response from the partner, the loss narrator may experience Collins & Feeney's (2000) "safe haven" where the romantic partner emerges as a new source of comfort in dealing with loss. Women narrators may see their partner in a new light, i.e., as more emotionally responsive than usual to their distress, which could contribute to their declining SCR slopes. Men, in contrast, may be more accustomed to seeing their partner as emotionally open and approachable.

Loss discussion data also suggest the relevance of the direction of physiological co-regulation. In women's discussions, synchronous narrator-listener decreasing SCRs (i.e., congruently regulating closer to baseline levels) was associated with greater closeness relative to synchronous increasing slopes (i.e., putative distress contagion), asynchronous patterns (i.e., narrator's decreasing arousal paired with listener's escalating, "taking on of" the partner's arousal), or narrator's increasing SCR paired with listener's decreasing SCR

—possibly a sign of listener's detachment. For men's loss discussions, linkage direction did not differentiate closeness, perhaps because of the number of couples (42.4%) showing mutual arousal. Long-term implications of sympathetic activation when discussing loss are unknown. Moreover, heightened SCR is understandable and warranted in the context of such discussions.

Our data suggest that discussing loss has relevance even for young couples. The amount and seriousness of these participants' losses converge with prior research about the commonality of loss at this age (Neimeyer et al., 2008). Yet, with loss seemingly incongruous with peers' everyday concerns, young adults may not know where to turn to talk about serious losses. Thus, introducing these topics into young adults' romantic relationships may be particularly poignant and impactful and may help them cultivate the "safe haven" dimension of their relationship. Results here also provide new insight into change discussions, included here primarily for comparison purposes. High overall SCR when discussing desired changes may reflect perceived risk in such discussions, particularly for dating couples with uncertain futures. Yet declining SCR across the discussion suggests that talking over such concerns can bring about some relief.

Limitations and Future Directions

Although brief, standardized loss discussions facilitate direct comparisons between the two loss discussions and the change discussion, this research design also poses some limitations. First, the brevity of these discussions provides only an initial snapshot, especially since the 'social-communicative' experience of confiding loss may need to be done gradually and spread out over time (Harvey et al, 2004). Second, relatedly, our data only reflect immediate reactions; follow-up data are needed to conclude anything about long-term implications of these reactions to loss discussions. Third, though change discussions were not the primary focus here, comparisons between loss and change would be improved with a randomized order between the two types of discussions as well as separate discussions for each partner's desired changes. Fourth, identifying mechanisms underlying reactions to these discussions requires information about the partners' actual behaviors through moment-by-moment behavioral coding, which is underway. Fifth, EDA, in combination with other physiological measures, e.g., respiration, heart rate, would further illuminate under-the-skin phenomena associated with loss discussions. Additional future questions include the impacts of extended conversations under more naturalistic conditions; impacts of discussing losses that the partner already is aware of; effects of such conversations when the loss is still emotionally raw; reactions in high-conflict couples; and impacts for couples who may share the same loss. Moreover, in addition to relationship history and personality variables, racial, ethnic and cultural norms regarding grief and emotional communication are important contexts for understanding responses to loss (Hooghe et al., 2011).

Loss and grief increasingly are recognized as bringing about emotional and physiological dysregulation with concomitant tolls on psychological and physical well-being (Edelman, 2020; Hofer, 1984; Rook & Charles, 2017; Sbarra & Hazan, 2008). Conversely, relationships that provide support and connection are recognized as beneficial to health and protective in the link between adversity and later disease (e.g., Robles et al., 2014; Slatcher &

Schoebi, 2017). Couple loss discussions potentially provide a format for integrating these two literatures, and relatedly, also address recent calls (e.g., Pietromonaco & Collins, 2017; Sbarra & Coan, 2018) for research into microlevel interpersonal processes—specifically emotional experiences attendant to couple interactions—to identify mechanisms in couple interactions underlying personal well-being.

Conclusions

Given the universality of loss, everyone needs ways to withstand it. Yet many quietly struggle with loss and we often have difficulty naming and connecting through grief (Edelman, 2020). To date, dealing with with loss largely has been conceptualized in research, clinical, and lay literatures as an individual process. This study, in contrast, brings loss into the relationship context by revealing possible benefits of talking to a romantic partner. From a relationship perspective, loss narrators' poignant disclosures implicitly elevate the partner to someone who can be trusted as a responsive listener. With self-disclosure and responsiveness two key elements for relationship well-being, conversations about loss may bring forth couples' better natures.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

