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To cite this article: Noa Levavi-Franczy, Gal Lazarus & Eshkol Rafaeli (2019): Relational events are more consequential when accompanied by emotional similarity, *Cognition and Emotion*, DOI: [10.1080/02699931.2019.1691979](https://doi.org/10.1080/02699931.2019.1691979)

To link to this article: <https://doi.org/10.1080/02699931.2019.1691979>

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Relational events are more consequential when accompanied by emotional similarity

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ABSTRACT

Shared experience – i.e. commonality in inner states such as feelings, beliefs, or concerns – plays an important role in establishing and maintaining close relationships. Emotional Similarity (ES) can be thought of as one type of shared experience, but the exact role it plays in our responses to specific contexts (objects, events, circumstances) is not well understood. We sought to examine the day-level context-dependent roles of romantic partners' ES. We hypothesised that relational events (i.e. conflict and sexual activity) occurring on days with high ES would be more consequential. Two samples ($N = 44$, $N = 80$) of committed couples completed daily diaries for three and five weeks, respectively. Each evening, partners reported their currently-felt moods, relationship quality, and the occurrence of conflict and/or sex in the preceding 24 h. ES was operationalised as the profile similarity between the partners' moods on each day. Generally, ES moderated the associations between conflict or sex and relational outcomes: on days marked by greater ES, conflict and sex had stronger negative/positive outcomes, respectively. These findings highlight the importance of considering ES on a momentary basis and suggest that it may function as an amplifier of charged relational events.

ARTICLE HISTORY

Received 6 May 2019
Revised 17 October 2019
Accepted 6 November 2019

KEYWORDS

Similarity; romantic relationships; shared experience; emotional experience

Momentary emotional similarity (MES) – i.e. a shared emotional experience at a particular moment in time – may play an important role within close relationships, but is not yet fully understood. In this investigation, we sought to examine the day-level context-dependent effects of romantic partners' MES on their daily relational outcomes. After reviewing neighbouring literatures on emotional and physiological synchrony as well as on lab and experience-sampling studies of MES itself, we argue that MES's association with relational outcomes is likely to be contingent on the context in which it occurs (e.g. Lazarus, Bar-Kalifa, & Rafaeli, 2018) – in other words, that it may be misguided to expect MES to have a consistent main effect. Instead, we expect MES to interact with negative and positive relational events (in this case, conflict and sexual activity) to predict more intense negative or positive reactions, respectively.

Similarity within relationships

Enduring romantic relationships are characterised by similarity between the partners in a wide range of domains (Bleske-Rechek, Remiker, & Baker, 2009; Gaunt, 2006; Luo, 2009). Interestingly, most partner similarity research has addressed facets such as partners' background or personality, considered by James (1890/1918) to be parts of the “Me” or the “known self”. In contrast, similarity in features of James's “I” or “knower self” – namely, in how partners perceive, react, interpret, and experience things at any given moment – have remained mostly outside of researchers' attention.

Following James's (1890/1918) footsteps, Pinel, Long, Landau, Alexander, and Pyszczynski (2006) contrasted the concepts of Me-sharing and I-sharing: the sharing of aspects of the “Me”s (e.g. both of us having spent summers in band camp), vs. the

sharing of experiences of the “I”s – i.e. shared in-the-moment experiences (e.g. both laughing at the same joke). Pinel and colleagues reasoned that I-sharing will be more consequential than me-sharing, and demonstrated that people prefer others who are objectively similar to them only if they also I-share (i.e. share their subjective experiences).

A recent review by Rossignac-Milon and Higgins (2018) contributes to the growing literature on the concept of “shared reality”, and the important role it plays in establishing and maintaining close relationships. Shared reality has come to refer to the *perception* of having, in common with others, some inner states (feelings, beliefs, evaluations, etc.) towards or about the world. As such, shared reality is a subjective state, and differs from bona fide shared *experience*, which refers to actual sharing of some actual reality (Echterhoff, Higgins, & Groll, 2005). For example, if Ginger believes that Fred feels as excited as she does about dancing, she is experiencing (perceived) shared reality. In contrast, if Fred and Ginger actually report similar excitement while on to the dancefloor, we would say they are having an (actual) shared experience.

Several studies have demonstrated beneficial effects of (perceived) shared reality on initial feelings about a dating partner (Tidwell, Eastwick, & Finkel, 2013) as well as on one’s sense of feeling understood and satisfied with the relationship (Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002). But does *actual* shared experience matter as well, and if so, what role does it play in the day-to-day lives of close relationship partners? Although shared experience studies have been relatively scarce, several paradigms have been used to explore similarity in a range of experiences or behaviours; collectively, they seem to suggest that such similarity is indeed consequential. For example, partners who were similar in the way they communicate were found to show greater mutual romantic interest and greater relationship stability (Ireland et al., 2011). Similarly, physiological similarity across time was found to be tied to better empathic processes and relationship quality among couples (Chatel-Goldman, Congedo, Jutten, & Schwartz, 2014; Helm, Sbarra, & Ferrer, 2014), with partners (vs. strangers) generally showing higher similarity in their physiological reactions (see Palumbo et al., 2017 for a review). Importantly, several studies, starting with Levenson and Gottman’s influential work (1983) have argued that couples who show a stronger shared response (i.e. physiological responses

which are linked over time) may (at times) suffer, rather than benefit, from this linkage. Specifically, linkage may reflect greater mutual reactivity to each other’s stress or negative affect and may set the stage for escalation or harmful feedback loops (e.g. Saxbe & Repetti, 2010).

The literature regarding couples’ emotional similarity consists mostly of studies examining dyadic linkage over time (i.e. synchrony). Emotional synchrony has been found to predict coordination, mutual understanding, commitment, interpersonal cohesion, and attraction (Butner, Diamond, & Hicks, 2007; Vallacher, Nowak, & Zochowski, 2005). Still, as with physiological similarity, emotional synchrony may not be uniformly beneficial. For example, Gottman (1994) found that reciprocated negative affect in dyadic interactions is tied to subsequent marital distress and dissolution – most likely because such reciprocation reflected a tendency to escalate and prolong negative affect. Furthermore, higher levels of synchrony have been linked with individuals’ attempts to change their partners’ behaviour through ridicule, criticism, or nagging (Randall, Post, Reed, & Butler, 2013). Thus, in her definitive review of this literature, Butler (2011; see also Palumbo et al., 2017) concluded that no characteristic of synchrony is inherently “good” or “bad” for interpersonal emotional functioning: synchrony’s merits depend on the relationship context and on the emotions involved.

Momentary emotional similarity

Importantly, emotional synchrony can be thought of as one type of similarity – namely, the ways an emotion (typically, just one) unfolds across time in two members of a dyad. A different type of similarity worth examining involves the degree to which dyad members are similar across multiple emotions but within a specific point in time. In the present work, we are interested in capturing such momentary similarity, defined as the degree to which two individuals are experiencing similar emotions *at a particular point in time* (i.e. within the same situation, in the same evening, etc.).

To date, a small number of studies have examined momentary emotional similarity (MES). In one, participants experiencing a threatening situation jointly with a randomly-paired stranger who felt similar (vs. dissimilar) emotions were found to have reduced cortisol responses and lower reported stress (Townsend, Kim, & Mesquita, 2014). In another, Anderson, Keltner,

and John (2003, Study 2) demonstrated that college roommates become more emotionally similar to each other over time, and that such similarity was tied to closer friendships. The same authors (Study 1) also found that emotional similarity among dating couples was tied both concurrently and prospectively to relationship satisfaction, (and inversely tied to relationship dissolution). A similar association between MES and relationship satisfaction was also reported by Gonzaga, Campos, and Bradbury (2007). Finally, couples who had greater MES were shown to provide more skilful support and less negative support (Verhofstadt, Buysse, Ickes, Davis, & Devoldre, 2008).

The studies noted above all examined MES within the lab. As such, they relied on nonspontaneous lab interactions, taking place outside the context of dyads' everyday life, and are therefore limited in their ecological validity. Moreover, all of these studies assessed MES at a specific time point, and thus, focused on micro-level dynamics, at the expense of a more macro-level examination that would be possible if MES were assessed over the course of days or weeks. Thus, a central goal of the present work was to take the study of MES into daily life.

Recent work by Sels, Ruan, Kuppens, Ceulemans, and Reis (2019) has done just that. In two studies, these authors utilised an index of similarity (the inverse Euclidian distance between partners' valence and arousal scores on affect grid marks completed simultaneously several times a day over several days). They demonstrated that when couples were more similar in their gross affect, they also perceived each other as more responsive and felt greater love towards each other. (They also explored the role of perceived similarity, finding it to mediate these associations).

The Sels et al. (2019) study demonstrates some of the benefits of intensive longitudinal methods – in particular, taking MES outside of the lab and into daily life. They also begin examining this construct vis-à-vis contextual elements in the respondents' life (specifically, the co-location of the partners). In the present work, we sought to further exploit these data collection methods in two novel ways. First, we wished to examine entire mood profiles (rather than rudimentary affect ratings). Second, we wanted to obtain contextual reports of dyadic events or factors, both negative (e.g. conflicts) and positive (e.g. physical intimacy).

Momentary emotional similarity in context

As we noted above, the extant literature on MES (whether assessed using laboratory or experience sampling methods) has found it to be tied to salubrious outcomes. However, several pieces of evidence raise our suspicion that MES may not always work that way. First, there's the evidence noted above from studies of the other form of similarity – emotional or physiological synchrony – finding mixed and context-dependent results (for review, see Butler, 2011; Palumbo et al., 2017). Second, a pair of experimental studies by Boothby, Clark, and Bargh (2014; Boothby, Smith, Clark, & Bargh, 2016) have shown that sharing an experience (specifically, the experience of tasting sweet or bitter chocolate) amplifies the experience *for better or for worse*, particularly when the co-experiencer is a close person.

Building on this work, we would argue that greater MES would exert an amplifying effect, making negative relational contexts more negative, and positive ones more positive. When negative events or contexts occur, greater MES represent negative emotional contagion, generating (or at least being a part of) reciprocal escalatory cycles that may hinder the ability to step back and create some healthy distance in times of relational tensions. Conversely, when positive events or contexts occur, greater MES may represent positive emotional contagion, fostering (or at least serving as an indicator for) greater closeness which broadens and builds on the positive context.

Thus, we set out to examine the contextual role of MES, and specifically, the extent to which MES moderates the effects of important relational contexts – or is moderated by them. We chose to focus on one negative context (i.e. daily conflict) and one positive context (i.e. daily sexual activity). Based on Butler's (2011) contextual stance, as well as on Boothby et al.'s (2014, 2016) findings, we reasoned that emotional similarity will be tied to more intense positive and negative reactions to positive and negative relational contexts, respectively. Importantly, this moderation may occur at either (or both) the moment level (i.e. moments marked by similarity being characterised by intense reactions) and the aggregate level (i.e. couples marked by higher similarity, on average, being characterised by more intense reactions, on average).

The following hypotheses guided our work:

MES on conflict days: We expected conflict days marked by greater MES to involve lower daily

relationship satisfaction than conflict days marked by lower MES.

Similarly, we hypothesised that couples characterised by greater mean-level MES would be more negatively reactive to conflict.

MES on sexual activity days: Conversely, we expected days on which sexual activity occurred, and which were marked by greater MES, to involve greater daily relationship satisfaction than similar days marked by lower MES. Similarly, we hypothesised that couples characterised by greater mean-level MES would be more positively reactive to sexual activity.

We explored these hypotheses in two samples of committed couples who completed daily diaries. The diaries included items assessing daily moods (which served as the basis for our emotional similarity index), as well as items inquiring about relationship conflict and sexual activity (which served as our daily predictors). The diaries in both samples also included items tapping daily relationship feelings, and those completed by the second sample included a brief measure of Perceived Partner Responsiveness (PPR; Reis, Clark, & Holmes, 2004); these served as outcome variables.

Study 1

Method

These data are taken from a broader project investigating dyadic processes (see SOM; <https://osf.io/6apq7>).

Participants

Couples were recruited via advertisements posted on physical and online bulletin boards in the New York City area. To participate, couples had to have been cohabiting for at least 6 months and be at least 18 years of age. In return for their participation, couples received \$90 and were included in a raffle for \$200. Fifty-five couples entered the study. We excluded data from four couples: Three same-sex couples were excluded because our focus was on gender differences, and another couple was excluded due to equipment malfunction. Of the remaining 51 couples, 7 couples had insufficient daily diary data. We used all available data from the remaining 44 couples for each analysis. Sample demographics are available in Table S1 in the Supplemental Online Materials (SOM).

Procedure

Each evening, for 21 days, participants were asked to complete a diary questionnaire 1 h before going to sleep. They were instructed to complete the daily questionnaires separately, without discussing their individual responses. The daily diary was completed electronically on individual handheld devices, outfitted with the iESP diary programme (Barrett and Barrett (2001), with later adaptation by the Intel Corporation). Couples were contacted by staff several times throughout the diary period to answer questions and ensure compliance. Participants completed an average 19.8 diary entries ($SD = 3.3$).

Measures

Daily moods. Participants were asked to report their current moods using an adapted and shortened daily diary version (Cranford et al., 2006) of McNair, Lorr, and Droppleman's (1971) Profile of Mood States, which included 18 positive and negative mood items. The questionnaire requires participants to rate the extent to which they feel various moods on a 5-point Likert scale (i.e. "Please rate the extent to which you are feeling or experiencing these feelings or emotions right now"). The items we used were: cheerful, pleased, calm, lively, happy, relaxed, at ease, content, vigorous, on edge, uneasy, hopeless, annoyed, angry, discouraged, sad, anxious, and resentful. The within- and between-person reliabilities for the negative mood scales were computed using procedures outlined by (Lane & Shrout, 2010), and were found to be .77 and .85, respectively; the corresponding estimates for the positive mood scales were .85 and .84, respectively.

Daily relationship feelings (RF). Participants' daily RF levels were assessed using an adapted version (Rafaeli, Cranford, Green, Shrout, & Bolger, 2008) of the Emotional Tone Index (Berscheid, Snyder, & Omoto, 1989) that included 12 items tapping the extent to which they were experiencing those feelings within their relationship with their partner at the moment. Relationship feelings were measured on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). Two scales were formed from these items: positive relationship feelings (content, satisfied, happy, excited, passionate, elated, and joyful), and negative relationship feelings (fearful, worried, sad, depressed, angry, irritated, disgusted, and hostile). The within- and between-person

reliabilities for the positive RF scales were .84 and .92 respectively. Average positive RF level across all days were 2.73 (SD = 0.77). The within- and between-person reliabilities for the negative RF scales were .66 and .62 respectively. Average negative RF level across all days were 0.26 (SD = 0.36).

Conflict. Conflict on a given day was defined as “a situation in which partners disagreed significantly and was expressed verbally or behaviorally”. Conflicts were assessed with the following dichotomous item: “Has there been conflict in your relationship during the last 24 hours?”. Conflict was reported by participants on 25% of days. Partners’ percentage of agreement regarding the presence or absence of conflict were 80%.