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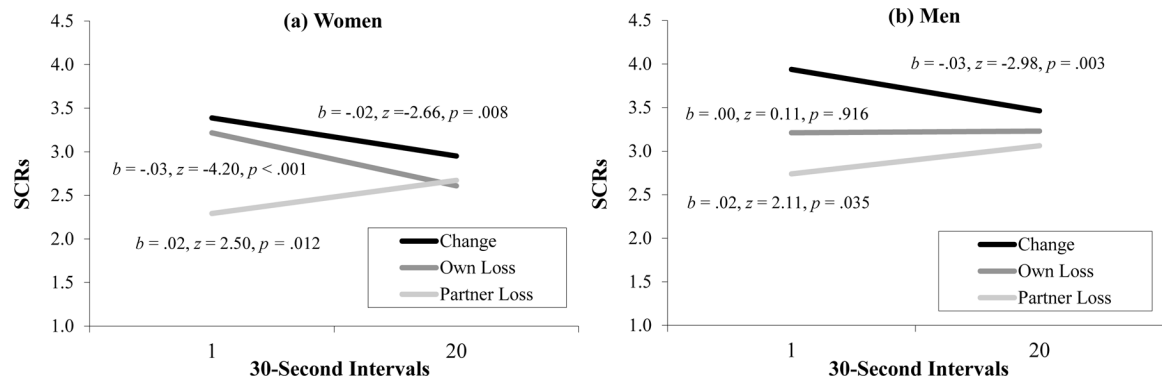
Figure 1.
Skin Conductance Response (SCR) Slopes Calculated in 30-Second Intervals Across Each
Discussion for (a) Women and (b) Men

(a) Women's Loss Discussions
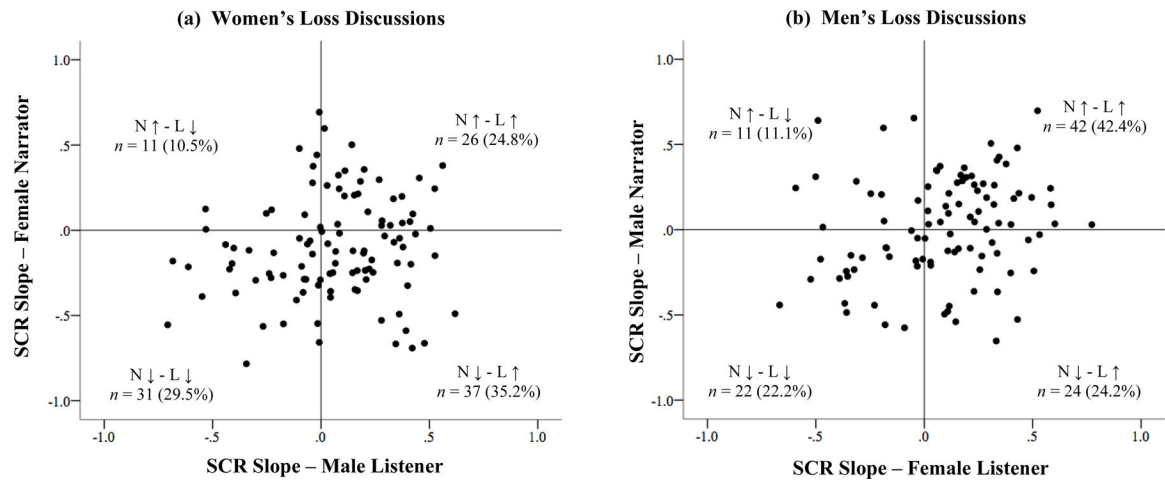
(b) Men's Loss Discussions

Figure 2.

Scatter Plots of Skin Conductance Response (SCR) Slope Coefficients for (a) Women's and (b) Men's Loss Discussions

Note. Couples are included on these plots if both partners had useable SCRdata. N ↓ - L ↓ signifies that both Narrator and Listener have decreasing SCR slopes; N ↑ - L ↑ signifies that both Narrator and Listener have increasing SCR slopes; N ↑ - L ↓ signifies an increasing slope for the Narrator and a decreasing slope for the Listener. N ↓ - L ↑ signifies a decreasing slope for the Narrator and an increasing slope for the Listener.
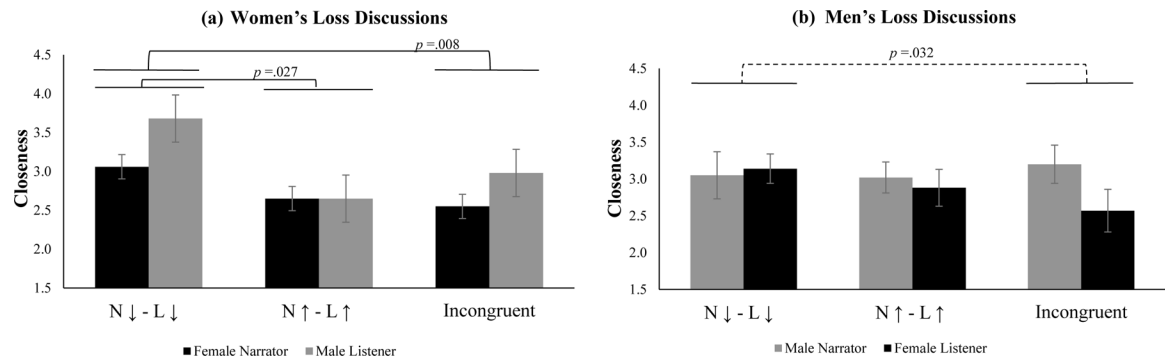
Figure 3.