Sexual activity. Sexual activity on a given day was assessed with the following dichotomous item: “Did you engage in sexual activity with your partner in the last 24 hours?”. Sexual activity was reported by participants on 36% of days. Partners’ percentage of agreement regarding the presence or absence of sexual activity were 84%.

Results

Data analytic approach

Recent years have brought considerable advances in the development of analytic tools for the assessment of dyadic similarity (e.g. Furr, 2008; Rogers & Biesanz, 2015; Wood & Furr, 2016). In light of these advances, a recent review by Rogers, Wood, and Furr (2018) suggests that the best way to assess similarity in couples involves the use of profile correlations or profile similarities, and our current work followed these guidelines. To assess momentary emotional similarity, we used an index of profile similarity across all mood items. Importantly, extensive research has demonstrated that profile similarity indices tend to be inflated due to both parties’ similarity to a normative profile (Furr, 2008); moreover, this similarity tends to be adaptive in itself. These two issues bring about a “*normative-desirability confound*” (Wood & Furr, 2016), according to which the effects of dyadic similarity indices are confounded with the effects of individuals’ similarity to the normative profile. To circumvent this confound, we followed recommendations by Wood and Furr (2016) and centred each mood item around its mean across the entire sample, thus creating a distinctive profile for each

partner, reflecting that partner’s *daily deviations* for each of the mood items from the normative mood profile. We then calculated daily distinctive profile similarity correlations between these distinctive profiles of the partners in each couple, resulting in a single profile similarity score for each couple at each time-point. Of note, distinctiveness could have also been calculated by centering each mood item around its person-mean. We opted for the first option since separating between- and within-person variance was conducted in a later step, in which we person mean-centred the similarity index itself.

Additionally, we removed data from days in which all negative mood items and all positive mood items had no variance, which creates a spurious perfect correlation.¹ Finally, we Fisher-transformed the profile correlations.

Because our data have a multilevel structure (days nested within persons, and persons nested within couples), we used multilevel models (MLM, using PROC MIXED; SAS Institute, 2003). These allow us to estimate two levels (a within-individual level and a between-individual level), take into account the non-independence of partners within a couple, and accommodate non-balanced data. These data have three conceptual levels, but the absence of random variability at the within-dyad level (the third conceptual level) implies that it is saturated; consequently, two-level models were more appropriate (Bolger & Laurenceau, 2013). We estimated the models for men and women together and examined the significance of gender interactions for all effects. When these did not reach significance, the interaction term was excluded from the analysis. To reduce the concern of reverse causation, analyses included the lagged score (i.e. the previous day’s score) of the outcome variable. Finally, to examine the extent to which between-couple differences (as opposed to within-couple differences) in MES play a role in couples’ daily life, we included the average couple-level MES score across all days in all analyses.

To examine the role of MES in the presence/absence of conflict and sex, we predicted romantic partners’ daily relational outcome variables (i.e. positive RF and negative RF) using dichotomous couple-level variables indicating the occurrence of (a) conflict and (b) sexual activity (marked 1 when at least one partner reported occurrence of conflict/sex); (c) Day-Level MES; the level-1 interactions between Day-Level MES and (d) conflict or (e) sex; (f) Couple-Level MES; the cross level-interactions

between Couple Level MES and (g) conflict or (h) sex; and finally, (i) the lagged outcome. The level 1 equation was:

$$\begin{aligned} \text{Outcome}_{ijk} = & \beta_{0ij} + \beta_{1ij} * \text{Conflict}_{jk} + \beta_{2ij} * \text{Sex}_{jk} \\ & + \beta_{3ij} * \text{Day-Level MES}_{jk} \\ & + \beta_{4ij} * \text{Conflict}_{jk} * \text{Day-Level MES}_{jk} \\ & + \beta_{5ij} * \text{Sex}_{jk} * \text{Day-Level MES}_{jk} \\ & + \beta_{6ij} * \text{Lagged Outcome}_{ijk} + e_{ijk} \end{aligned}$$

where the outcome for person i in couple j on day k is predicted by person's i intercept, by their effects of Conflict (β_{1ij}), Sex (β_{2ij}), Day-Level MES (β_{3ij}), the level 1 interactions between Conflict and Day-Level MES (β_{4ij}) and between Sex and Day-Level MES (β_{5ij}), by the effect of the Lagged Outcome (β_{6ij}), and by a level-1 residual term (e_{ijk}) quantifying the day's deviation from these effects for person i . In addition, within-person residuals ($e_{im/ff}$) were allowed to correlate within couples, and a first-order autoregressive structure was imposed on the within-person residual covariance matrix. Random effects were allowed to correlate.²

The level 2 equations were:

$$\beta_{0ij} = \gamma_{00} + \gamma_{01} * \text{Couple-Level MES}_j + u_{0ij}$$

$$\beta_{1ij} = \gamma_{10} + \gamma_{11} * \text{Couple-Level MES}_j + u_{1ij}$$

$$\beta_{2ij} = \gamma_{20} + \gamma_{21} * \text{Couple-Level MES}_j + u_{2ij}$$

$$\beta_{3ij} = \gamma_{30} + u_{3ij}$$

$$\beta_{4ij} = \gamma_{40}$$

$$\beta_{5ij} = \gamma_{50}$$

$$\beta_{6ij} = \gamma_{60} + u_{6ij}$$

where person i 's intercept (β_{0ij}) is predicted by the average intercept (γ_{00}), the fixed effect of the couple level MES and by this person's deviation from them (u_{0ij}). Similarly, the effects of conflict (β_{1ij}) and sex (β_{2ij}) for person i are predicted the average slopes (γ_{10} , γ_{20}), by the fixed effect of the Couple-Level MES (γ_{11} , γ_{21}), as well as by this person's deviation from them (u_{1ij} , u_{2ij}). Finally, the rest of the effects (β_{3ij} – β_{6ij}) are predicted by their respective average slopes (γ_{30} – γ_{60}) and only β_{4ij} was also predicted by the person deviation from their slope (u_{6ij}).³

Our findings of interest were interaction effects as well as the simple slopes derived from these.

Additionally, common methods to calculate effect sizes in MLM generate indices which are hard to interpret since variance exists in more than one level of the model. We therefore opted to present the standardised simple slopes whenever an interaction term reached significance, and to treat them as effect size indices: the standardised simple slopes represent the change (in standard deviation units) in the outcome variables corresponding to the occurrence of conflict or sex on days higher and lower in MES. These standardised simple slopes were estimated in a model where MES was person-standardised and the outcome measures were sample-standardised.

Power estimates on nested data are a complex issue (see Bolger & Laurenceau, 2013, ch. 10; Hox, Maas, & Brinkhuis, 2010, ch. 12). A priori power estimates require assumptions regarding the values of many parameters, often unknown. When no previous pilot data exist to inform such assumptions, as in the present case, some general rules of thumb can be applied. Specifically, Maas and Hox (2005) suggested using at least 50 Level 2 units (participants/couples, in our case) with 20 Level 1 units (measurements, in our case) for each. The importance of the Level 1 units in our case was greater as our main interest were Level 1 interaction effects. We followed Maas and Hox (2005) in ensuring we have at least 50 level-2 and 20 level-1 observations. However, due to attrition and limited adherence we ended up with somewhat underpowered sample.

Descriptive statistics and zero-order correlations

Table 1 presents descriptive statistics of (and inter-correlations among) the means of the study variables across diary days. Couple-level MES was found to be associated with mean positive RFs for both men and women. Importantly, we also examined the day-level dependence of sexual activity and relational conflict, and found them to be independent ($X^2(1, N = 894) = 0.45, p = ns$).

Predicting outcome variables in unmoderated models

Table S2 (SOM; left panels) presents models in which the outcome variables were predicted by day-level MES. No significant results were found with regards to both negative and positive RFs.

Predicting MES by conflict and sex

Table S3 (SOM; left panels) presents models in which the day-level MES was predicted by variables

Table 1. Descriptive statistics of (and inter-correlations among) the participants *mean scores* of daily MES, daily predictors, and daily outcomes.

Variable	1	2	3	4	5	6
1. MES		0.07	0.24*	*0.25/*0.22	0.03/0.04	-0.01/0.14
2. Conflict	0.08		0.28**	-0.23*/-0.24*	0.32*/0.42***	-0.34**/-0.25*
3. Sex	0.08	0.12		0.13/0.24*	-0.01/0.00	-0.04/0.18
4. Positive RFs	0.29*/0.32*	-0.40**/-0.44**	0.14/0.06		-0.42***/-0.42**	0.67***/0.82**
5. Negative RFs	0.03/-0.12	0.32*/0.23	-0.07/-0.21	-0.50***/-0.32*		-0.60***/-0.49**
6. PPR						
Study 1 Mean	0.36	0.29	0.42	2.76/2.71	0.25/0.28	
Study 1 SD	0.33	0.20	0.22	0.79/0.76	0.31/0.40	
Study 2 Mean	0.23	0.26	0.24	2.71/2.81	0.25/0.29	5.06/5.10
Study 2 SD	0.27	0.18	0.13	0.63/0.66	0.33/0.33	0.88/0.87

Note: RFs = Relationship Feelings; MES = Momentary Emotional Similarity; PPR = Perceived Partner Responsiveness.

Study 1 correlations are below the diagonal; Study 2 correlations are above the diagonal.

Relationship outcomes' correlations, means, and SDs are presented for men (left) and women (right) separately.

$N = 44/80$ for studies 1 and 2 respectively.

* $p < .05$; ** $p < .01$; *** $p < .001$.

indicating the occurrence of sex and conflict. No significant results were found.

Emotional similarity as a moderator of the effects of conflict and sex

Negative relationships feelings (see Table 2, left panel). Conflict predicted more negative RFs, and, as hypothesised, day-level MES moderated this effect (see Figure 1, upper left panel). Specifically, the effect of conflict was stronger for high day-level MES ($b = 0.32$, $SE[b] = 0.04$, $t = 7.78$, $p < .0001$, $ES = 0.63$) than for low day-level MES ($b = 0.10$, $SE[b] = 0.03$, $t = 2.84$, $p = 0.005$, $ES = 0.20$). Interestingly, the difference between low and high day-level MES was significant only on conflict days, such that high day-level MES was associated with greater negative RFs ($b = 0.20$, $SE[b] = 0.05$, $t = 3.97$, $p = 0.0001$; $ES = 0.40$). Of note, the gender interaction of day-level MES was significant, though the effect reached significance for neither men nor women.

Sex predicted less negative RFs. No interaction effects were found.

Positive relationships feelings (see Table 3, left panel). Conflict predicted less positive RFs. No interaction effects were found.

Sex predicted more positive RFs, and day-level MES moderated these sex effects (see Figure 2, lower left panel). Specifically, the effect of sex was stronger for high day-level MES ($b = 0.18$, $SE[b] = 0.03$, $t = 4.59$, $p < .0001$, $ES = 0.19$) than for low day-level MES ($b = 0.03$, $SE[b] = 0.04$, $t = 0.94$, $p = ns$, $ES = 0.03$).

Finally, As can be seen in Table 3, couple-level MES predicted more positive RFs.

Discussion

Study 1 provided preliminary indication that romantic partners with greater day-level MES have more intense reactions to sex and conflict. However, these findings were not very robust, most likely because of the study's relatively weak power. Thus, we sought to replicate Study 1 using data from a study that was powered more adequately.

Study 2

Our main objective in Study 2 was to conduct an adequately-powered replication of Study 1. In addition, our data allowed us to examine another outcome variable available in this data set – namely, Perceived Partner Responsiveness (PPR; Reis et al., 2004). PPR refers to an actor's perception that their partner's behaviours communicate understanding, valuing, and caring for one's core self and/or for important personal needs and goals. It has been discussed as an organising construct that ties together various other relational constructs (e.g. attachment, intimacy, caring, and trust; Finkenauer & Righetti, 2011; Reis et al., 2004; Reis, Lemay, & Finkenauer, 2017). Several studies have found PPR to be a key aspect of relationship functioning and satisfaction (e.g. Gable, Gonzaga, & Strachman, 2006; Maisel & Gable, 2009), and to moderate or mediate the effects of relationship behaviours (e.g. support, sexuality) on various outcomes (e.g. Bar-Kalifa & Rafaeli, 2013; Fekete, Stephens, Mickelson, & Druley, 2007; Selcuk & Ong, 2013). Notably, it adds to our other outcome variables (positive and negative RF) by being a perceptual, rather than affective, relational variable. This broadens our examination of the role played

Table 2. Fixed Effects of the Models Predicting Negative Relationship Feelings Moderated by Conflict and Sex.

Fixed effects ^a	Study 1				Study 2			
	Estimate (SE)	95% CI	t (df)	Gender diff.	Estimate (SE)	95% CI	t (df)	Gender diff.
Intercept	0.20 (0.04)	[0.13, 0.27]	5.42 (47)	1.28	0.20 (0.02)	[0.15, 0.25]	8.43 (70.3)	0.64
Conflict	0.21 (0.03)	[0.15, 0.28]	6.45 (37.9)	-3.00	0.25 (0.03)	[0.2, 0.3]	9.55 (70.4)	4.35
Sex	-0.05 (0.02)	[-0.09, -0.01]	-2.77 (271)	-1.44	-0.04 (0.02)	[-0.07, -0.01]	-2.70 (67.1)	0.24
Day-Level MES	-0.01 (0.04)	[-0.09, 0.07]	-0.16 (57.3)	-2.29	0.02 (0.02)	[-0.01, 0.05]	1.12 (90)	-1.05
Conflict* Day-Level MES	0.19 (0.04)	[0.11, 0.28]	4.74 (532)	-0.57	0.16 (0.05)	[0.06, 0.27]	3.12 (67.7)	0.76
Sex* Day-Level MES	-0.02 (0.04)	[-0.09, 0.05]	-0.58 (564)	1.34	-0.11 (0.02)	[-0.15, -0.06]	-4.60 (176.4)	0.68
Couple-Level MES	-0.14 (0.1)	[-0.35, 0.07]	-1.37 (43.6)	-1.68	0.03 (0.08)	[-0.14, 0.2]	0.36 (75.1)	-0.26
Conflict* Couple-Level MES	-0.08 (0.09)	[-0.27, 0.1]	-0.89 (37.3)	1.21	0.26 (0.09)	[0.07, 0.45]	2.74 (73.8)	-0.13
Sex* Couple-Level MES	0.06 (0.06)	[-0.05, 0.17]	1.03 (155)	1.64	-0.06 (0.05)	[-0.16, 0.05]	-1.01 (67.5)	1.87
Lagged Negative RF	-0.24 (0.03)	[-0.31, -0.17]	-7.39 (26.1)	4.38	-0.26 (0.02)	[-0.3, -0.22]	-12.05 (78.6)	1.40

Note: MES = Momentary Emotional Similarity; RF = Relationship Feelings.

^aConfidence intervals (CI) for fixed effects were based on two-tailed t tests with the Satterthwaite approximation method for computing degrees of freedom.

by MES in how partners feel about their relationship on days of sex/conflict as well as in the extent to which they perceive their partners as understanding, caring, and validating on such days.