Mean Scores on Closeness Ratings Following (a) Women's and (b) Men's Loss Discussions

Note. N ↓ - L ↓ signifies the group of couples with both Narrator and Listener having decreasing SCR slopes; N ↑ - L ↑ signifies the group of couples with both Narrator and Listener having increasing SCR slopes; Incongruent signifies couples with one partner having an increasing SCR slope and the other having a decreasing SCR slope. Solid line represents significant group effect. Dashed line represents significant group x role (narrator vs. listener) interaction. Closeness = Rating of feeling close minus rating of feeling distant. Error bars represent ± 1 standard error of the mean.

Table 1

Comparisons Across Discussions in Self-Reported Emotions, Relationship Impacts, and Skin Conductance Reactivity Between Own (O) Loss Discussion, Partner (P) Loss Discussion, and Change Discussion

Vulnerable Emotions

			Sadness						Hopelessness		
Variable	b	SE	99% CI	z	p	b	SE	99% CI	z	p
O Loss vs Change	1.66	0.11	[1.39, 1.92]	15.81	<.001	0.23	0.07	[0.04, 0.41]	3.19	.001
P Loss vs Change	1.08	0.10	[0.82, 1.34]	10.70	<.001	-0.05	0.06	[-0.19, 0.10]	-0.81	.420
P Loss vs O Loss	-0.57	0.09	[-0.81, -0.34]	-6.19	<.001	-0.28	0.07	[-0.45, -0.10]	-4.14	<.001
Sex	-0.22	0.08	[-0.43, -0.01]	-2.75	.006	-0.02	0.06	[-0.19, 0.14]	-0.37	.715
Relationship length	0.00	0.00	[-0.01, 0.01]	0.79	.430	0.00	0.00	[-0.00, 0.01]	0.63	.528
Cohabitation	-0.05	0.14	[-0.41, 0.31]	-0.36	.718	0.08	0.07	[-0.11, 0.26]	1.09	.276
R^2			25.59%					2.69%		

Antagonistic Emotions

			Anger						Irritation		
Variable	b	SE	99% CI	z	p	b	SE	99% CI	z	p
O Loss vs Change	0.22	0.07	[0.03, 0.41]	3.00	.003	-0.19	0.08	[-0.39, 0.01]	-2.47	.014
P Loss vs Change	-0.07	0.06	[-0.22, 0.08]	-1.20	.231	-0.32	0.07	[-0.49, -0.15]	-4.92	<.001
P Loss vs O Loss	-0.29	0.06	[-0.45, -0.12]	-4.53	<.001	-0.13	0.04	[-0.24, -0.02]	-2.97	.003
Sex	-0.08	0.06	[-0.22, 0.07]	-1.39	.165	0.00	0.05	[-0.13, 0.13]	0.01	.992
Relationship length	0.00	0.00	[-0.00, 0.01]	2.13	.033	0.00	0.00	[-0.00, 0.01]	1.66	.097
Cohabitation	0.16	0.07	[-0.03, 0.35]	2.18	.030	0.14	0.07	[-0.04, 0.33]	2.00	.045
R^2			3.23%					3.93%		

			Partner Closeness						Skin Conductance Reactivity		
Variable	b	SE	99% CI	z	p	b	SE	99% CI	z	p

	Vulnerable Emotions									
	Sadness					Hopelessness				
Variable	b	SE	99% CI	z	p	b	SE	99% CI	z	p
O Loss vs Change	0.26	0.11	[−0.02, 0.52]	2.43	.015	−0.39	0.09	[−0.62, −0.15]	−4.26	<.001
P Loss vs Change	0.35	0.10	[0.09, 0.61]	3.44	.001	−0.75	0.08	[−0.96, −0.54]	−9.27	<.001
P Loss vs O Loss	0.09	0.08	[−0.12, 0.30]	1.13	.258	−0.36	0.09	[−0.59, −0.14]	−4.20	<.001
Sex	0.29	0.12	[−0.02, 0.60]	2.40	.016	0.21	0.18	[−0.24, 0.67]	1.22	.222
Relationship length	−0.00	0.00	[−0.01, 0.01]	−0.70	.484	0.01	0.00	[0.00, 0.02]	2.65	.008
Cohabitation	0.08	0.21	[−0.46, 0.63]	0.39	.695	−0.18	0.19	[−0.68, 0.32]	−0.93	.353
R^2	1.86%					4.64%				

Note: Number of observations = 684. Closeness = Rating of feeling close minus rating of feeling distant. SCR reactivity = mean SCR during the discussion minus mean SCR during relaxation baseline. Variables contrasting discussion types (i.e., O Loss vs Change; P Loss vs Change; and P Loss vs O Loss) are level 1 variables. Sex is a level 2 variable. Relationship Length and Cohabitation are Level 3 covariates.