Method

These data are taken from a broader project investigating dyadic processes (see SOM; <https://osf.io/6apg7>).

Participants

The sample size of the broader project was determined in advance using Maas and Hox's (2005) suggested rule-of-thumb of at least 50 Level 2 units with 20 Level 1 units for each, taking into account expected attrition rates given the demanding study design. Couples were recruited via advertisements posted on physical and online bulletin boards throughout central Israel. To participate, couples had to have been cohabiting for at least 6 months and be at least 18 years of age. In return for their participation, couples received approximately \$100 and were included in a raffle for \$200. Eighty-six couples entered the study, six couples (7%) dropped out during the study period. Sample demographics are available in Table S1 (SOM).

Procedure

Each evening, for 35 days, participants were e-mailed a link to a secure online data collection site (qualtrics.com), asked to complete a diary questionnaire 1 h before going to sleep. They were instructed to complete the daily questionnaires separately, without discussing their individual responses. Couples were contacted by staff several times throughout the diary period to answer questions and ensure compliance. Participants completed an average of 32.5 (SD = 8.7) diary entries.

Measures

Daily moods. As in Study 1, the mood measure included 18 positive and negative mood items: pleased, calm, lively, energetic, happy, relaxed, at ease, content, vigorous, depressed, on edge, uneasy, hopeless, annoyed, angry, hostile, sad, anxious. These were rated on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). The within- and between-person reliabilities for the negative mood scales were computed using procedures outlined by Lane and Shrout (2010), and were found to be .83 and .79,

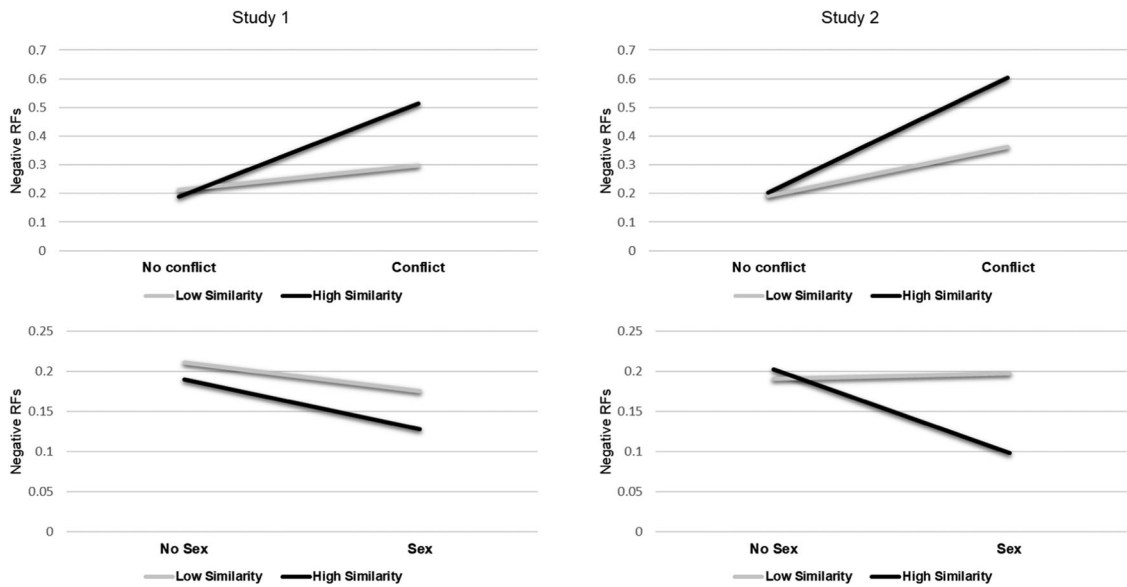


Figure 1. The effects of relational events (conflict and sex) on negative relationship feelings for days high (+1 SD) and low (−1 SD) in emotional similarity. Effects presented are collapsed across gender.

respectively; the corresponding estimates for the positive mood scales were .89 and .88, respectively.

Daily relationship feelings. As in Study 1, participants' daily RF levels were assessed using items tapping both their positive relationship feelings (content, satisfied, excited, passionate, supported, and loved), and negative relationship feelings (worried, angry, irritated, anxious), rated on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). The within- and between-person reliabilities for the positive RF scales were .88 and .83 respectively. Average positive RF level across all days were 2.75 (SD = 0.64). The within- and between-person reliabilities for the negative RF scales were .68 and .75 respectively. Average negative RF level across all days were 0.27 (SD = 0.32).

Perceived partner responsiveness (PPR). Participants' daily PPR was assessed using an adapted and shortened daily diary version (Maisel & Gable, 2009) of Reis et al.'s (2004) responsiveness measure, which included 3 items rated on a 7-point scale, ranging from *not at all* to *very much*. Specifically, each day participants were asked to rate their agreement with these items: *my partner understood me*; *my partner made me feel like he/she valued my abilities and opinions*; *my partner made me feel cared for*. These were averaged daily. The within- and between-

person reliabilities for the scales were .87 and .91 respectively. Average PPR level across all days were 5.08 (SD = 0.86).

Conflict/sexual activity. To assess the presence/absence of conflict and of sexual activity, we used the same dichotomous items used in Study 1. Conflict was reported by participants on 26% of days. Partners' percentage of agreement regarding the presence or absence of conflict were 87%. Sexual activity was reported by participants on 23% of days. Partners' percentage of agreement regarding the presence or absence of sexual activity were 96%.

Results

Data analytic approach

The data analytic approach was identical to that used in Study 1, with an additional model predicating PPR. Additionally, random variance was allowed for the level-1 conflict by Day-Level MES interaction.

Descriptive statistics and zero-order correlations

Table 1 presents descriptive statistics of (and inter-correlations among) between the means of the study variables across diary days. Couple-level MES was found to be positively correlated with mean positive RFs for both men and women, and with greater



Table 3. Fixed effects of the models predicting positive relationship feelings moderated by conflict and sex.

Fixed effects ^a	Study 1				Study 2			
	Estimate (SE)	95% CI	t (df)	Gender diff.	Estimate (SE)	95% CI	t (df)	Gender diff.
Intercept	2.77 (0.1)	[2.57, 2.97]	27.48 (393)	-1.29	2.8 (0.05)	[2.69, 2.91]	51.06 (758)	2.90
Conflict	-0.29 (0.04)	[-0.38, -0.2]	-6.63 (29.8)	1.81	-0.27 (0.03)	[-0.33, -0.21]	-9.45 (61.9)	-2.31
Sex	0.11 (0.03)	[0.05, 0.16]	3.93 (385)	1.03	0.11 (0.02)	[0.07, 0.15]	5.98 (66.1)	0.29
Day-Level MES	-0.04 (0.06)	[-0.16, 0.07]	-0.73 (52.6)	1.36	0.03 (0.02)	[-0.02, 0.07]	1.18 (78.2)	1.91
Conflict*Day-Level MES	-0.09 (0.06)	[-0.21, 0.02]	-1.63 (46.7)	0.75	-0.21 (0.05)	[-0.32, -0.11]	-4.02 (74.6)	-0.66
Sex*Day-Level MES	0.13 (0.05)	[0.03, 0.24]	2.49 (58.2)	0.87	0.1 (0.03)	[0.04, 0.16]	3.28 (208.3)	-0.79
Couple-Level MES	0.74 (0.24)	[0.26, 1.22]	3.13 (32.7)	0.35	0.35 (0.19)	[-0.03, 0.72]	1.85 (78.1)	-0.57
Conflict* Couple-Level MES	0.19 (0.14)	[-0.08, 0.47]	1.41 (35.5)	-0.47	-0.33 (0.11)	[-0.55, -0.12]	-3.16 (69.5)	0.39
Sex* Couple-Level MES	0.05 (0.08)	[-0.11, 0.21]	0.59 (58.1)	0.20	0.03 (0.07)	[-0.1, 0.17]	0.49 (76.1)	-0.82
Lagged Positive RF	-0.29 (0.03)	[-0.35, -0.23]	-10.01 (37.2)	1.48	-0.3 (0.02)	[-0.33, -0.27]	-19.50 (78)	0.83

Note: MES = Momentary Emotional Similarity; RF = Relationship Feelings.

^aConfidence intervals (CI) for fixed effects were based on two-tailed t tests with the Satterthwaite approximation method for computing degrees of freedom.

occurrence of sexual activity. Importantly, though aggregated (mean-level) sexual activity and relational conflict were positive associated ($r = .28, p < 0.01$), they proved to be independent at the day level ($\chi^2(1, N = 2797) = 0.22, p = ns$).

Predicting outcome variables in unmoderated models

Table S2 (SOM; right panels) presents models in which the outcome variables were predicted by day-level MES. day-level MES predicted greater Negative RFs.

Predicting MES by conflict and sex

Table S3 (SOM; right panels) presents models in which the day-level MES was predicted by variables indicating the occurrence of sex and conflict. No significant results were found.

Emotional similarity as a moderator of the effects of conflict and sex

Negative relationships feelings (see Table 2, right panel). Conflict predicted more negative RFs, and day-level MES moderated these conflict effects (see Figure 1, upper right panel). Specifically, the effect of conflict was stronger for high day-level MES ($b = 0.33, SE[b] = 0.04, t = 7.68, p < 0.001, ES = 0.63$) than for low day-level MES ($b = 0.16, SE[b] = 0.03, t = 5.47, p < 0.001, ES = 0.31$). Interestingly, the difference between low and high day-level MES was significant only on conflict days such that high day-level MES was associated with greater negative RFs ($b = 0.18, SE[b] = 0.05, t = 3.29, p = 0.001, ES = 0.38$). Moreover, couple-level MES moderated conflict's effect. Specifically, the effect of conflict was stronger for couples high in MES ($b = 0.31, SE[b] = 0.03, t = 8.65, p < 0.001, ES = 0.92$) than for couples low in MES ($b = 0.17, SE[b] = 0.03, t = 5.00, p < 0.001, ES = 0.01$).

Sex predicted less negative RFs, and day-level MES moderated these sex effects (see Figure 1, lower right panel). Specifically, the effect of sex was stronger for high day-level MES ($b = -0.09, SE[b] = 0.01, t = -5.04, p < 0.001, ES = -0.16$) than for low D.L. MES ($b = 0.01, SE[b] = 0.01, t = 0.60, p = ns, ES = 0.02$). Interestingly, the difference between low and high day-level MES was significant only on sex days such that high day-level MES was associated with lower negative RFs ($b = -0.08, SE[b] = 0.02, t = -3.93, p < 0.001, ES = -0.12$). Couple-level MES did not moderate the effect of sex.⁴

Positive relationships feelings (see Table 3, right panel). Conflict predicted less positive RFs, and day-

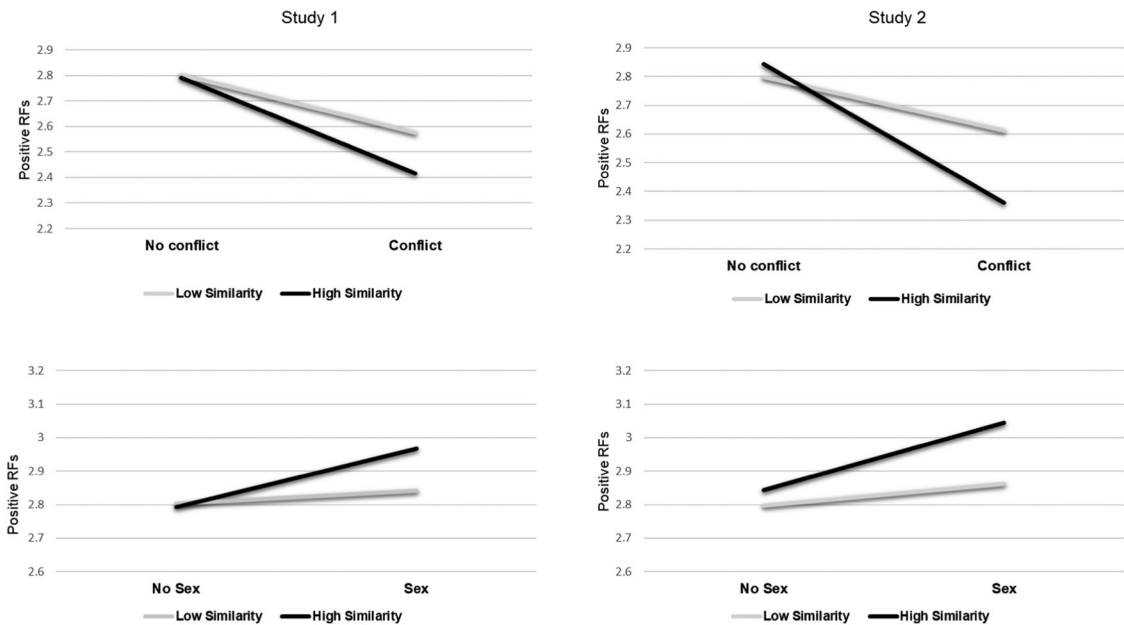


Figure 2. The effects of relational events (conflict and sex) on positive relationship feelings for days high (+1 SD) and low (−1 SD) in emotional similarity. Effects presented are collapsed across gender.

level MES moderated these conflict effects (see Figure 2, upper right panel). Specifically, the effect of conflict was stronger for high day-level MES ($b = -0.38$, $SE[b] = 0.04$, $t = -8.56$, $p < 0.001$, $ES = -0.44$) than for low day-level MES ($b = -0.16$, $SE[b] = 0.03$, $t = -4.90$, $p < 0.001$, $ES = -0.20$). Interestingly, the difference between low and high v MES was significant only on conflict days such that high day-level MES was associated with lower positive RFs ($b = -0.19$, $SE[b] = 0.05$, $t = -3.52$, $p < 0.001$, $ES = -0.20$). Moreover, Couple-level MES moderated conflict's effect. Specifically, the effect of conflict was stronger for couples high in MES ($b = -0.36$, $SE[b] = 0.04$, $t = -8.82$, $p < 0.001$, $ES = -0.73$) than for couples low in MES ($b = -0.18$, $SE[b] = 0.04$, $t = -4.55$, $p < 0.001$, $ES = 0.09$).

Sex predicted more positive RFs, and day-level MES moderated these sex effects (see Figure 2, lower right panel). Specifically, the effect of sex was stronger for high day-level MES ($b = 0.16$, $SE[b] = 0.02$, $t = 6.75$, $p < 0.001$, $ES = 0.12$) than for low day-level MES ($b = 0.06$, $SE[b] = 0.02$, $t = 2.46$, $p = 0.01$, $ES = 0.06$). Interestingly, the difference between low and high day-level MES was only on sex days such that high day-level MES was associated with greater positive RFs ($b = 0.13$, $SE[b] = 0.03$, $t = 4.12$, $p < 0.001$, $ES = 0.16$).

As can be seen in Table 3, couple-level MES predicted more positive RFs. Importantly, couple-level MES moderated the effects of conflict. Specifically,

the effect of conflict was stronger for couples high in MES ($b = -0.36$, $SE[b] = 0.04$, $t = -8.82$, $p < 0.001$, $ES = -0.73$) than for couples low in MES ($b = -0.18$, $SE[b] = 0.03$, $t = -4.55$, $p < 0.001$, $ES = 0.09$). Couple-level MES did not moderate the effect of sex (See note 4).

Perceived partner responsiveness (see Table 4).

Conflict predicted less PPR, and MES moderated these conflict effects (see Figure 3, upper panel). Specifically, the effect of conflict was stronger for high day-level MES ($b = -0.42$, $SE[b] = 0.06$, $t = -6.45$, $p < 0.001$, $ES = -0.36$) than for low day-level MES ($b = -0.20$, $SE[b] = 0.04$, $t = -4.57$, $p < 0.001$, $ES = -0.18$). Interestingly, the difference between low and high day-level MES was significant only on conflict days such that high day-level MES was associated with lower PPR ($b = -0.24$, $SE[b] = 0.07$, $t = -3.12$, $p = 0.002$, $ES = -0.19$). Moreover, couple-level MES moderated the effects of conflict. A gender interaction effect was obtained for this effect: For men, couple-level MES did not moderate the effects of conflict ($b = -0.15$, $SE[b] = 0.20$, $t = -0.79$, $p = .434$), whereas for women it did ($b = -0.48$, $SE[b] = 0.20$, $t = 2.39$, $p = .019$). Specifically, for women in couples high in MES the effect of conflict was stronger ($b = -0.51$, $SE[b] = 0.08$, $t = -6.76$, $p < .001$) than for women in couples low in MES ($b = -0.26$, $SE[b] = 0.07$, $t = -3.44$, $p = .001$). Of note, the gender interaction of couple-level MES

Table 4. Fixed Effects of the Models Predicting Perceived Partner Responsiveness Moderated by Conflict and Sex.

Fixed effects ^a	Study 2				Gender diff.
	Estimate (SE)	95% CI	<i>t</i> (df)		
Intercept	5.16 (0.08)	[5.01, 5.31]	68.14 (76.4)		0.89
Conflict	-0.31 (0.04)	[-0.39, -0.23]	-7.53 (63.8)		-1.05
Sex	0.09 (0.03)	[0.04, 0.14]	3.54 (54.4)		0.72
Day-Level MES	-0.03 (0.02)	[-0.07, 0.02]	-1.18 (1014)		-0.47
Conflict* Day-Level MES	-0.22 (0.07)	[-0.36, -0.07]	-2.93 (70.7)		0.12
Sex* Day-Level MES	0.15 (0.04)	[0.07, 0.23]	3.79 (1893)		0.56
Couple-Level MES	0.13 (0.27)	[-0.40, 0.66]	0.49 (78.6)		3.10
Conflict* Couple-Level MES	-0.33 (0.15)	[-0.62, -0.03]	-2.19 (69.8)		-2.53
Sex* Couple-Level MES	-0.03 (0.09)	[-0.22, 0.15]	-0.34 (57.9)		-0.17
Lagged PPR	-0.27 (0.02)	[-0.31, -0.24]	-16.70 (59.3)		-0.22

Note: MES = Momentary Emotional Similarity; PPR = Perceived Partner Responsiveness.

^aConfidence intervals (CI) for fixed effects were based on two-tailed *t* tests with the Satterthwaite approximation method for computing degrees of freedom.

was significant, though the effect reached significance for neither men nor women.

Sex predicted more PPR, and MES moderated the effects of sex (see Figure 3, lower panel). Specifically, the effect of sex was stronger for high MES ($b = 0.16$, $SE[b] = 0.03$, $t = 5.20$, $p < 0.001$, $ES = 0.15$) than for low MES ($b = 0.02$, $SE[b] = 0.03$, $t = 0.52$, $p = ns$, $ES = 0.01$). Interestingly, the difference between low and high day-level MES was significant only on sex days such that high day-level MES was associated with greater PPR ($b = 0.11$, $SE[b] = 0.03$, $t = 3.43$, $p < 0.001$, $ES = 0.11$). Couple-level MES did not moderate the effect of sex (See note 4).

Discussion

We set out to shed light on one type of shared emotional experience – namely, MES – and on the moderating role such experience may have vis-à-vis charged relational events. We operationalised MES using emotional profile similarities, and used it to examine our prediction that relational events occurring on days marked by greater MES would be tied more strongly to relational outcomes than those occurring on days marked by less sharing of such experience. We expected couple-level aggregated indices of MES to show a similar moderating role.

Our day-level prediction received moderate support in Study 1 (which was relatively underpowered) and stronger support in Study 2. Both sexual activities and relational conflicts were tied more strongly (for the better or the worse, respectively) to relational outcomes when they occurred on days marked by greater end-of-day MES between partners. In particular, on days with high (vs. low) MES, conflict was related to more negative and less

positive feelings regarding one's relationship (and to perceptions of lower partner responsiveness). On a similar note, on days with high (vs. low) emotional similarity, sexual activity was related to more positive and less negative relationship feelings (and to perceptions of greater partner responsiveness).

These results echo recent findings demonstrating that shared experiences are more powerful than unshared experiences (Boothby et al., 2014, 2016). Interestingly, Boothby et al. (2016) found that experience sharing exerts its amplifying effect only when the co-experiencer is psychologically proximate (as our romantic partners are likely to be). Using this lens, we can consider MES to be an indirect measure of such proximity. To the extent that two partners report similar emotional profiles, they are likely to feel like they are truly sharing the same experience – for better or worse.

Importantly, our results can also be viewed in an alternative way, with the relational events (sexual activity or conflict) as the moderators. Viewed in this manner, the role of emotional similarity would depend on the context in which such similarity occurs (“making” similarity more positive on sexual activity days, and more negative on relational conflict days). This view resonates with Butler's (2011) position, noted earlier – that emotional synchrony (or similarity) is neither good nor bad in itself; instead, its role depends on the relational context, with relational events determining the effect of emotion similarity.

Our couple-level prediction did not receive support in the less powerful Study 1 (which had fewer level-2 units), but did garner partial support in Study 2, in which relational conflicts among couples with higher aggregated (i.e. couple-level) emotional similarity were tied more strongly to relational outcomes. In

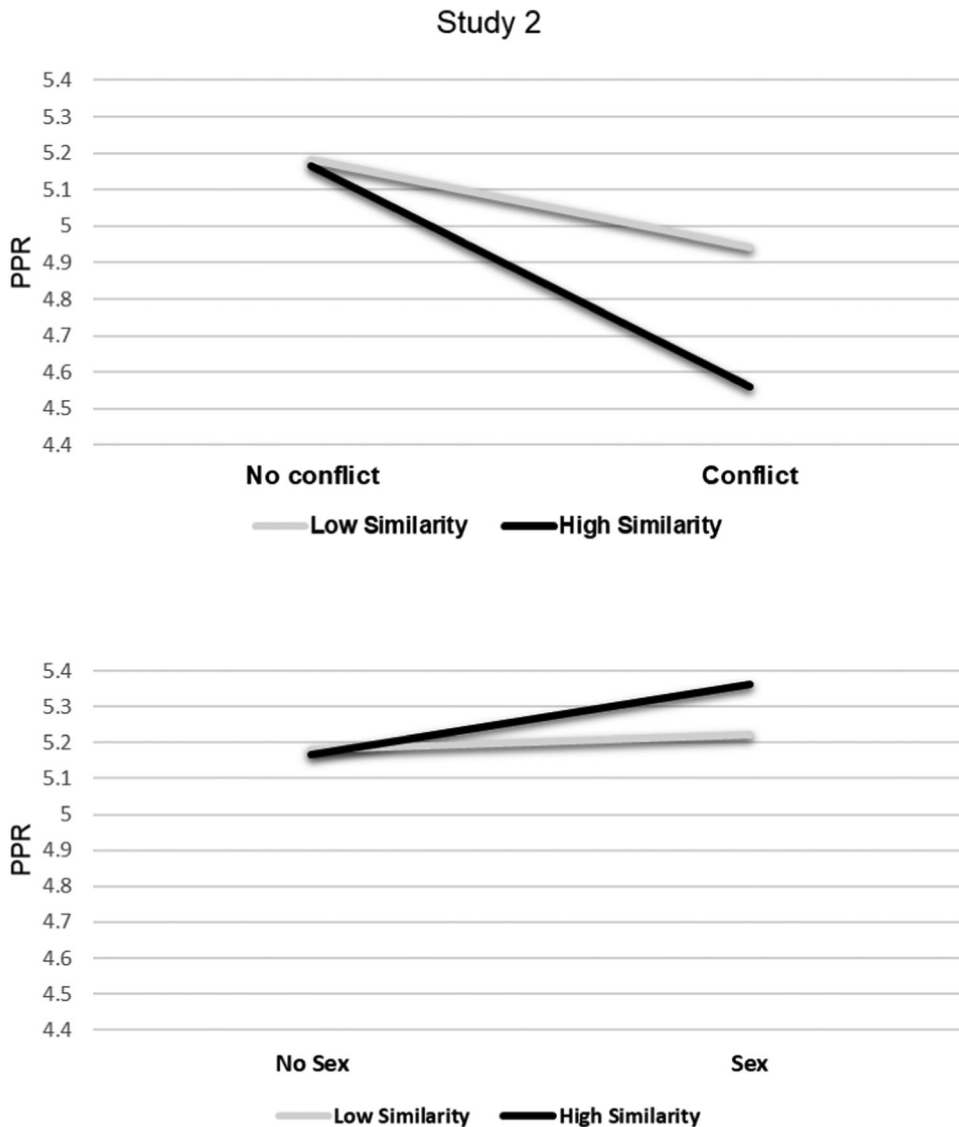


Figure 3. The effects of relational events (conflict and sex) on perceived partner responsiveness for days high (+1 SD) and low (−1 SD) in emotional similarity. Effects presented are collapsed across gender.

contrast, *aggregated* emotional similarity did not play a role in the outcomes of sexual activity. Interestingly, the moderating effect for PPR was qualified by an interaction with gender, such that it was significant only for women.

It appears that partners' aggregated (or "chronic") emotional similarity matters more as a moderator of the daily effects of conflict (in comparison with those of sexual activity), at least with regards to relationship feelings. This finding echoes Gottman's (1994) work, which suggested that similarity in

responses to conflict may generate escalatory cycles. In contrast, sexual activity's effects are only associated with transitory or at least day-level emotional similarity, and not with the index of more "chronic" similarity. In other words, what matters for the effects of sex is the degree to which the partners' emotions are similar at the end of a particular day (relative to themselves), and not their overall tendency to be similar over multiple days (relative to other couples); in short, the consequences of sexual activity are tied to local, but not global, similarity.

Limitations, caveats, and future directions

In interpreting the pattern of findings found in our two studies, several caveats merit mention. First, like all daily diary studies, our results were based on self-reports, with their attendant strengths and weaknesses (Bolger, Davis, & Rafaeli, 2003). Examining the phenomena at hand using other methods (e.g. behavioural observations) would be very informative.

Second, though our work included an internal replication, both samples were comprised of relatively well-adjusted couples. It is important to examine shared emotions and profile similarities in more diverse samples, including ones affected by acute or chronic stress (e.g. health problems, life transitions).

Third, we must be cautious when inferring any directionality in the results. Though we considered emotional similarity as a moderator, it could also be viewed as an outcome of the interactive effects of relational events and momentary relationship quality. Viewed as such, sexual activity (or relational conflict) may bring about more (or less) emotional similarity as a function of (momentary) relationship quality. Still, this too would mean that the association between emotional similarity and daily relationship outcomes is more pronounced on days of charged relational events. Importantly, our findings regarding the moderating role of aggregated emotional similarity on conflict days cannot lead to such an alternative explanation, as the moderating variable was defined at the couple (rather than the day) level.

Finally, and most importantly, our studies do not assess MES at the very moment in which physical intimacy or conflict occurred. Instead, MES was calculated based on the emotions reported at the end of the day on which partners experienced these events. This limits our ability to make strong causal inferences when stating that MES amplified the effect of sex or conflict (see Sened, Lazarus, Gleason, Rafaeli, & Fleeson, 2018). More frequent assessments of emotions could help address this temporal issue to a degree, though ultimately, any assessment based on self-reported mood will have some temporal remove. Finally, it will be advisable to further examine the moderating role MES has in other relational events (support, capitalisation, leisure activities, etc.) and their outcomes.

Conclusions

The current work contributes to our growing understanding of couples' daily shared emotional

experiences. Additionally, it highlights the importance of the daily experiential context in which this sharing occurs (i.e. whether the day was marked by conflict and/or by sex). As leading relationship researchers have recently argued, a fuller understanding of relationship processes (like emotion sharing) requires greater attention to the role of context (Finkel, Simpson, & Eastwick, 2017). The obtained interactions between shared emotions and charged relationship events demonstrate the complex and contextualised nature of dyadic emotional similarity. They can also inform practitioners focused on couples' emotional experiences by helping further refine clinical models of dyadic emotions (e.g. Greenberg & Johnson, 1986). Currently, most emotionally-focused couples' interventions tend to highlight the need for exploring, understanding, and validating one's partner's emotions, and thereby encourage partners to "get closer" to each other's experience (Wiebe & Johnson, 2016). The current work goes further by suggesting that emotional similarity can indeed be advantageous in certain moments, but may actually be disadvantageous in others. Specifically, our results suggest that moments of conflict exert less negative impact when partners are able to maintain some emotional dissimilarity. In contrast, moments of physical intimacy exert more positive impact when partners are able to achieve greater similarity; in fact, without such similarity, sexual intimacy may not be as good – or good at all – for the relationship.

Notes

1. No correlations were removed in Study 1. Only 7 profile correlation were removed in Study 2 which represent 0.25% of all the correlations.
2. Due to convergence problems no random variance was allowed for the level-1 interaction terms between conflict/sex and D.L. MES.
3. At the suggestion of the editor, we also examined a fuller model in which couple-level MES was included as a predictor of β_{3ij} , β_{4ij} , and β_{5ij} . The key results were unchanged; additionally, some findings related to 3-way cross-level interactions in the prediction of positive RF and PPR were obtained. These are presented and briefly discussed in the OSM (<https://osf.io/6apq7>).
4. We computed contrast effects to determine whether the interactions of couple-level MES with conflict and with sexual activity differed significantly, after reversing the sex effects (so that both have a similar sign). Of the three contrast effects, one (for PPR) was non-significant ($b = 0.29$, $SE[b] = 0.19$, $t = 1.52$, $p = 0.133$), a second (for negative RF) approached significance ($b = 0.20$, $SE[b] = 0.10$, $t = 1.98$, $p = 0.052$), and the third (for positive RF) was significant ($b = 0.30$, $SE[b] = 0.11$, $t = -2.73$, $p = 0.008$).

Acknowledgements

GL is grateful to the Azrieli Foundation for the award of an Azrieli Fellowship supporting his work. Study 2 was funded by the Israeli Science Foundation grant (#615/10) awarded to ER.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by Israel Science Foundation [grant number 615/10].

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